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Indian Science Congress to focus on rural development

THE PIONEER **January 3, 2006**

The 93RD Indian Science Congress will come out with a 'Hyderabad Plan of Action' on the role of science and technology in the integrated rural development, and its recommendations will be incorporated in the next five-year plan of the country.

Prime Minister Manmohan Singh sets the stage for the inauguration of the five-day long prestigious event on Tuesday and it will be attended by about 6,000 delegates, including three noble laureates and five renowned scientist from 29 countries. They include USA, UK, Germany, Japan, Brazil, Sweden, Pakistan and Bangladesh.

The annual conference is being hosted for the first time by an agricultural university-Acharya NG Ranga Agricultural University. The sprawling campus of the varsity in Rajendarnagar in the outskirts of Hyderabad has been fully decked up for the occasion with several huge *pandals* coming up to host the programmes.

The prime Minister will also inaugurate "Barat Nirman-Science Exhibition" depicting the developments, achievements and contribution of science and technology in India's development.

Prof IV Subba Rao, the general president of 93rd ISC, said that the core theme of the congress would be the "Integrated Rural Development: Science and Technology".

"This was also the theme of Indian Science Congress 30 years ago. But if you take the rural conditions they remain the same. Science has advanced so much, technologies have been developed but still the rural Indian is continuing in the same fashion. Therefore it is now time again to at least re-visit the rural areas and get the feedback from all the scientists and then give some kind of Hyderabad plan of action for the rural development," he said.

Another highlight of the congress would be the 'National Virtual Congress of Farmers' to be conducted by President APJ Abdul Kalam on January 5. This will be an interactive session between the President and the distressed farmers of five crisis ridden states of Andhra Pradesh, Maharashtra, TmilNadu, Orissa and Rajasthan. "The farmers will raise their issues and the President will give the Government perspective and his own views," Prof Subba Rao said.

President Kalam will also launch 'Mission 2007: Every Village-A Knowledge Centre' and interact with the children at the Children's Science Exhibition.

The three Noble Laureates, participating in the Congress, include Prof Amaratya Sen from UK, Prof RR Ernst from Switzerland, who developed NMR imaging and Dr Wangari Maathai, a Nobel Peace Laureate from Kenya.

Another session of the Congress will be exclusively dedicated to the media's perspective on the rural development.

"Media's advantages is they get feed back both from the government as well as grass root level from villagers etc on the development. Therefore, we wanted to take the advantage of the media persons and know how they view where did we go earlier and did we succeed in rural development. If not why

and in what direction we should proceed to develop the country," said Prof Rao.

Prof Raghuvardhan Reddy, the vice chancellor of ANGRAU, said that the organizing committee has booked all the hotels and guesthouses for 6,000 delegates. "We are expecting the participation of 750 school children from all over the country for whom we have made separate arrangements," he said.

As the attack on the Indian Institute of science in Bangalore has created a stir, security arrangements at the Congress venue have specially been tightened and no unauthorized person will be allowed to enter the cqmpus.

All eyes on India Science Award

THE FIRST India Science Award, carrying a cash reward of Rs 25 lakh, will be presented by Prime Minister Manmohan Singh on Tuesday at the 93rd Indian Science Congress (ISC) in Hyderabad.

The biggest cash award in the scientific and academic world in India will be presented to an outstanding scientist, whose name will also be announces on the same day.

Prof IV Subba Rao, the general president of Indian Science Congress said that the winner will be chosen by a high power committee, for which an elaborate procedure has laid.

Atahe award was announced three years ago by the then Prim Minister Atal Bihari Vajpayee to give a big boost to the scientific and technological research in the country.

A lot of curiosity and interest is prevailing in the scientific community about the first winner of the prestigious award. "We are looking forward not to the individual but to the sort of work which will be acknowledged and appreciated," a scientist associated with the ISC said.

On January 5, President APJ Abdul Kalam will present the Young Scientists' Awards. The cash component of this award has also been enhanced from Rs 5,000 to Rs 25,000. Earlier, the general president of ISC used to present these awards but now it will be presented by the President.

Swaminathan favours trade body for ryots

'It can warn of shortages, surpluses in major farm product'

THE HINDU **January 5, 2006**

HYDERABAD: Agriculture scientist M.S. Swaminathan on Wednesday stressed the need for setting up a separate trade organization for the agriculture sector that could support farmers without attracting adverse actions on the grounds of trade distortions in the global market.

Called Indian Trade Organization, the agency could have an arrangement similar to the World Trade Organization's system of blue, green and amber boxes under which the support extended by the government to farmers could be categroised without violating WTO agreements.

It could also serve as a brain and information bank to enable the Government to take informed and pro-active decisions. "It will help to build a long term memory system in relation to home and external trade and help checkmate adverse global trade trends by stimulating timely national action."

