



## Annual Report 2005-2006

वार्षिक प्रतिवेदन २००५-२००६



राष्ट्रीय कृषि अनुसंधान प्रबंध अकादमी  
राजेन्द्रनगर, हैदराबाद-५०० ०३०, भारत

National Academy of Agricultural Research Management  
Rajendranagar, Hyderabad-500 030, A.P., India  
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## Preface



It gives me immense pleasure in presenting this document as a comprehensive record of the Academy's activities and accomplishments during 2005-2006. The Academy has completed 29 years of dedicated service to the nation. During these years the Academy has made significant contribution in manpower development in National Agricultural Research System (NARS) of India, and also other developing countries in South Asia and Africa. The Academy has also taken up research and consultancy projects and services, depending upon the specific needs of the clientele organizations.

A significant achievement of the year was that the Academy has been identified as the major center for Learning and Capacity Building (L & CB) activities. At the behest of the Council, the Academy through a series of policy dialogues, developed guidelines for material transfer in inter-institutional collaborative projects under the overall framework of BD Act 2002. During this period, 44 programmes were held, and a total of 969 scientists, teachers, administrators and finance officers were trained. Six off-campus programmes, one international programme for administrative and finance officers of Nepal Agricultural Research Council and five ICAR sponsored Summer Schools were the other highlights of the year. This year, many of our faculty and staff members participated and presented papers in various workshops and seminars at various institutes in the country.

Research projects were prioritized with reference to the current needs. Broad outline for the protection of various forms of intellectual property (IP) in the ICAR system at the level of individual scientists, institutes and headquarters was prepared, which may serve as a background material for the Special Task Force constituted by ICAR for developing guidelines for IP protection.

The efforts brought recognition to the Academy in different forms. Dr T. Balaguru, Head, ARSMP Division received "The World Medal of Freedom" for significant accomplishments in the field of Agricultural Research Management. Dr Jagannadham Challa was awarded Fellow of the National Academy of Veterinary Sciences for his contribution as a Veterinarian. The ICAR Inter-institutional Tournament (Southern Zone) was hosted by the Academy, and NAARM won several prizes in various events. The Academy also bagged several trophies at the Annual Rose Show organized by Hyderabad and Secunderabad Rose Societies.

I wish to take this opportunity to put on record our sincere thanks and gratitude for the support, guidance, and encouragement received from Dr Mangala Rai, Director General, ICAR, and Secretary, DARE, Govt. of India; Dr J.C. Katyal, DDG (Education), ICAR. Also, I am grateful to various Directors, administrative and finance officers of ICAR for their cooperation and advice from time to time.

Thanks are due to the Editorial Board, especially my esteemed colleagues Drs D. Rama Rao, T. Balaguru, P. Manikandan, S.K. Nanda, B.S. Sontakki, and V.K.J.R. Rao, in bringing out this Annual Report. The assistance of Mr R.V.V.S. Prakasa Rao, Ms G. Aneja and Mr P. Namdev in layout design and printing is highly appreciated. All the faculty members and Heads deserve appreciation for their timely supply of information. I compliment all technical, administrative and supporting staff as well as trainees, students and research associates for their meaningful contributions to the Academy in its endeavour.

Hyderabad  
December 26, 2006



(R.K. Samanta)

Executive Summary

# Executive Summary

Executive Summary

A system dynamic model was developed for manpower forecasting in agriculture, which includes the demand supply scenario and the employers expectations call for evolving a market driven education system, which demands a strong component on soft skills like communication and presentation, language, negotiation and marketing skills.

The Academy brought out a handbook on “Developing Winning Research Proposals in Agricultural Research” with an aim to bring awareness and to enable scientists prepare research proposals for competitive grants.

A preliminary analysis of leadership styles in ICAR characterizes the leadership roles of scientists as participative type, risk avoiding, low in strategic thinking, and moderate achievement motive.

The parameters for rating and methodology for assessment of qualitative rating of colleges in SAUs have been developed in consultation with peer group from NARS and further fine tune it in consultation with Centre for Forecasting and Research (C-fore), New Delhi; National Assessment and Accreditation Council (NAAC), Bangalore, and Education Division, ICAR.

Against the total budget allocation of Rs 780 lakhs, 98.9% of the budget i.e., Rs 771 lakhs was utilized during the year 2005-06. Special audit reported no audit para pending against the Academy.

The Academy bagged several prizes in the Annual Rose Shows organized by the Hyderabad Rose Society and Secunderabad Horticultural Society. The Academy hosted ICAR Inter-institutional Tournament (Southern Zone) from January 9 to 13, 2006 at Railway Recreation Club Grounds, Secunderabad, in which 570 sports persons from 22 ICAR institutes participated.

Introduction

**Introduction**

Introduction

## Introduction

The National Academy of Agricultural Research Management (NAARM) was established by ICAR with a mission to enhance the performance of National Agricultural Research System (NARS) by capacity building in research and education, policy planning and management, and to foster a scientific culture that can make the NARS productive. NAARM envisages facilitating dynamic management in agricultural research, education and related innovation systems contributing towards sustainable agriculture leading to continued food, nutrition, livelihood and environmental security.

The Academy has undertaken the onerous responsibility of improving the vast NARS manpower towards making it more relevant, responsive and competitive. Different modes have been adopted. These are: training programmes, workshops, group discussions, policy interactions and seminars. Its scope has been further widened to encompass tailor-made training, especially for the international participants from the developing countries. Research on management problems has formed another major activity of the Academy. This provided an input for improvising training and the policy support. The Academy functions as a think-tank to provide policy support on the various issues related to personnel, Organizational & Management reforms and Human Resources Development, which are aimed at improving the overall efficiency and effectiveness of the NARS.

The Academy strives to generate a sense of fraternity and inculcate a scientific work culture amongst the agricultural scientists in the country. Being a unique institution of its kind, the Academy is well poised to augment its usefulness and aims to emerge as an institution par excellence to facilitate and support culture of dynamic management in agricultural research and education institutions. Over the years, the Academy has grown to impart training, which encompasses need-based research, and also to function as a resource centre. Several other activities such as consultancy, policy-support, partnership, and institutional linkages are also gaining more prominence than realized hitherto.

### Mission

To enhance the performance and responsiveness of National Agricultural Research System by building capacity in research and policy planning, and fostering an ethos of scientific culture and dynamic management in agricultural research, education and extension.

### Mandate

The Academy is mandated to enhance the efficiency and effectiveness of NARS through:

- Training, research and consultancy;
- Developing NAARM as a think-tank for organizational renewal and management of change;
- Strengthening partnerships, linkages and networking at national and global level;
- Providing policy support to apex agencies; and
- Enabling development of need-based regional management capabilities in agricultural research, education and extension.

### Objectives

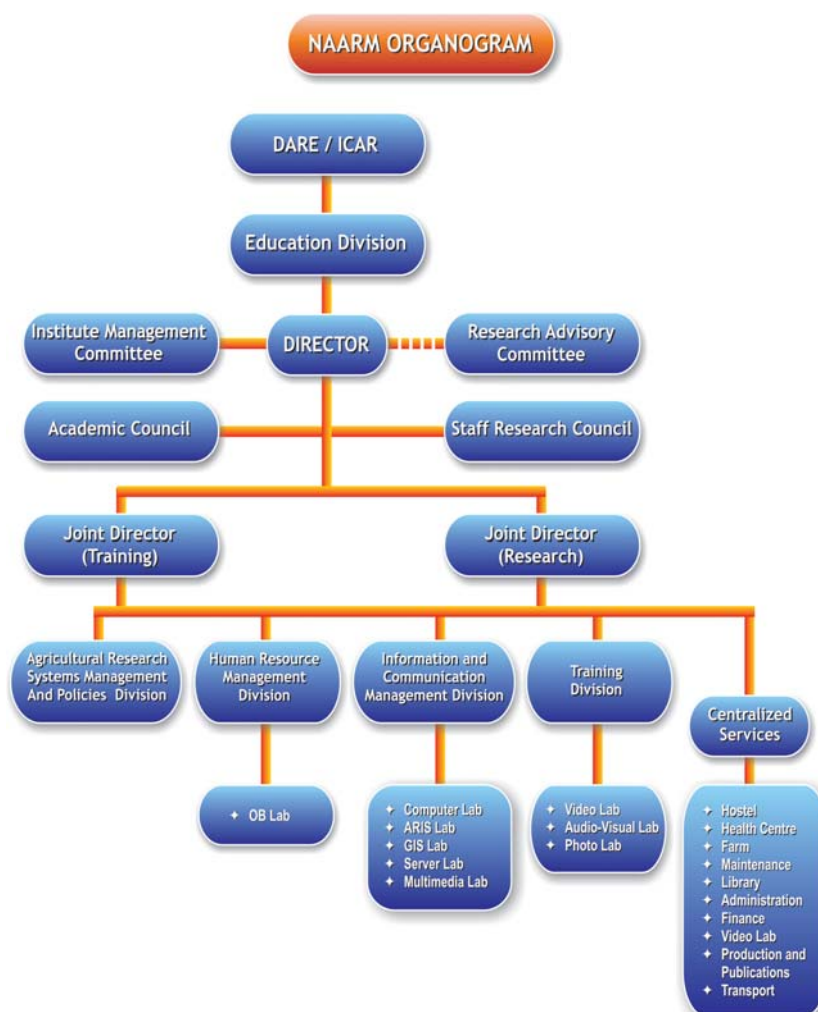
Commensurate with the mandate, the following objectives are set for the Academy:

