

‘RPCAU will be the prime mover of second Green Revolution in eastern India’



RC Srivastava
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The fourth oldest agricultural university in India, Dr. Rajendra Prasad Central Agriculture University (RPCAU), formerly known as Rajendra Agricultural University (RAU) has played an important role in agricultural development in the eastern states. Located at Pusa in Samastipur, Bihar, the varsity has now upgraded to Central University in May 2015. It is seen as a big driver of second Green Revolution, expected to be taken place in the region. **Dr. RC Srivastava**, Vice Chancellor, RPCAU talks to **Mohd Mustaqim** on the various issues related to second Green Revolution and agricultural research in the region.

The Government has accorded the agriculture sector, so what do you expect for the next fiscal?

In addition to higher allocation for agricultural research and education, I shall like the government to focus on (i) reducing post harvest losses through first level processing at local level and improvement in market linkage

(ii) management of challenged ecosystem viz., water logged areas of eastern region and rainfed areas with special emphasis on those located in regions receiving more than 750 mm annual rainfall. This is very important because 33 percent of rainfed area receives more than 1100 mm rainfall and another 31 percent area receives

750-1100 mm rainfall.

The agricultural subsidies are much lesser in developing countries as compared to developed ones. In contrary, the dependency on the sector in developing countries is high than developed countries. Do you feel that the government should prop agriculture sector with influx of subsidies to put India at par with them?

The government should prop up agriculture sector not by direct subsidy but by enhanced spending in infrastructure and providing extension services. The village based agriculture extension workers who were primary source of knowledge have disappeared and input suppliers i.e, seed store, insecticide, pesticide sellers have become major source of information which is often biased.

In view of the fact that only 50% of population has bank accounts and 2% of them use ATMs, what would be the impact of demonetisation on Rabi season? Further, how do you envisage the blow to the larger crop of Kharif preceded by Rabi due to demonetisation and subsequent emphasis on cashless transactions?

The impact of demonetisation on Rabi operations have been minimal in Bihar. During Nov 9 to Nov 25, 2016 when GoI allowed acceptance of Rs 500 notes for seed purchase, the seed unit of my University sold seeds worth Rs 10 lakhs in small denomination notes. In last week of November, I had sought report from my all KVKS (Krishi Vigyan Kendras) about the progress of Rabi operations and was informed that no significant

adverse impact is there.

Agriculture research and education in India have played a vital role in Green Revolution in the past. What further challenges do you see lying in front of agricultural research to mitigate the food security for the increasing population of the country?

Integrated farming system, suitable mechanisation, affordable reliable irrigation, proper input supply chain and a robust market chain is required to reduce the discomfort level of small and marginal farmers

At present about 50 percent of India's population is deriving its livelihood from agriculture and generating just 16 percent of GDP and annual growth varies from 1 to 5 percent depending upon vagaries of monsoon. Further, we are using 105 million hectare of cultivated land to produce 270 million tonnes of foodgrains.

For me the future challenge for the entire agriculture fraternity in general and agriculture research in particular are following:

Select production zones as per natural resource base and infrastructure and develop agriculture technology in such a way that we are able to have an annual productivity of 7.5 tonnes/

ha in 10 M ha, 6 tonnes/ha in 20 M ha, 5 tonnes/ha in 20 M ha and 2 tonnes/ha in another 20 M ha in the next 30 years. This will produce 395 M tonnes from 90 M ha. So 15 M ha land can be retired from foodgrain production to partially horticultural crops and fodder crops and partially to non-agricultural uses. This can help reduce the population deriving livelihood from agriculture to 20-25 percent, generating 15-20 percent of GDP and growing at 6-8 percent. This may look a tall order but we have capability and we can do it.

Unfortunately, small and marginal farmers who produce food, are food insecure. What measures need to be taken for them?

Integrated farming system, suitable mechanisation, affordable reliable irrigation, proper input supply chain and a robust market chain are required to reduce the discomfort level of small and marginal farmers.

Despite, the state of Bihar, has never ending groundwater, thanks to good rainfall and Himalayan rivers flowing through the Gangetic plains, farmers are highly dependent on high-cost diesel pump sets for irrigation during the Rabi season, what are the faultlines do you see in the matter?

The biggest faultline in this case is non-availability of electricity both in terms of quantity and quality. Another faultline is land holding distribution. About 94 percent of Bihar's farmers are small and marginal out of which 38 percent own less than one hectare. Even this land is scattered across the village. Thus, the size of the plot at one place owned by one

person is around 1,000 sq m and, therefore, it is not economical for him to have his own tube well. One of the options can be to promote entrepreneur who can install a tube well runs on electricity along with underground pipeline network to deliver water. The cost of the system can be subsidised. However, this subsidy should not be in the form of one time payment. It should be in form of EMI payment to bank who will finance the system. The EMI payment should be linked to annual inspection to ensure that the system is running satisfactorily. This will reduce the number of fly by night operators. With convergence of MGNREGA with this, the cost per hour will be approximately Rs 40 per hour against present market rate of Rs 200 per hour making irrigation affordable and reliable.

Rajendra Agriculture University (RAU) is now a Central University, how would it benefit the research and education in the varsity, particularly the farming community?

Conversion of Rajendra Agricultural University to a Central Agricultural University will be a boon to education, research and extension. All three activities are being strengthened to develop technologies compatible to socio-economic needs of farmers.

How has been the journey of RAU in agricultural research and education and how has the varsity changed the farming landscape?

Rajendra Agricultural University has been pioneer in agricultural research and education in Bihar. The students of this University are

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holding quite senior and important positions in Central Government, State Governments and industry. Through development and release of varieties of almost all crops grown in Bihar and production technologies, it has changed the farming landscape of Bihar. The maize revolution which has made maize as cash crop of Bihar was initiated by efforts of RAU scientists.

The Central Government has been saying that the second Green Revolution will be taken place in the eastern states. Thus, RAU's role will be crucial in this phase, so how much the varsity has prepared itself to bring the change on the ground?

Dr.RPCA will become the prime mover of second green revolution in eastern India. It has initiated various research projects to provide technical backstopping to five major initiatives of Ministry of Agriculture & Farmers' Welfare, Govt. of India. They are 'Har Khet

Ko Pani' Soil health management, Enhancing the pulse production, more crop per drop and doubling the farmers' income. Besides, the University is establishing two Centres-of-Excellence, one on water management and another on Study on Impact of Climate Change in mid-Ganga Basin. It is also planning to upgrade programme on MBA (Agri-Business Management) in School of Agri-Business and Rural Management which will offer two courses of Agri- Business Management and Rural Management. This school will be the first to offer MBA in Rural Management in Bihar and Jharkhand besides probably even eastern Uttar Pradesh. The University is extensively upgrading its infrastructure to meet up these new challenges.

What makes RAU different from other agriculture universities?

It is fourth oldest agricultural university in the country located in a challenged ecosystem. The mandate of the University covers areas dotted by poor productivity and poverty despite abundance of natural resources. The challenge is to develop livelihood opportunities using new technological advances which is compatible to socio-economic conditions of that social group. To meet one segment of this challenge, we have initiated a projects to identify livelihood opportunities for a social group which is at bottom of the social hierarchy. They are Mushahar, classified as Mahadalit by Government of Bihar. No other University faces such diverse social group which need to be catered to make dream of the Prime Minister true 'Sabka Sath, Sabka Vikas'. **R&M**