The ITO, he said, could also keep a watch on farming activities to provide timely warnings on potential shortages and surpluses in major agricultural commodities. These could avoid wild fluctuations in their prices, and provide guidance to small and marginal farmers so that they could be saved from "the onslaught of the subsidy, technology and capital-driven agribusiness paradigm of OECD countries."

Dr. Swaminathan said there was a need for special risk mitigation and price stabilization funds for the farm sector and to restructure the various technology missions and small farmers' agribusiness consortia. They need to be brought under a "competent professional management," with time-bound goals. The mission directors should be eminent professionals and be in position for at least five years. Addressing the 93rd session of the Indian Science Congress, which began here on Tuesday, Dr. Swaminathan also called for declaring a national year of agriculture renewal beginning from April 13, the Baisaki day, this year. This, he said, was essential to make the country understand the "sad plight" of the farmer community and regard it as the custodian of food security and national sovereignty and not just beneficiaries of some small government programmes. It would also help assure farmers that the government measured agricultural progress not merely on the basis of production targets, but also on the basis of real growth in farmers' income. The yearlong programme could end with the adoption of a national policy on farmers by Parliament. The National Commission of Farmers will give a draft of the policy in April this year and this can be discussed with farmer organizations between May and December. It would be finally adopted the 60th anniversary of its Independence.

The agriculture sector, he said, required a renewal, especially in the context of the growing number of suicides among farmers. He called for a reduction in the interest rates on agricultural loans and extension of crop insurance to all farmers and all crops.

Farmers in Punjab, Haryana switching to zero-tillage sowing

THE HINDU **January 7, 2006**

Report a saving of Rs 1,000 to 1,500 per acre not much difference in yield

- **Improves soil health and increases productivity**
- **Machine can be used without ploughing the field**
- **Technology enables diversification and inter-cropping**
- **Farmers want subsidy on new machines**

KARNAL: Progressive in Haryana and neighboring Punjab are taking to zero-tillage sowing of wheat for resource conservation and improving soil health and productivity. Nearly 40 percent of the farmers in the Karnal-Kurukshetra belt are using the zero-tillage machine to sow seeds without ploughing the field. Most farmers have reported a saving of about Rs., 1,000 to 15,00 an acre in terms of time, diesel, herbicide use and water.

Several others are tentative about using this technology, as there is not much difference in yield. Some farmers, talking to visiting pressmen from New Delhi, even reported a drop in yield per acre. For six years Saheb Singh of Haryana, who owns about 100 acres, has been sowing his field with zero-tillage machines. He reports a saving of Rs. 1,000 to 1,200 an acre.

The Government is subsidizing the machine, which costs more than Rs. 20,000, though it is now being manufactured indigenously. Still, farmers find it unaffordable. Most of them custom-hire the machine at Rs. 250 an acre.

According to R.K. Malik, Director of Extension and Research, Department of Agriculture, of the total cost of Rs. 18000, Rs. 3,200 has been given as subsidy for the indigenous machine. Zero-tillage prevents burning of residue on the field after harvest. Efforts are under way to improvise the machine for rice cultivation without raising nurseries.

Samar Singh, a scientist with the Directorate of Wheat Research Karnal, said the State Governmental organizations, State Departments and the Indian Council of Agricultural Research to promote zero tilling in the Indo-Gangetic region, where over-drawal of groundwater and the rice-wheat cropping pattern resulted in loss of productivity and a fall in the water table. “We want to revive the soil and change the ecology forlongterm sustainability.”

Forty percent of the farmers in Haryana and more than 60 percent in Punjab reportedly switched to zero-tillage for inter-cropping and diversification. In this method seeds and fertilizer are put into narrow slits created with knife type furrow openers that plough the land as they sow on the residue.

Leaving the residue from the previous crop help in regenerating soil and prevents lodging of plants under adverse weather conditions.

The technology is being used for sowing chickpea on raised beds, wheat on wide beds, and intercropping of chickpea with sugarcane, wheat with sugarcane, wheat with lentil, and maize with pea.

PM CALLS FOR NEW RURAL TOWNSHIP

THE PIONEER **January 7, 1006**

Prime Minister Manmohan Singh has said that "new functional townships" must be developed in rural India, away from existing cities but equipped with basic infrastructure, to attract new investment in the manufacturing and services sectors in our villages. Inaugurating the 93rd Indian Science Congress at Hyderabad, he highlighted the need to encourage people living in villages to continue to do so. Despite the advances made in science, he regretted, the trend of enforced migration to urban areas continues unabated.

Spelling out his vision of rural India, the Prime Minister said that Public policy must respond to an important trend in the Indian economy.