- To *plan* and *organize* need-based, multi-tier, stakeholder-driven and customized on-campus and off-campus training programmes;

- To *improve* management of agricultural education and enhance teaching-learning effectiveness;
- To *facilitate* technology dissemination management through innovative Information and Communication Technology (ICT) tools;
- To *undertake* research, offer consultancy and manage dialogues to backstop training and provide policy support to NARS;
- To *develop* suitable management tools, practices and processes for facilitating organizational effectiveness;
- To *assemble* quality resource material and function as a repository of information and ideas;
- To *promote* facilitative work culture for fostering creativity and innovativeness;
- To *improve* administration and financial management;
- To *forge and strengthen* partnerships, linkages and networking at regional, national and global levels for the stated objectives; and
- To *take up* other related activities for fulfilling the mandate from time to time.

### Organizational Structure

The Academy is led by the Director supported by Joint Director(Training). The faculty is placed in three scientific divisions supported by technical and administrative personnel. The organizational structure of the Academy is given in Fig. 1.



## Human and Financial Resources

### Human Resources (as on 31.03.2006)

Category	Sanctioned Strength	Posts Filled	Vacant Positions
1. Research Management Positions	03	02	01
2. Scientific	40	21	19
3. Technical	56	51	05
4. Administrative	44	43	01
5. Supporting	40	40	-
Total	183	157	26

### Budget Allocation and Expenditure (2005-06)

#### Plan

(Rs. in lakhs)

Sl.No.	Head of Account	Sanctioned	Expenditure
1.	Estt. Charges	39.00	33.45
2.	T.A.	12.50	12.49
3.	Other Charges	63.50	63.49
4.	(a) Other Items (Furniture & Fixtures)	7.50	7.44
	(b) H.R.D.	7.50	4.49
	(c) Library	30.00	29.99
	Total	160.00	151.35

#### Non-Plan

(Rs. in lakhs)

Sl.No.	Head of Account	Sanctioned	Expenditure
1.	(a) Estt. Charges	374.60	374.57
2.	T.A.	6.00	5.98
3.	Other charges	239.50	239.49
	Total	620.10	620.04

#### Resource Generation

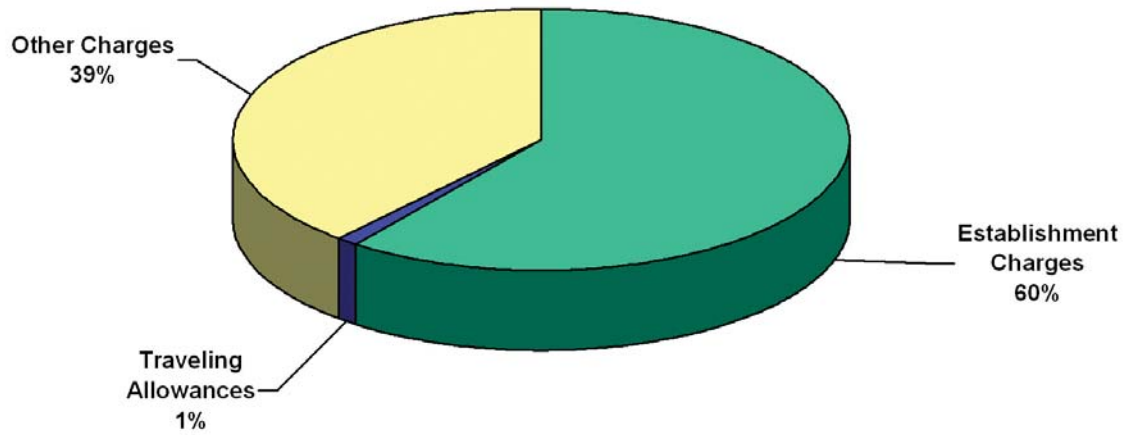
Target for resource generation

= Rs. 40.00 lakhs

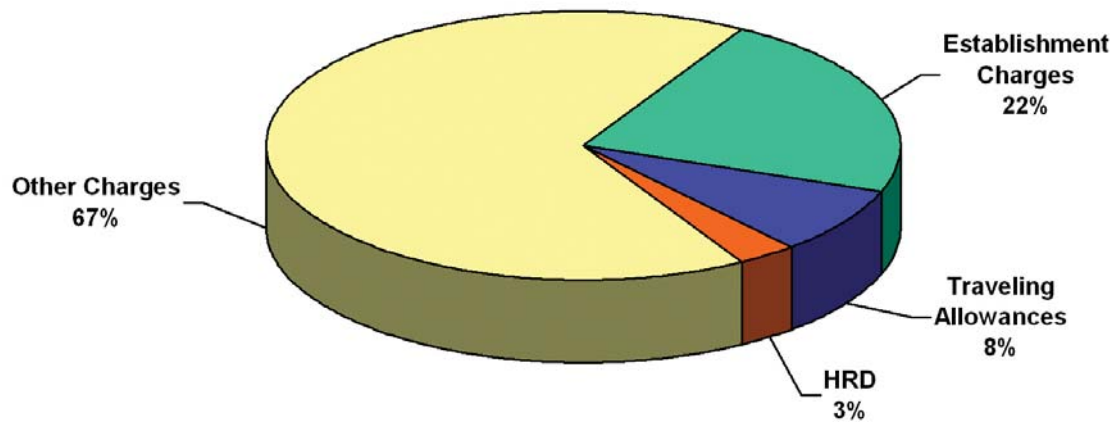
Total Resource generation

= Rs. 46.09 lakhs

NAARM Budget (2005- 06) – Non Plan Expenditure



NAARM Budget (2005- 06) – Plan Expenditure



Capacity Building

**Capacity  
Building**

Capacity Building

## Capacity Building

One of the major activities of the Academy is to organize training programmes for the benefit of scientists and teachers at all levels working in the NARS. The glimpse of the various training programmes organized at the Academy during the period under report is as follows:

Programme	No. of Programmes	No. of Participants
FOCARS	1	26
Refresher Courses and Summer / Winter Courses	10	183
Management Development Programmes	4	63
Executive Development Programmes	1	8
Senior Programmes	15	321
Sponsored Programmes (On-campus)	4	166
Sponsored Programmes (Off-campus)	6	174
Workshops	2	23
International Programmes	1	5
<b>Total</b>	<b>44</b>	<b>969</b>

### Foundation Course for Agricultural Research Service (FOCARS)

FOCARS, Foundation Course for Agricultural Research Service is the flagship of Academy. It is designed for the entry-level scientists newly recruited to Agricultural Research Service of the ICAR. The course aims at providing exposure to the trainees on the concepts and principles of project management with special emphasis on project formulation and implementation.

Programme	Duration	No. of Participants	Coordinators
79 <sup>th</sup> FOCARS	June 27 to Oct. 24, 2005	26	K. Vidyasagar Rao & G. P. Reddy



The course is structured into three phases. The first phase of training is at the Academy, which concentrates on agricultural scenario, research methodology, data analysis, project management, information technology, administration and communication skills. The second phase, Field Experience Training (FET), is held at the regional stations of SAU's and ICAR Institutes. The FET is designed to impart training in problem identification and project formulation. This phase helps the trainees develop an appreciation for rural life and environment. In the third phase of training at the Academy, the trainees are given an exposure to those areas, which would strengthen their skills in scientific writing, presentation, and improvement of communication skills.

The overall programme also includes educational visits to various research institutes in and around the twin cities of Hyderabad-Secunderabad to familiarize the trainees with the research activities of different national and international organizations.

