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डा. मंगला राय

सचिव एवं महानिदेशक

DR. MANGALA RAI

SECRETARY & DIRECTOR GENERAL

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website

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भारत सरकार

कृषि अनुसंधान और शिक्षा विभाग एवं

भारतीय कृषि अनुसंधान परिषद्

कृषि मंत्रालय, कृषि भवन, नई दिल्ली 110 001

GOVERNMENT OF INDIA

DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION
AND

INDIAN COUNCIL OF AGRICULTURAL RESEARCH

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D.O. Secy.(DARE) & DG (ICAR)/2005/1090
Dated the 30th December, 2005

Dear Colleague,

Wish you and family a very Happy and Prosperous New Year -2006.

This time of the year provides us a special opportunity to take a stock of our achievements, shortcomings in the year that has just gone by and to review priorities, set new goals, approach and to renew pledge to work with far greater velocity and vigour to attain new heights in serving the cause of science and society.

The Year -2005 was an eventful year for the Council. I thank you for the strong support and cooperation that helped Council to effectively discharge its assigned mandate in the service of the nation. I would like to mention a few of the important developments that have brought the Council in the forefront at the national and international arena.

From the very beginning of the year -2005, the rehabilitation of tsunami hit areas was a national priority. Our research institutes and SAUs provided the required technological backstopping to put the farming and fishing back on the track. In some areas, we converted adversities into opportunities bringing new technologies and technology led growth.

As you are aware that so far 499 Krishi Vigyan Kendras (KVKs) have been established in the rural districts across the country. To improve their effectiveness further in the process of rural transformation the first ever national level conference of KVKs was successfully held in New Delhi during October. The fact that the Hon'ble PM inaugurated this conference and Hon'ble Agricultural Minister guided through and through amply brings out the importance the country attaches to the institution of KVKs in effective rural transformation in a system perspective with system wide system approach.

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In order to capitalize on the emerging opportunities at the global level and also to convert threats, if any, into opportunities, a major step in form of Indo-US Knowledge Initiative has been undertaken. The Knowledge Initiative Board has met in Washington in December, 2005 and priority areas in the field of HRD, institutional capacity building, agri-processing and marketing, emerging technologies such as bio-technology, nano-technology, and Natural Resource Management are identified.

The Council implemented the NATP and encouraged by its success, we are now in advanced stages of finalizing with The World Bank, the National Agricultural Innovation Project (NAIP) to address the researchable issue of production to consumption system, rural livelihood security and strengthening basic and strategic areas of frontier science. The project is successfully appraised in December, 2005 and is likely to be in place by July 2006.

Strengthening of new potential areas in each of the State Agricultural Universities is on with a budget outlay of Rs.100 crore and a path breaking seed project at a total outlay of Rs.200 crore involving 85 institutions would be in full bloom right from the word go.

The Council has also introduced several O&M reforms in the administrative and financial wings of the Council to improve the overall efficiency in the system. The overall salient achievements are listed in the enclosure.

I also would like to wish good health and happiness to all our colleagues who superannuated during the year.

Finally I would like to mention that with the cooperation of each and every staff member, the Council is gaining much more strength and prestige by each passing day and I am sure that in the days ahead we will continue to be a vibrant organization.

With my best regards,

Yours sincerely


(MANGALA RAI)

Distribution:

1. All DDGs/ND (NATP)/ AS(D) & Secretary, ICAR/ AS & FA/ Directors (Finance, Personnel, Hindi, Publication and Works)/ All ADGs / All Scientists, DSs and USs at Hqrs.
2. All Vice Chancellors of SAUs/VC, CAU
3. All Directors of ICAR Institutes/ All PCs/ All ZCs
4. Copy for information to PS to AM.

DEPARTMENT OF AGRICULTURAL RESEARCH & EDUCATION
(INDIAN COUNCIL OF AGRICULTURAL RESEARCH)

Salient Achievements : 2005

During the year 2005, in discharge of its mandated activities, the ICAR through its network of Institutions and Agricultural Universities generated very useful technologies to improve agricultural productivity in the country and also implemented some major policy reforms. Some of these are as follows: -

Research

- Developed and released about **108 new varieties and hybrids** in crops with improved quality, higher yield and resistance to disease and drought.
- Launched **Strategic Research Initiatives in Network Mode** on Molecular breeding; Gene Pyramiding; Mycotoxins - Aflatoxin management; *Alternaria* blight- integrated management; Wilt - Integrated management; Tree Borne Oilseeds; Quality protein maize; Identification of Salt Tolerance Genes in Marine Tiger Shrimp etc.
- New activities under the Network projects on Transgenics in Crops and Insects Biosystematics put to implementation.
- Resource Conservation Technologies (RCTs) in form of **Zero Till Technology** now cover about 2 million hectares resulting in a net resource saving of Rs. 600 crores annually to the farmers.
- Developed technologies for recycling/reuse of vast quantities of agro and industrial residues for making pulp, paper, boards, briquette etc. from jute. **Designed proto-types** for promoting farm mechanization.
- Developed a **low cost, reliable and an efficient low energy precision** application (LEPA) irrigation system working at low pressure for irrigating close-growing crops.
- Sequenced complete genome for 2 Asia 1 field isolates for **Foot and Mouth Disease**.
- Developed **rapid PCR based diagnostic for buffalo pox virus, having zoonotic importance** for different serovers of *Salmonella* in chicken eggs and of Johne's disease in Caprine.
- Four goat kids were born through *in vitro* fertilization (IVF) process, one female calf was born through Embryo transfer technology in Yak.
- Standardized method for making cottage cheese from Yak milk