While the share of agriculture in national income is falling rapidly, the share of population dependent on agriculture is not declining as rapidly. This is creating rural distress and contributing to enforced migration to urban areas. The only sensible response to this trend, he stressed, is for scientists and technologists to develop technologies so that productive jobs can be created closer home for those of our citizens who live in villages.

Dr Singh said that the modern agrarian, industrial and services economies must co-exist side-by-side in rural areas. People can then live in well-equipped villages and commute easily to work, be it on the farm, or in the non-farm economy.

This Prime Minister pointed out that all this opens up opportunities for new technology development. Agricultural universities must be intellectually alive to such possibilities and develop courses and programmes to "encourage people living in rural areas to continue to live there as the quality of their life is improved and more and more modern amenities are provided for them," he said.

Dr Singh quoted from late Prime Minister Indira Gandhi's speech to the Indian Science Congress in 1976, "The overwhelming majority of our people live in villages and will continue to do so for years to come. I would go further and say that we don't even want to up-root them.

"We have launched Bharat Nirman, a time-bound programme to improve rural infrastructure, including rural roads, power, housing."

All over the world, urbanization has brought comfort and stimulation; but who could claim that it has not given rise to complicated problems? Rural life should be so enriched as to prevent the migration of people and resources from villages to towns. Expedients worked out in countries where the agricultural population forms but a small part of the work force cannot serve our country."

Dr Singh observed that Indira Gandhi's words ring true even today.

"Our strategy for rural India has to be one of improving the quality of life in village India, based on easily accessible and appropriate technologies, so that the people can continue to live where their forefathers have for generations and yet live comfortable and decent lives."

He added, "There is much that modern science and technology can do to realize this vision. Rural infrastructure has to be improved."

Referring to the initiatives taken by the Government in each of these areas, he said: "We have launched Bharat Nirman, a time-bound programme to improve rural infrastructure, including rural roads, power, housing, telecom and irrigation facilities."

The Indian Science Congress paid tributes to the work of Dr Y Nayudamma, who was among the first to urge scientists to help in integrated rural development. Dr Singh recalled how Nayudamma had initiated the Karimnagar Project in Andhra Pradesh to bring together scientists, technologists, extension workers and community development staff. "If will be interesting to see what lessons were learnt by that experiment and how we can take forward that initiative," he said.

The PM noted that the Indian villager has, indeed, benefited from the contribution of science and technology.

"However, there still remains the challenge of bridging the development gap between urban and rural India; of improving rural infrastructure and in the final analysis, forever ending the so-called divide between Bharat and India," Dr Singh concluded.

Bharatpur emerging as the largest producer of honey

THE HINDU **January 12, 2006**

Centre to support poor and landless farmers

- **National Beekeeping Board to be strengthened**
- **Support price issue to be given "due consideration"**

JAIPUR: Honey is the buzzword in Bharatatpur district of Rajasthan! A call was made in the town this past weekend to improve the quality of bee-keeping activities and diversity the production of commodities obtained from honey. A record 960 metric tonnes of honey was produced in the district during 2004-05.

Bharatpur district in eastern Rajasthan is fast emerging as the largest producer of honey, gaining recognition on a front other than the world-famous Keoladeo National Park. Bee keeping launched as an alternative avocation nearly six years ago, has growth tremendously and provided employment to over 2,000 youths.

The Union Minister of State for Food Processing Industries, Subodh Kant Sahai, addressing, Subodh Kant Sahai, addressing a workshop of beekeepers in Bharatpur over the weekend, assured them of full support of the Central Government. He said the Centre would shortly formulate a policy to support the poor and landless farmers taking up beekeeping as their livelihood.

Mr. Sahai said the Centre would strengthen the National Beekeeping Board and provide assistance to it for establishing a laboratory to test the quality of honey. The workshop was organized by the Board and the Lupin Human Welfare and Research Foundation, which took the initiative of launching bee keeping in the district six years ago.

The Union Minister pointed out that his Ministry's attempts to promote bee-keeping would aim at increasing the production of honey to 60 lakh tones, while the issue of announcing support price for honey would be given "due consideration", He said the techniques for packaging, storage and transport should be improved to achieve new targets.

The participants in the workshop, while calling for exemption of honey from the application of value added tax, felt that bee-keeping had a great potential for generating employment if it received support from the State.

The Union Agriculture Secretary, Radha Singh, said the quality production would ensure good amount of export of honey.

Double bill

THE STATESMAN **January 23, 2006**

Cultivating two rice crops annually in semi-arid tropical regions is good for soil fertility, claims study.

CONTINUOUS submerged paddy cultivation doesn't harm soil as believed. Rather, it, improves fertility as compared to other agricultural systems, claims a study by researchers from Hyderabad based International Crop Research Institute for Semi Arid Tropics (ICRISAT) and National Bureau of soil Survey and Land Use Pattern, Nagpur.