### Refresher Courses and Summer/Winter Schools

As a philosophy of continuous human resource development, scientists and faculty of NARS were trained in different areas of agricultural research management, human resource management, and information and communication management, in order to equip them with new knowledge and skills. The Education Division of ICAR sponsors summer / winter schools with a view to orienting the scientists and teachers on the recent advances in the field of agricultural research and education management. These programmes are recognized by ICAR for the Career Advancement Scheme of scientists and faculty members.

Programme	Duration	No. of Participants	Coordinators
Development of High End Resource Materials for Effective Teaching and Learning	April 28 to May 18, 2005	18	A. Gopalam V. K. J. Rao
Summer School on Advances in Agricultural Research Project Management	May 5-25, 2005	25	T. Balaguru Director Summer School
Advances in Educational Technology	May 11-31, 2005 & Sept. 28 to Oct.18, 2005	17 6	Jagannadham Challa M. Narayana Reddy M. M. Anwer
Information Technology in Agriculture	June 1-21, 2005	20	K. Vidyasagar Rao G. R. K. Murthy C. Sriram
Summer School on Customizing Multimedia Lesson Modules for Varied Learning Sequences with Special Reference to SAU System	June 29-July 19, 2005	26	Dr A. Gopalam Director Summer School
Summer School on GIS based Decision Support Systems for Sustainable Agriculture	July 5-25, 2005	24	N. H. Rao Director Summer School
Winter School on Implications of World Trade Organization and other Allied International Agreements on Indian Agriculture	Oct. 4-24, 2005	27	S. K. Soam Director Winter School
Human Resource Management	Jan. 4-24, 2006	10	P. Manikandan M. M. Anwer, K. H. Rao
Computer-based Multimedia Presentation	Feb. 16 to Mar. 8, 2006	10	K. M. Reddy V. K. J. Rao

### Development of High End Resource Materials for Effective Teaching and Learning



The two central themes emphasized in the programme were computer-aided instruction in agriculture & multimedia applications in agriculture. It sensitized the participants to the concepts of computer-aided instructional technology in agricultural research and education and also developed competence in the production of computer-aided instructional materials.

### Advances in Agricultural Research Project Management



The participants were acquainted with appropriate tools and techniques for efficient and effective management of research projects through major themes like changing agricultural scenario, sustainable agriculture, technological forecasting, research management process, project management cycle, MS Project, etc.

### Advances in Educational Technology

This new HRD initiative was meant exclusively for the teachers of agricultural education involved in UG and PG courses to develop need-based knowledge, skills, and competencies among themselves and to systematically apply the principles of instructional design and development to the planning and preparation of teaching aids. The three theme areas covered were: i) Educational technologies and their application, ii) Innovative and modern learning approaches and processes, and iii) Personality development.

### Information Technology in Agriculture

The course emphasized on tools of IT, which enable global networking of agriculture sector and bring farmers, researchers, managers, and policy-makers together through exchange of ideas and information. The programme reviewed and updated the latest trends in the applications of IT in agriculture and acquainted the scientists and teachers with the tools and techniques of data management, analysis, information management, and its retrieval. It also covered various aspects like advanced data management and analysis, information and communication management through networking concepts, content development and presentation skills, decision support systems.

### Customizing Multimedia Lesson Modules for Varied Learning Sequences with Special Reference to SAU System

The programme sensitized the faculty members of State Agricultural Universities to the arising areas of computer-aided instructional technology, and also equipped them with the skills needed for the development of multimedia lesson modules.

### GIS based Decision Support Systems for Sustainable Agriculture

A decision-support framework for managing agricultural production systems for sustainability was developed among the participants. The training also facilitated the understanding and use of GIS and image processing software tools such as ArcGIS, ArcView, ArcIMS, Geomedia, ERDAS, and IDRISI.

### Implications of World Trade Organization and other Allied International Agreements on Indian Agriculture



The implications of various international agreements in the post-WTO regime on Indian agriculture, the consequent policy and institutional imperatives for agricultural research systems were focussed in this programme. The major areas covered were TRIPS and its implications, protecting biodiversity in post-TRIPS regime, PPVFR Act and its implications for agricultural scientists, GATS and its implications on agricultural education and research, SPS and TBT agreements, commercialization of technology, institutional strategies and mechanisms for IP management.

### Human Resource Management



The agricultural professionals were sensitized to the issues of human resource management in the organization; to the theories and practices of human behaviour in agricultural research and education environment, and to develop skills of participants for effective management of people at work. The broad areas covered were human resource development, human resource servicing, human resource utilization that deals with individual, group, and organizational behaviour, and on-site practical case studies in HRM.

### Computer-based Multimedia Presentation

In appreciation of new advances in information technology, the support resources created by multimedia especially in teaching / training and in research organizations, this training got ground among the agricultural scientists and faculty. The programme provided hands on experience on multimedia tools to produce various learning modules that help enhance teaching-learning effectiveness and also better understanding and appreciation of use of multimedia in technology development and transfer.

### Management Development Programmes (MDP)

Management Development Programmes are meant for the newly appointed heads of the divisions/ departments, project coordinators and zonal coordinators of ICAR and SAUs. The objectives of this type of programme are to develop management competencies at the middle level in the organizational set up, to develop issue-focused and problem solving approaches in the management of research programmes and divisions, to appraise on issues of administration and financial management, to develop insights into human resource development initiatives and strategies for agricultural research and to sensitize on the behavioural issues of people at work.

The content of MDP is knit around four core themes viz., research management, human resource development, administration and financial management, and information and communication technology. The content is covered through concept awareness lectures, interactive discussions, case study analysis and group presentations. The participants are able to contribute by documenting their specific experiences as cases for inclusion in the resource/reading material under any theme mentioned above.

Programme	Duration	No. of Participants	Coordinators
Agricultural Research Management	April 14-20, 2005	12	Jagannadham Challa K.H. Rao
Intellectual Property Rights in Agriculture	July 26-30, 2005	31	R.Kalpana Sastry S. K. Soam
Performance Assessment of Agricultural Research Organizations	Sept. 20-24, 2005 & Feb. 23-28, 2006	10 10	T. Balaguru R. Kalpana Sastry R. V. S. Rao

### Agricultural Research Management

Research project management, human resource management, information and communication management, and administrative and financial management were covered broadly under this programme.

### Intellectual Property Rights in Agriculture

The programme addressed issues related to recent amendments and enforcement of patent laws and procedures and also various issues related to intellectual property rights in agriculture. The process of patenting, the shortfalls of the present patent system in its application to agricultural research were also discussed in depth.

### Performance Assessment of Agricultural Research Organizations

The programme aimed at identification and measurement of suitable research output and outcome indicators and the methodology for assessing the performance of agricultural research organizations. The topics covered were performance-oriented evaluation system, measurement of research output, measurement of research outcome, and assessment of research management process. The programme enabled the participants to develop a thorough understanding of the methodology through exercises and case analysis.

### Executive Development Programmes (EDP)

The EDP aims to develop proficiency in management among the research management executives, newly appointed Directors, Assistant Directors General, and Joint Directors of ICAR headquarters and Research Institutes. These programmes are intended to develop skills of problem solving approaches for research development and management, to develop insights into human resource development and leadership effectiveness and to appraise on key elements of administration and institute management.

Programme	Duration	No. of Participants	Coordinators
Agricultural Research Management	Dec. 15 - 20, 2005	8	Jagannadham Challa C. Sriram

Agricultural Research Management programme aimed at orienting the participants to develop need-based knowledge and competencies to undertake the responsibilities of research management. It was designed for conceptual awareness and competence building in four theme areas such as scientific endeavour and institute management, administration and finance, infrastructure development and public relations. The programme was structured into interactive sessions by in-house and guest faculty, case analysis and presentations.