- Produced empty capsids of FMD virus in yeast using DNA approach for better vaccine production.
- Developed technology to achieve production of **675 kg/ha of prawn** and carp within 130 days in Pen culture. The technology offers opportunities for additional employment, income generation and also improving the nutritional security.
- Produced *in vitro* marine pearls successfully in Indian Pearl Oyster *Pinctada fucata* and in the abalone *Haliotis varia* through tissue culture.
- Bred two species of sand lobster (*Thenus orientalis*, *Scyllarus rugosus*) successfully in captivity and larval cycle completed in three to four weeks time.
- Domesticated and bred in captivity Kuruma shrimp *Marsupenaeus japonicus*.
- Carried out **National Marine Fisheries Census - 2005** in all the maritime states excepting Tamil Nadu and Pondicherry, covering 5.9 lakh fishermen households, 2,445 fishing villages, spread over a distance of 6,200 km coastal length of India.
- Achieved captive spawning of three varieties of damsel fishes namely *Dascyllus trimacultus*, *Pomacentrus*
- Developed **RT-PCR (Nested diagnostic kit)** for the early diagnosis of white muscle disease in the post-larvae of scampi, *Macrobrachium rosenbergii*.
- Demonstrated at field level raised bed planter, zero till planter, straw bailer, straw combine bailer, pneumatic planter and vegetable planter.
- Developed a low-cost push-type safflower harvester and a standard recipe for dyeing cotton with pigment from safflower petals.
- Method for making cottage cheese from Yak milk standardized. Mozzarella type cheese developed using buffalo skim milk and vegetable fats employing direct acid method.
- Technology for area specific mineral mixture to increase productivity of bovines in Tarai and hill region of Uttaranchal and Uttar Pradesh commercialized
- Developed an **Integrated National Agricultural Resource Information System (INARIS)** involving state of the art Data Warehousing and GIS techniques into a national database.
- Filed **41 Patent** applications.

Education

- Supported the **State Agricultural Universities** for setting up Niche Areas of excellence for cutting edge science;
- Implemented the guidelines for National Professor and Emeritus Scientists for promoting excellence in basic and applied sciences.
- Supported the candidates from under privileged states including northeastern states, A&N Islands by reserving two percent seats in U.G. and P.G. admissions through ICAR in all the SAUs, CAU, DUs and CUs.
- Gave thrust to distance education through Educational Satellite named **EDUSAT** in cooperation with Indira Gandhi National Open University.
- Provided 100 % support for construction of 33 girls hostels in Agricultural Universities and 50 percent support for construction of 10 International Students' hostels.
- Established the ICARNet for connecting the libraries of 35 agricultural universities and 69 ICAR institutes and 182 off-campus colleges and regional stations of ICAR / SAUs institutions.

Development

- **Sanctioned 59 new Krishi Vigyan Kendras (KVKs)**. The total number of KVKs stands at 499 in fulfillment of the target of establishing KVKs in each of 588 rural districts including 10 newly created rural districts.
- Increased provision of soil and water testing facilities to 326. Organized for the first time a national conference of the Krishi Vigyan Kendras (KVKs) to improve their relevance and effectiveness in the process of technology assessment, refinement and dissemination. On this occasion a set **44 CDs, and 28 technical bulletins on agricultural technologies developed** were released by the **Hon'ble Prime Minister of India**.
- **7500 tonnes of breeder seed** of different crops including potato were produced and distributed as per the state indents so that the farmers could get the quality seed at the appropriate time. A new programme on seed production in crops and fisheries has been approved by the Government for a total amount of approx Rs. 200 crore.
- Established a **National Research Center on Pomegranate** at Solapur to give boost to the process of diversification of agriculture towards enhancing the farm production, income and nutritional security.
- Provided complete **technological backstopping** to the national efforts in rehabilitation of areas **devastated by Tsunami**.

Policy

- Signed a joint declaration between with the USA for an **India-US Knowledge Initiative** on Agricultural Education, Research, Service and Commercial linkages. The Knowledge Initiative Board (Indian side) has also been constituted and met in Washington.
- Provided fresh thrust to **organizational and systemic reforms** of ICAR **through rationalization** of manpower strength, commercialization, public-private linkages, delegation of powers etc. in pursuance to the recommendations of the two committees headed by Dr. M S Swaminathan and Dr. R A Mashelkar. Further, the Score Card System has been introduced for objective and quality assessment of scientists on direct recruitment and career advancement. **Set up** an empowered committee to operationalize the **National Fund for Strategic Agricultural Research**.

Others

- Launched a **special drive** for filling up vacancies of scientists for SCs & STs categories.
- **Signed MoUs** with Governments of **Chile, Brazil, Afghanistan, Cornell University** and a **Joint Declaration** each with USA (Indo-US Knowledge Initiative in Agricultural Research and Education) and Israel for international cooperation in agriculture. Fresh work plans signed with a number of Consultative Group on International Agricultural Research.
- A new **National Agricultural Innovative Project (NAIP)** with the support of Work Bank has been planned and is likely to be launched from July 2006. The main features of the project include research on production to consumption system (market), sustainable livelihood security in disadvantaged areas (poverty) and basic and strategic research at the frontiers of science (productivity). The efficiency of scientists increased by 30 per cent through the O&M reforms under the erstwhile National Agricultural Technology Project supported by World Bank.
- Put in place the system of electronic remittance of funds for 56 institutes that reduced the time consumed in remitting the funds from 7 days to 1 day.