The study found that land used for growing two rice crops every year has higher organic carbon and nitrogen content than that under rice in rotation with an upland crop such as pulses, or under other arable systems. More importantly, it helped prevent degradation of calcareous soils (found in 229 million hectares) into sodic (high sodium content) soils. The study was conducted at eight sites in semi-arid tropic (SAT) regions of Karnataka, Andhra Pradesh, Tamil Nadu, Rajasthan and Maharastra.

"The findings are against the conventional research that promotes rotating paddy cultivation with other crops and dissuades double paddy farming," says Jhon David of the Allahabad Agricultural Institute. The study was published in the December 25 issue of *Current Science* (Vol. 89, N0 12).

Maintaining soil fertility is a major challenge in SAT regions, where the soil is generally poor and high temperature results in rapid decomposition and loss of organic matter. Besides, farmers in these regions cannot afford expensive mineral fertilizers. Therefore, it is imperative to follow agronomic practices that are good for the soil.

But some experts question the significance of the research. "Double cropping of paddy may improve the carbon nitrogen content. But have they calculated the amount of water required for growing two crops of paddy?" asks G Narayanasamy of Delhi-based Indian Agricultural Research Institute. He believes growing the same crop continuously plays havoc with the soil's physical, chemical and biological properties.

However, KL Sahrawat of ICRISAT, the lead author of the study, says, "We are not preaching what farmers should grow, but simply saying that paddy has comparative advantage in flood plains."

The study shows that submerged soil accumulates more carbon and nitrogen mainly due to the action of anaerobic bacteria. Also, organic matters decompose faster in the presence of oxygen, while anaerobic conditions

delay the process through formation of recalcitrant complexes.

Besides, carbon in submerged soil reacts with fluids secreted by paddy roots, which are acidic in nature, to form carbonic acid. The acid converts the calcium in the soil in to calcium bicarbonate, which readily dissolves in water. This reduces the ability of water to dissolve sodium compounds present in the soil, preventing it from turning sodic and so less productive.

Preserving soil fertility is crucial to achieving a sustained increase in productivity. Once the soil loses fertility, no amount of nutrients (fertilizer or manure) can completely restore it, says Sahrawat, adding, “It is important to appreciate that for centuries, paddy-paddy cropping has been an example of sustainable fertility maintenance.”

Organic farming a boon for Rajasthan

THE STATESMAN **January 23, 2006**

NAWAIGARH (Rajasthan): Jan. 22 – "After all the Pandavas (of Mahabharata) turned hard rocky surface into cultivable land through sheer dint of labour," observes wisely the *tau* (family patriarch) of the Saini parivar, speaking about the transformation of the family's rain-reliant, semi-arid land into a thriving organic farming field Shekhawati region of Rajasthan.

"Bilkul ji," (absolutely right), nods nephew Murlidhar.

Saini, 27, in agreement as the septuagenarian family head recounts the success story of the Sainis of Chelassi village, about 7 km from Nawalgarh. The Sainis grow wheat, vegetables such as cauliflower, potato, tomato, radish brinjal, bindi, carrot and others almost round the year on the 10-acre land, jointly owned by five brothers.

"Each family gets rupees seven to eight thousand a month," beams the village elder. Till they took to organic farming some years ago, the same land gave them hardly a couple of thousand rupees a month.

Yes, the Saini are just a few of the hundreds of thousands of farmers benefited by the M.R. Morarka-GDS Rural Research Foundation, headed by well-known industrialist and former Union minister Mr Kamal Moarka.

GDS stands for Gannon Dunkerley & Company that, among other things, make conveyer belts used in airports.

Joint action to clear riverbank of slums

The Times Of India **January 28, 2006**

New Delhi: Delhi government, MCD and Delhi Police will initiate joint action to remove slum clusters from Yamuna Pushta starting February.

Following the court's directive to clean Yamuna, the authorities have decided to remove slums from the banks of the river to prevent pollution. Notices will be served to dwellers. The government, however, will again be faced with a difficult sitiation over the relocation issue. About 252 acres of land have been acquired by the slum department of MCD for relocation purpose. Delhi government is planning to relocate slum dwellers in one-room tenement in multi-storeyed apartment complexes. The government had estimated the cost of each dwelling unit as Rs 1.55 lakh. Of this, the Centre was willing to pay Rs 40,000. However, now the Centre is willing to give at least 50% assistance under Jawaharlal Nehru National Urban Renewal Mission.

Delhi urban development minister A k Walia said: "This will be a large scale project. But it will take some time to take off. We are trying to explore the possibility of releasing 197 acres out of 250 acres earmarked for the relocation project." The government is planning to relocate 15,000 *jhuggi* dwellers of 41 clusters on 197 acres.