### Senior Programmes

Programme	Duration	No. of Participants	Coordinators
Improving Administrative Efficiency and Financial Management	June 15-22, 2005 & Dec. 2-9, 2005	20 21	M. Suresh Kumar V.S. Subramanian
Leadership and Personality Development	June 17-23, 2005	14	M.M.Anwer P.Manikandan
Special Training Programme on Establishment & Financial Matters for Administrative and Accounts Personnel of ICAR Headquarters	June 20-July 3, 2005 & Sept. 15-24, 2005	42 42	M. Suresh Kumar V.S. Subramanian
Networking Essentials for Information Management in Agriculture	Aug. 1-11, 2005	15	G.R.K. Murthy K.M. Reddy
Gahan Prashikshan Va Karyashala	Aug. 4-9, 2005 & Feb. 2-8, 2006	52 17	A. Gopalam S. Pradeep Singh J. Renuka
Participatory Rural Appraisal and Participatory Learning and Action Techniques for Research & Extension in Agriculture	Sept. 22-29, 2005	10	V.K.J. Rao N.Sandhya Shenoy
Developing Winning Research Proposals	Oct. 21-26, 2005	19	Jagannadham Challa D. Rama Rao
Strategies for Stress Management	Nov. 17-23, 2005	11	P. Manikandan K.H. Rao
Managing Video Production for Kisan Channel	Nov. 22 – Dec.3, 2005	8	Janardhan Rao Cheeli A. Gopalam
Agricultural Heritage of India	Dec. 1-2, 2005	11	P. Manikandan R. Kalpana Sastry
Human Resource Strategy for Agricultural Research Organizations	Dec. 13-23, 2005	9	R.V.S. Rao K.H. Rao
Effective Technical Assistance in Management of Agricultural Research	Mar. 24-30, 2006	30	S.K. Soam R. Kalpana Sastry

### Improving Administrative Efficiency and Financial Management



These programmes provided a forum for the administrative and accounts personnel of ICAR to share and discuss their experiences. Also improved the skills and efficiency of the personnel in discharging their functions effectively and for providing constructive administrative support to their superiors in meeting the organizational priorities and needs.

### Leadership and Personality Development

The programme equipped the participants with the knowledge and tools that would help them identify personal impediments for development of effective leadership capacities. The course covered broad areas such as personality typing, personality development and positive personality, emotional intelligence, percepts and practices of leadership, leadership development, common leadership pitfalls, power and influence, and women and leadership.

### Special Training Programme on Establishment & Financial Matters for Administrative and Accounts Personnel of ICAR Headquarters

With a view to improving the skills and efficiency of the administrative and finance personnel in discharging their functions and in providing constructive administrative support to scientific fraternity in meeting the organizational priorities and needs, These programmes were organized covering various broad areas such as rules and bye-laws of the ICAR Society, conduct rules, handling of CAT cases, establishment rules, delegation of financial powers and GFR, pay fixation, CCS (CCA) rules, values and ethics in administration, total quality management, and stress management, etc.

### Networking Essentials for Information Management in Agriculture

NAARM, being a hub of activity in the area of information and communication management for NARS, initiated a training programme with a view to provide the knowledge and skills on the various issues related to effective networking and its management. It covered different aspects related to concept of networking, types of networks and their management, file management in networking, applications of networking, concept of Internet, and network security management. In addition to the theoretical orientation and hands-on experience, the programme also facilitated learning through institutional visits.

### Gahan Prashikshan Va Karyashala



This programme was tailor-made for those employees of ICAR who are not directly connected with the official language section but are interested in working in Hindi. It focused on effective and easy use of official language and on facilitative issues needed for following the official language policy. The programme also facilitated deliberations on official language correspondence, more specifically coming under the purview of Act 3 (3), along with the clarifications on a number of points in effective implementation of official language policy in their institutes.

### Participatory Rural Appraisal and Participatory Learning and Action Techniques for Research & Extension in Agriculture

Benefits of various appraisal techniques in agricultural research, extension, and farming systems are yet to be realized fully. Keeping this in view, the programme was organized to make the participants understand various Participatory Rural Appraisal (PRA) techniques and their importance in Research, Extension and Farming (REF) systems and to impart the required skills to the participants in using various PRA techniques in REF systems.

Various aspects covered included rapid, relaxed, and participatory rural appraisal and participatory learning and action, principles of RRA & PRA (PLA), validity and reliability of PRA techniques, various participatory rural appraisal techniques, learning reversals in rural appraisal, techniques of field problem identification, and problem tree, intervention, and action plan preparation. The programme enabled the participants to link the PRA techniques and project preparations for research and extension.

### Developing Winning Research Proposals

Every scientist needs to know how to write convincing proposals. In times of increasing competition for scarce research resources, it is vital for the scientists of agricultural research organizations to design projects that can attract external funding. Keeping this in view, the programme was organized to develop necessary skills among the participants for writing research proposals that can win funds from donors.

### Strategies for Stress Management



The stress, if properly coped with, can lead to feelings of challenge, job satisfaction, better adjustment to work and life, and improved efficiency and effectiveness. The programme provided ample opportunities to the participants to gain insight into stress factors and develop appropriate coping mechanisms and strategies.

### Managing Video Production for Kisan Channel

The role of video in education and extension systems in agriculture is becoming increasingly important. Educational television channels, multimedia applications etc., depend on video for their production needs. This programme aimed at equipping the participants with necessary knowledge and skills in planning and production of educational video programmes. The programme covered broad areas such as concept of educational video, video technology, script preparation, video shooting, recording, video editing, scripting, special effects and animation.

### Agricultural Heritage of Asia

This is an attempt to blend the modern day technologies with the rich agricultural practices followed. Vedic literature and proverbs written in the medieval period on various agricultural operations contain a wealth of information. Many such practices are still relevant and need integration for greater resilience and sustainability. Hence, the programme deliberated on issues such as soil management in ancient, medieval, and pre-modern India and its relevance in modern-day sustainable agriculture, water harvesting and conservation in ancient agricultural texts, scope, course content, and sources of literature in agricultural education.

### Human Resource Strategy for Agricultural Research Organizations

Human Resource Strategy (HRS) throws a new way of thinking about organizational functioning and it helps to measure and develop human resource capability to work as partners in formulating and implementing organizational strategy. The HRS calls for both efficiency and effectiveness from researchers so as to keep pace with the rapid changing world priorities in agricultural research. This programme sensitized senior level scientists of NARS to the importance of HRS and to improve their understanding of HRS, essentials of HRS practice, developmental steps in HRS, and capacity building of the researchers in planning and implementation of HRS in their organizations.

### Effective Technical Assistance in Management of Agricultural Research



Realizing the importance of technical support for the scientific endeavour, the Academy has initiated to train the technical personnel of ICAR in execution of research plans from lab to labour management, statistical analysis and report writing, etc. The programme tried to develop their capacity in various areas of agricultural research and also human resource management, effective communication along with personality development.

### Sponsored Programmes (On-campus)

These tailor-made programmes were organized on campus based on the requests from various state departments in different areas of specialisation.

Programme	Duration	Sponsor	No. of Participants	Coordinators
ICAR-CITA Seminar-cum-Workshop on Globalized Agricultural Economy	April 29-30, 2005	ICAR	110	Jagannadham Challa S. K. Soam
WTO and its Implications (for Officers of Department of Animal Husbandry, Govt of AP)	Jan. 30 to Feb. 4, 2006	Govt of AP	15	R. Kalpana Sastry T. Balaguru
Computer and Internet Based Training	March 20-25, 2006	MAFSU, Nagpur	18	D. Rama Rao K.M. Reddy
LAN Management	March 27- 31, 2006	MAFSU, Nagpur	23	G.R.K. Murthy M. Narayana Reddy

### ICAR-CITA Seminar-cum-Workshop on Globalized Agricultural Economy



The programme was jointly organized by ICAR and Centre for International Trade in Agriculture and Agro-based Industries (CITA) to upgrade the knowledge and skills of the participants in the light of recent and contemporary developments and their implications on business, policies, plans, and schemes as well as commercial interest of various stakeholders, and to create an awareness on global issues related to agricultural and processed food. The workshop was centred around on four major themes, viz.

changing market requirements and opportunities for India; research in agri-food trade and challenges for India; emerging research opportunities for Indian agriculture; and future dimensions of research in agri-food business in changing market.

### WTO and Its Implications



The developments of WTO in regulatory measures at the national level in the light of happenings at the global level and to translate the knowledge to ground realities of their targeted beneficiaries were appraised in the programme. It will help the participants to build new avenues for better trading opportunities and enhance their livelihoods in the new competitive global economies.

### Computer and Internet-based Training

The programme could succeed in capacity building of faculty members to enhance effectiveness of teaching-learning using computers and internet in veterinary education. This programme was tailor-made for the faculty members of Maharashtra Animal and Fisheries Sciences University (MAFSU), Nagpur.

### LAN Management

The programme aimed at the use of networking for information management in educational institutions for the faculty members of MAFSU, Nagpur. The programme covered administration management and application of networks for educational purpose.

### Sponsored Programmes (Off-campus)

These programmes were organized in different locations of the country based on specific demands from various organizations.

Programme	Duration	Sponsor	No. of Participants	Coordinators
Improving Efficiency of Scientific and Technical Personnel	April 21-23, 2005	VPKAS Almora	25	P. Manikandan M. M. Anwer
Improving Efficiency of Scientific & Technical Personnel	July 27 to 29, 2005	CIPHET, Ludhiana	30	M. M. Anwer P. Manikandan
Orientation Training Programme for Administrative, Finance & Accounts Personnel	Nov. 9-15, 2005	MAFSU, Nagpur	34	M. Suresh Kumar K. H. Rao
Workshop on Emerging Issues in University Administration	March 7-9, 2006	MAFSU, Nagpur	17	P. Manikandan M.M. Anwer
Orientation Training Programme for the Administrative/ Finance and Accounts Staff	March 7-14, 2006	MAU, Parbhani	30	M. Suresh Kumar B. S. Sontakki
FDP on Educational Methodology and Instructional Technology	March 17-24, 2006	MAU, Parbhani	38	A. Gopalam K. H. Rao

### Improving Efficiency of Scientific & Technical Personnel

Scientists and technical personnel need to learn continuously to keep them updated with the knowledge and skills needed in order to discharge their functions effectively in the organization. Responding to this request received from Vivekananda Parvathiya Krishi Anusandhan Sansthan (VPKAS), Almora and Central Institute of Post Harvest Engineering Technology (CIPHET), Ludhiana, two short courses were conducted at their respective organizations.

These programmes covered the core issues of research project management and human resource management, in an interactive mode to share the experiences of the participants and to develop a better understanding of the issues involved. And also provided knowledge and skills for management of individual, group, and organizational behaviour. The coordinators interacted with the scientists and identified the issues of concern that were considered as obstacles for their effective functioning and the directors were informed of outcomes of this exercise.

### Orientation for Administrative, Finance & Accounts Personnel

Two orientation-training programmes were organized for administrative and accounts personnel of the Maharashtra Animal and Fishery Sciences University, (MAFSU), Nagpur and Marathwada Agricultural University (MAU), Parbhani. Various dimensions related to agricultural education, economic reforms, personnel and financial management, personality development, and other general administrative and financial issues formed the curriculum of these programmes.

### Emerging Issues in University Administration



The interactive workshop sensitized the top functionaries of the University to the emerging issues in university administration that help enhance the performance and image of the university. The workshop covered: emerging issues of change needed in animal science and fisheries science education and research, human resource planning needed in the emerging scenario, strategies of source generation for the university, and image management for the university.

### Educational Methodology and Instructional Technology

The programme apprised on intricate issues related to educational methodology and instructional technology as applied to SAU system like learning, teaching, testing and evaluation, administrative and financial management, and management of change, etc.

## Workshops

In order to facilitate interaction and information exchange among the scientists of the NARS in India and abroad, the Academy holds a number of workshops, seminars, and discussion groups, from time to time, focussing on areas of topical interest. The information emerging from these workshops and seminars serves as useful resource material for many of the Academy's programmes.

Programme	Duration	No. of Participants	Coordinators
Meaningful Learning as a Communication Process	Aug. 23-27, 2005	12	R. K. Samanta N. Sandhya Shenoy B. S. Sontakki
Directors' Workshop on Leadership Development and Strategic Planning	Nov. 8-11, 2005	11	M. M. Anwer B. S. Sontakki R. V. S. Rao

### Meaningful Learning as a Communication Process



The workshop focused on the issues of making meaningful learning as a communication process, and to study the state-of-the-art instructional media and their role in achieving teaching excellence. The workshop was thematically planned and structured with the issues like meaningful communication for experiential learning, effective presentation techniques for scientific communication, human communication in organization for change and development in individuals and organizations, self-managed leadership

to motivate and inspire, using inner rhythm to communicate to win, and media for instruction and instructional design strategy.

### Leadership Development and Strategic Planning



Management research has clearly established that crisis in leadership leads to the decline and death of organizations, while effective leadership leads to success and achievement. Capable and competent leadership requires the understanding of the traits, motives and characteristics of leaders and developing a charismatic personality, which is both impressive and striking. The workshop was organized to sensitize the participants on the concept and process of leadership and strategic management.

This workshop aimed to survey the classical and modern information on leadership and strategic planning and also sought to learn from the experiences of the delegates to forge a new agenda for developing effective leadership skills in ICAR to meet the newly emerging challenges of the 21<sup>st</sup> century. The programme facilitated the participants to develop a strategic plan for their respective institutions for bringing about change in the leadership styles. The action plans and recommendations of each

syndicate group were consolidated in the plenary session, and made available to the participants for further action.

### International Programmes

The Academy is being looked upon by the developing countries to provide training support for their human resource development in the areas of agricultural research and education management. The Academy has developed expertise and excellent facilities to cater to these increased demands from the NARS of various developing countries.

Programme	Duration	No. of Participants	Coordinator
Administration and Finance Management for Delegates from NARC, Nepal	Sept. 12-16, 2005	5	M. Suresh Kumar



The programme was organized under ICAR-Nepal Agricultural Research Council (NARC) work plan for the year 2003-04. The programme aimed at orienting the officers to the modern management concepts and skills that would facilitate improving their efficiency and effectiveness in discharging their functions. Various aspects related to personnel and financial management, personality development, and other general administrative and financial issues formed the curriculum of this programme.

## Feedback

Programme	Feedback	
	Evaluative	Corrective
<b>FOCARS</b>	Overall content and organization of the programme was very good and useful.	Need to reduce the 1 <sup>st</sup> module i.e. National and International Agricultural Scenario and Policy in phase I.  More time schedule be allotted to statistical software for data analysis.  More time on electives.  Up gradation of computer lab. in the hostel
<b>Senior programmes</b>	Good exposure to different areas.  Acquisition of new knowledge and skills.  Both academic and infrastructure facilities provided by NAARM was good.  Interactive, informative and interesting.	More emphasis should be given on communication skills.  Computer assisted instruction topic should have been more practical oriented.  Some topics were routine and need to be deleted.  Special attention should have been given to those who are beginners in computer operation.  Risk Vs efficiency in administration could be discussed.  Supply of relevant computer software to the trainees for their use in back-home situation.  Introduction of educational package tour needed.  Time allotted for multimedia in Educational Technology is not sufficient.  Reduce the fee of the training course.
<b>Refresher courses Summer / Winter Schools</b>	Well planned and executed.  Good exposure and experience.	Success stories of organizations with good linkages to be highlighted.  Resource material of guest speakers are not provided.  Presentation of some topics needs improvement.  Need for more study visits to institutions in and around.
<b>Workshops</b>	Provided a forum for sharing information on topical issues.	Theme ideas are to be identified on need analysis, which change rapidly.  Need for the selection of good resource persons.

Research Achievements

**Research  
Achievements**

Research Achievements

## Research Achievements

The Academy undertakes focused research in the areas of agricultural research and education management, agricultural policy, research project management, transfer of technology, human resources development and information technology. These are primarily meant to serve as input for various training programmes, workshops organized at the Academy and policy support to ICAR. The management problems encountered by the ICAR institutes and the agricultural universities form the basis for undertaking such research. Besides, some policy issues requiring attention of research planners and administrators for the effective implementation of various agricultural programmes are also considered while formulating research projects. A list of the projects carried out is as follows:

Sl. No.	Project title	Sponsor	Investigators
1.	Promotion of inter-disciplinary orientation and inter-institutional collaboration in the NARS.	NAARM	T. Balaguru and P. Manikandan.
2.	Strategies to encourage rural female students in the agriculture education.	AP Cess	D. Rama Rao, N. Sandhya Shenoy, and Sulaiman Rasheed.
3.	Developing multimedia protocols & electronic exchange of information for SAU system.	AP Cess	A. Gopalam and R. Kalpana sastry.
4.	Modeling strategic management action plan for curriculum up gradation for Indian SAU system in the global scenario.	AP Cess	A. Gopalam and S. N. Saha.
5.	Development of decision support tools for agricultural research systems transition towards sustainability.	AP Cess	N.H. Rao and M.N. Reddy.
6.	Capacity building of NARS in application of GRAM GIS in microlevel planning and development for sustainable agriculture.	DST	N.H. Rao, M.N. Reddy, K.H. Rao, G.P. Reddy and S.K. Soam.
7.	Efficacy of PRA for research project formulation.	NAARM	V.K.J.Rao,K.M.Reddy,and C.Sriram.
8.	Transience in organization.	NAARM	M.M. Anwer, B.S.Sontakki and R.V.S. Rao.
9.	Organizational climate in ICAR.	NAARM	M.M. Anwer, B.S. Sontakki, C. Sriram, K.H. Rao and R.V.S. Rao.
10.	ICTs for sharing of agriculture information in rural India.	AP Cess	N. Sandhya Shenoy, D. Rama Rao, N.H. Rao, M.N. Reddy and B.S. Sontakki.
11.	Developing winning research proposals in agricultural research – A case study.	NAARM	Jagannadham Challa and D. Rama Rao.
12.	Assessment of qualitative rating of colleges in the state agricultural universities.	AP Cess	Jagannadham Challa, S.K. Nanda and D. Rama Rao.
13.	Identifying strategic issues and prospective approaches in higher agricultural education system in India to face challenges of GATS.	AP Cess	S.K. Soam and R. Kalpana Sastry.
14.	Leadership styles and effectiveness in ICAR institutes.	NAARM	M.M. Anwer, P. Manikandan, R.V.S. Rao and K.H. Rao.
15.	Agriculture gateway to India.	NAARM	N. Sandhya Shenoy and D. Rama Rao.
16.	Strategic initiatives on bio-technological interventions for augmenting minor oilseed production in Andhra Pradesh.	AP Netherlands BT Prog.	S.K. Nanda, D. Rama Rao, and R. Kalpana Sastry.
17.	Development of online technological forecasting.	NAARM	G.R. Ramakrishna Murthy and D. Rama Rao.
18.	Strategies for enhancing agricultural engineering research output in ICAR.	NAARM	C. Sriram, S.K. Nanda and G.R.K. Murthy.
19.	Impact assessment of fisheries research in India.	AP Cess	G.P. Reddy, B.S. Sontakki and M.N. Reddy.
20.	Training needs assessment of technical staff in ICAR.	AP Cess	R. Kalpana Sastry, S.K Soam and D.Rama Rao.
21.	Role efficacy and motivation levels of ICAR scientists.	NAARM	K.H. Rao, B.S. Sontakki, and G.P. Reddy.
22.	Assessment of 'Transfer of Learning' of NAARM training to NARS.	NAARM	B.S. Sontakki and R.K. Samanta.

## Progress of Research During 2005-06

### 1. Promotion of inter-disciplinary orientation and inter-institutional collaboration in the NARS

#### Objectives:

- To build inter-disciplinary perspectives in the researchers through capacity building activities; and
- To evolve suitable mechanism for effective inter-institutional collaboration through policy interventions.

#### Achievements:

Literature pertaining to Inter-disciplinary orientation and Inter-institutional collaboration were collected. In Inter-disciplinary orientation, the aspects covered were: Necessity: Problem orientation of agricultural research; Programmes amenable for inter-disciplinary dispensation; Intended benefits: Synergism; Evolving appropriate HRD strategy and Policy interventions – Appropriate programme / project appraisal system, relevant HRD strategy, suitable incentive/reward system. In Inter-institutional collaboration, areas like Need: Efficient utilization of infrastructure facilities and expertise; Public – private partnership building and Policy interventions - Procedure simplification, Common facility creation, Suitable credit /risk sharing mechanism were covered.

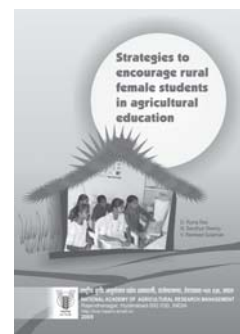
### 2. Strategies to encourage rural female students in the agriculture education

#### Objectives:

- Assessment of growth of female students in agriculture education; and
- Strategies to enhance participation of female students from rural areas.

#### Recommended strategies:

- NARS institutions need to undertake career counselling at the secondary level to motivate students from rural schools to take up higher agricultural education.
- ICAR to come forward with an action plan for implementation of the government policy of promoting science education for women in the form of fellowships, scholarships and other types of financial support.
- ICAR need to take proactive step in identifying and strengthening quality of vocational agricultural education. It can offer incentives in the lines or even better than UGC for colleges offering such identified courses.
- Establishment of agricultural colleges and polytechnics near rural areas and relaxation in qualifying marks or reservation for rural students. Re-orienting the course according to the present employment needs. Diploma course to enhance their skills and market their services after attaining training in need based, location specific areas. Accommodation facilities for girl students, specifically at polytechnics also.
- Campaign for creating awareness regarding the scope of agricultural education through various communication media. ICAR can initiate and organise this in the lines of national literacy campaign on Television and Radio.
- The country needs National Council for Agricultural Education to prepare agricultural education for the new millennium. Develop national action plans and enhance significantly investment in basic education and higher education more accessible to rural students. Implement integrated strategies for gender concern in education. Such a national body will be able to initiate policy action as many strategies mentioned above.



The implementation of the above recommendations should also lead towards a larger number of women graduates in the work force with sizeable number of policy makers and implementers in agriculture.

### 3. Developing multimedia protocols & electronic exchange of information for SAU system

Objectives:

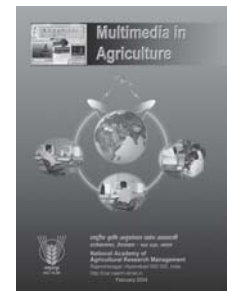
- To organize research on needs by assessment methodology for complimentary and supplementary roles of multimedia packages in Learning Teaching in SAU System;
- To develop appropriate methodology and protocols for the development of multimedia packages and electronic exchange of information in selected curriculum of agricultural science subjects;
- To estimate the efficacy of multimedia & electronically exchanged information for possible integration in class room and distance education;
- To propagate the developed materials by institutional training and train selected SAU faculty for development in their respective field of specialization for capacity building; and
- To estimate the post introduction and post training consequences by supplementing and complementing class room instructions by the introduction of multimedia & electronic exchange of information.

Achievements:

A training programme cum workshop was conducted for a specific group of SAU faculty drawn across the country for CAI & MM multimedia strategy. The workshop was acronymed as computer aided material production (CAMP) strategy for SAU faculty. In a 11 day workshop the participants were given adequate exposure on MM developments aspects and on hands training when the participants were asked to develop a story board and let develop instructional resource module integrating picture, video, audio and other multimedia features. The outcome of this workshop is very significant and following lesson modules were prepared.

- Breeds & varieties of chicken
- Drip irrigation
- Urea treated paddy straw
- Zoonosis – A major public health problem
- Nature & process of communication
- An introduction to harvesting machines
- Agro-techniques in vanilla

A resource book on Multimedia in Agriculture was published.



### 4. Modeling strategic management action plan for curriculum up gradation for Indian SAU system in the global scenario

Objectives:

- To define the process dimensions and also document the action plan matrix for acceptable curriculum up gradation for accommodating global developments and world reactions;
- To develop methodology for curriculum modification for socially acceptable agricultural education under the premises of global change and world developments;
- To document the various steps for curriculum planning, designing & implementation and translate the researched results to field level implementation;
- To ensure continuous curriculum up gradation in order to accommodate the world reaction in education initiatives;
- To study the present system of curriculum planning process in SAU system;
- To identify the key areas of up-coming and arising subject areas which need to be included in the curriculum in SAU system;

- To classify the areas of curriculum at Undergraduate level and extent of desired integration;
- To determine methods of integration of areas pertinent to upcoming themes and demarcate areas for supplementary and complimentary inclusions;
- To suggest ways and means of identification of arising subject areas in terms of course curriculum and strategies for implementing; and
- To document the strategic steps and sequences for curriculum planning process for future curriculum modification concepts.

Achievements:

- A questionnaire on Needs assessment for the Curriculum up gradation for the courses at under graduate level in the Global scenario was developed and the validity and reliability was assessed with sample target population. This questionnaire was administered at GKVK, Bangalore and select group of faculty from agriculture, veterinary, engineering, home science, fisheries through net mailing procedure. This questionnaire covered the aspects like curriculum development need, team working attitude & curriculum planning process, empowerment, work based learning, vocational issues and instructional materials utilization.
- The responses are now evaluated as per the frequency distribution

#### **5. Development of decision support tools for agricultural research systems transition towards sustainability**

Objectives:

- To develop an analytical framework to structure issues relating to agricultural research management with a sustainability perspective;
- To develop decision support systems to plan, prioritize, and evaluate agricultural research programmes for sustainability of production systems; and
- To ensure wide access of the stakeholders to the philosophy, concepts, data bases, knowledge bases, technologies and methods relevant to research, development, policy and practice of sustainable agriculture by their dissemination through the Internet and other media.

Achievements:

- Framework for assessment of agricultural sustainability based on indicators derived from integrating DPSIR and SRL assessment frameworks
- Spatial databases of natural resources and rice production for 4 States (2 for irrigated rice – Andhra and Punjab; 2 for rainfed rice – Orissa and Bihar)
- Agroecosystems (with information up to 5 ha units level) characterized for Andhra Pradesh, Orissa and Bihar.

#### **6. Capacity building of NARS in application of GRAM GIS in microlevel planning and development for sustainable agriculture**

Objectives:

- To develop a GRAM GIS based framework for assessing agricultural production systems at various levels for sustainability; and
- To organize and conduct training programmes on application of GRAM GIS in planning and management for sustainable agriculture.

Achievements:

- Training manuals for learning basic GIS and image processing features of GRAM++ were developed.
- Spatial data for microlevel planning for sustainable development obtained.
- One training programme conducted on use of GRAM GIS.
- Some bugs in GIS software specifically identified.

## 7. Efficacy of PRA for research project formulation

Objectives:

- To examine whether FET through PRA provide opportunities to Agricultural Scientists to understand farmers' needs and aspirations, and suggest available and relevant technological solutions;
- To study whether the FET helps scientists to identify and prioritize field problems related to agriculture, develop multi-disciplinary projects, and transfer technologies effectively; and
- To establish PRA as a valid methodology for developing field problem based research projects by a multidisciplinary and cohesive team of Agricultural Scientists.

Achievements:

It has been observed that PRA is very useful in research project formulation of scientists across disciplines, it helps them to triangulate, validate, and probe the problems and solutions to solve the problems through appropriate technological interventions.

## 8. Transience in organization

Objectives:

- To sensitize ICAR Directors to Transience Management (TM);
- To identify issues for TM in research institutes;
- To evolve action plans for institutional TM;
- To synthesize experience in TM at institutes; and
- To monitor TM at institutes

Achievements:

This study in action research mode consisted of a workshop on transience management wherein the participant Directors were required to develop roadmaps for change with respect to change in structure, technology, physical setting, task, and people in their respective institutes. They were then given two years time for implementing the same and reporting the status of the implementation. Five criteria i.e. size of the plan it's being structured, having details, being complete and listing of the number of issues. were used to measure the change management process in these organizations. The results indicate that of the nineteen participants, fourteen (74%) of the institutions prepared above average vision plans while the rest were below average in terms of transience planning. In terms of plan implementation only six (32%) of the participating institutions submitted the implementation reports all of which were above average and out of them one was excellent two very good and three good. The study has shown that change management is a difficult process and the implementation monitoring needs to be more intense. There seems to be a requirement of hand holding of the change agents (i.e. Directors) by the workshop resource persons who may act as formal consultants to the change management process.

## 9. Organizational climate in ICAR

Organizational climate is a perception of an employee regarding the organization's characteristics. It is result of the interactions of structures such as reporting relations; communication channels, norms, reward systems, accountability etc., and the employee in an organization. The study of organizational climate provides insight in to the structure of the organization and its work processes. This study is being carried out to generate baseline data on organization climate in ICAR Institutes. It also intends to suggest appropriate interventions to develop better and more efficient structures and work processes.

## Objectives:

- To generate baselines data and information on organization climate in ICAR Institutes.
- To analyze and report on the prevailing organization climate in ICAR institutes at both individual institute and ICAR level.
- To offer recommendations, through changes in organization structure and work processes, aimed at improving organization climate at the institute and ICAR level.
- To evolve a system to regularly monitor Organization climate in ICAR Institutes and ICAR as an organization.
- To report, in a structured manner, the prevailing organization climate at individual institute and ICAR level.
- To promote creative and enabling climate in ICAR

## Achievements:

Preliminary results on assessment of organizational climate as perceived by 745 scientists from different ICAR institutes call for suitable interventions to improve the organizational climate of the ICAR. The organizational climate prevailing in ICAR was analyzed in terms of the six climate motives viz., achievement, affiliation, expert influence, extension, control and dependence using MAO-C scale of Pareek (1988). As seen from Table 1 and Figure 1, highest percentage of respondents (26.4%) reported control motive as the dominant motive, followed by dependence (19.4%), expert influence (16.2%), extension (15.1%), achievement (14.9%) and affiliation (8.0%). The desirable motives in scientific research institutions are achievement, expert influence, affiliation and extension for teamwork, greater efficiency and effectiveness with increased output. The observation of control and dependence motive among 45.8 % respondents is not a good sign as it reflects the presence of low job autonomy in the organization. Higher order of cooperation and coordination is not possible in such climate. As could be seen from Figure 2, dependence motive emerged as the major back up motive among 23.9 % respondents. It was followed by achievement (17.2 %) and expert influence (17.0).

Table 1. Dominant and Backup Climate Motives in ICAR

(N=745)

Sl. No.	Climate Motives	Dominant		Backup	
		F	%	F	%
1	Achievement	108	14.95	128	17.18
2	Influence	121	16.24	127	17.05
3	Extension	114	15.30	118	15.84
4	Control	197	26.44	87	11.68
5	Dependence	145	19.46	178	23.89
6	Affiliation	60	08.05	107	14.36
	<b>Total</b>	<b>745</b>	<b>100.00</b>	<b>745</b>	<b>100.00</b>

## 10. ICTs for sharing of agriculture information in rural India

## Objectives:

- To assess the farmers information needs relevant to internet and build a system using ICT in agriculture technology dissemination for problem solving;
- To empowering farmers and farm women in the use of ICT; and
- To develop policy strategy for scaling ups the use of ICT for improvement in the quality of life in rural areas across the country.

## Achievements:

- The placement of the project staff in the project site enabled the information service available in the village from the project at convenient times to the farmers apart from office timings and rapid rapport building.
- After setting up of the project, farmers regularly visited the center to make queries through telephone to the ATICs (of ANGRAU) and Rythu mitra (of Teja TV) and Annadata (of ETV) for solving their doubts regarding the farming, pests and diseases and also about the suitable varieties. On an average 260 calls were placed during 6 months period in crop season.
- Around a hundred farm youth, farmers and farmwomen became computer literates learning the computer basics, using the multimedia accessories of the computers and making presentations.
- Farmers became aware of market prices, weather details and read vernacular newspapers (Telugu) through internet browsing and email and interacted with agri-experts for problem solving in agriculture.
- The other advantages included the networking with the agricultural scientists and development department officials and NGO staff and procurement of good quality seed and technical advice directly from the agri-experts of ICAR institutes and ANGRAU as collaborating organizations of the project.
- The project team facilitated in providing information on acquiring and distribution of quality seed from the concerned organizations such as Jyothi Castor (150 kg) from DOR, CSV15 & CSH16 (200 kg), Sweet sorghum (6 kg for demo) from NRCS, Santhi paddy (10 kg for demo) from DRR, LRG 41 redgram and Lam1 ajwain (for demo) from Lam farm, ANGRAU, ArkaVikas Tomato from ARI, ANGRAU and Bheema safflower from NSC. Before the initiation of the project these farmers used to blindly rely on the other farmers or private traders.
- In addition to the project activities, the project staff also facilitated in providing the results of 7<sup>th</sup> class, 10<sup>th</sup> class, Inter and Degree along with mark sheets to the children of the farmers and farm women in Gujja village through internet.
- Helped in organizing the Health camp for farmwomen.
- Facilitated in maintaining digitized accounts of the 'Sangabandhams' or women self-help groups in the computers at the Ag Info Gateway information kiosk, and
- Prepared Payroll register in vernacular language for the local school.

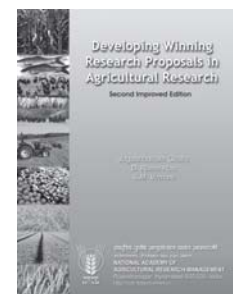
### 11. Developing winning research proposals in agricultural research – A case study

## Objectives:

- To build on the past experiences of scientists for developing a research proposal;
- To show how research proposals can be written that win funds from donors focusing on the needs of the farming community;
- To provide general writing tips and writing for information and persuasion;
- To give guidelines in preparation of concept note, log frame and PERT;
- To provide inputs in preparing a budget; and
- To develop awareness on language skills required for writing and editing

## Achievements:

The first edition of the book was completed in October 2005 and it was officially released on October 24, 2005, by the Chairman, ASRB, New Delhi, at NAARM in a simple function. One training programme on the topic was conducted during October 21 – 26, 2005 wherein 19 participants, scientists of junior and middle level, attended the programme. Feedback on the book and the training programme was obtained from the participants. More training programmes are planned during the current year. The book is priced at Rs 200/- per copy. Drs Jagannadham Challa, D. Rama Rao and S.M. Virmani author the book.



## 12. Assessment of qualitative rating of colleges in the state agricultural universities (AP CESS)

### Objectives:

- To develop an appropriate methodology for qualitative rating of colleges and disciplines; and
- To assess rating of colleges in SAUs in terms of inputs, output, commercial and social acceptance of its graduates, and competitiveness and career development of graduates and post graduates globally.

### Achievements:

A comprehensive document was prepared on the theme of qualitative rating/ranking of colleges for circulation to experts in the field and to be presented in the National Brainstorming Workshop scheduled for January 2005. The workshop brochure was prepared and is being sent to all the Vice Chancellors, Deans/Associate Deans and policy level functionaries at ICAR, UGC, AICTE and other agencies inviting their participation in the National Workshop.

## 13. Identifying strategic issues and prospective approaches in higher agricultural education system in india to face challenges of GATS (AP CESS)

### Objectives:

- To analyze GATS obligation and mechanisms with respect to higher agricultural education system, and develop recommendation domain;
- To find out potential risks and opportunities in trade in educational services with respect to preparedness, commitments in service delivery and receiving service (modus operandi and country of interest) and capacity building in agricultural education system; and
- To identify the competitive advantages of Indian higher agricultural education system to take maximum advantage.

### Achievements:

Brainstorming workshops on the topic of General Agreement on Trade in Services (GATS) and Agricultural Higher Education in India were conducted at eight universities where 290 faculty members participated. These universities are ANGRAU, Hyderabad, Veterinary university, Mathura, CSK-HPKV, Palampur, NDRI, Karnal, CIFE, Mumbai, KVAFSU, Bidar, OUAT, Bhubneswar and KAU, Thirussur. The salient features of brainstorming output are,

- From service delivery point of view Mode-2 i.e. consumption abroad must be the top priority, which can provide significant dividends in favour of India.
- The five top agricultural subjects where arrival of foreign students is most expected in order of priority are- biotechnology (agricultural science), biotechnology (animal science), Veterinary medicine, veterinary microbiology and animal genetics and breeding. Few subjects like bio-informatics, agricultural biodiversity, organic farming, aromatic and medicinal plants and IPR issues in agriculture can be new thrust areas.
- For the inflow of international students in India, the top expected student senders may be developing nations of Asia.
- Effective marketing strategy must be the top strategic priority to attract International students in agricultural universities in India.
- Development of strategic linkages & collaborations with foreign universities must be the top priority to establish commercial presence of Indian agricultural universities abroad.
- Proper administrative & regulatory mechanisms are the topmost preparedness requirements to face entry of foreign universities.
- To establish India as an exporter of agricultural education service- the biggest strengths is available diversity in India, the largest weakness lies in the human resources sector, the topmost opportunity, which is available is development of linkages & collaborations, while the biggest threat is weaknesses prevalent as system weaknesses.

#### 14. Leadership styles and effectiveness in ICAR institutes

Objectives:

- To identify leadership styles of research leaders of ICAR;
- To measure the leadership effectiveness of these leaders; and
- To collect information through self-assessment on basic leadership qualities of research leaders.

Achievements:

Data collection questionnaires have been delivered and collected from IARI, IVRI, NDRI, CSSRI, CPRI, CMFRI, CIFT, CRIDA, DOR, and TANUVAS. Data collection questionnaires were sent through mail to other ICAR institutes and few SAUs to enlarge the scope of the study. About 500 survey questionnaires have been posted to all ICAR institutes and few SAUs. The incoming questionnaires are being decoded for analysis. Data collection has been completed from the respondents from whom it was due. Database of 380 responses received has been made for further analysis.

#### 15. Agriculture gateway to India

Objective:

- To develop web based information on agriculture in India in particular and general agriculture relevant research, education and extension.

Achievements:

Agricultural Gateway to India is developed as a window on NAARM web site providing information on Indian agriculture. Information for different categories pages were linked in the AGI pages like Regional Agriculture Research Stations, Institutes, Agricultural Technology Information Centres, and such that would be useful for the extension functionaries, farmers and others. Information of Women Agriculture Professionals in India was collected and compiled as a directory and hosted in the AGI site, which would be helpful for networking of the women professionals and organizations involved in agriculture research, education and transfer of technology.

#### 16. Strategic initiatives on bio-technological interventions for augmenting minor oilseed production in Andhra Pradesh

Objectives:

- To document farmers' practices of Karanja, Jatropha, and Simarouba cultivation and post harvest technology in vogue and assess their scope and limitations in different agro-climatic, and cultural practices (such as avenue plantation, farm forestry, commercial plantation, etc.);
- To access income, profitability and employment generation potential of these crops under various practices and growing conditions; and
- Development of policy strategy for bio-technological interventions for scaling-up the cultivation of these oilseeds.

Achievements:

Synthesis of the findings of the project is in progress. Some of the preliminary findings are as follows:

- Low and uncertain yields is the main bottleneck in popularizing Pongamia and Jatropha among farmers. Identification of plus trees in natural habitat, collection of planting material, and supply of elite planting material to growers can overcome this. For this mass multiplication of Jatropha and Karanja should be taken up involving biotechnological tools.
- There are no good and successful Jatropha plantations for farmer fields to see. Organizing demonstrations at focus points will pave the way for early adoption by the farmers as they can see, learn and adopt the technology.

- Farmers are not convinced about the economics of Jatropha cultivation and are hesitant due to lack of the forward linkages such as assured marketing or guarantee on buy back. A proposal may be made to guarantee MSP.
- Long gestation period of Pongamia is a problem to small and marginal farmers who do not possess such a long waiting capacity for the returns to come.
- Private / business operators are making wild claims on their potential and practices. This will have serious impact on the long term outlook in its promotion as such practices are leading to disillusionment by many farmers.

### 17. Development of online technological forecasting

Objectives:

- To develop online effective technological forecasting technique using Delphi method with a provision;
- To maintain anonymity;
- Provide controlled feedback; and
- Fine tune forecasting using iterative method online.

Achievements:

An online Delphi process is developed which is user friendly and visually appealing. Some of the advantages of this software are:

- Entire steps of Delphi can be completed in a single sitting thereby avoiding the delay in reaching consensus, cutting down the logistical costs like travel, paper and mailing work etc.,
  - There can be number of rounds as observed in traditional Delphi to arrive at consensus more effectively.
- This software can be useful
- To develop policies for future research strategies
  - To forecast demand for production and/or inventory control
  - To forecast demand to assure adequate staffing
  - To develop road maps for long term targets
  - To reduce the expenditure and time in arriving at the fixing of milestones for an organization for future

### 18. Strategies for enhancing agricultural engineering research output in ICAR

Objectives:

- To review engineering manpower utilization in the ICAR;
- To undertake content and trend analysis of engineering research projects with relation to the institute mandate;
- To identify research priorities in Engineering;
- To create database directory of Engineers in ICAR; and
- To identify and focus the roles of Engineers in sustainable agricultural development under WTO and IPR regime.

Achievement:

A survey questionnaire was developed to elicit information from the engineering scientists working in the ICAR system.

### 19. Impact assessment of fisheries research in India

Objectives:

- To analyze investments in capture and culture fisheries research in India;
- To evaluate return to investment of research in capture and culture fisheries; and

- To assess the socio-economic and environmental impacts of fisheries technologies in different systems.

Achievements:

- Communication to all the collaborating centres regarding project implementation schedule.
- Research staff recruitment at NAARM and other collaborating centres.
- Literature survey.
- Development of methodological framework.
- Background paper on status of fisheries research in India.

## 20. Training needs assessment of technical staff in ICAR

Objectives:

- To identify training needs of technical personnel for creating an enabling environment of learning system to achieve organizational excellence; and
- To evolve a base document for training policy of personnel identified above.

Achievements:

The study recommended:

- HRD cell at all institutes to provide support in evolving training norms for all categories of staff is advocated
- Foundation Training for the new recruits in category III to be given centrally.
- Orientation Training for the new recruits in categories I and II to be given at respective institutes.
- The training programmes may be organized outside work place. To be sensitive to the problems of women employees, efforts to conduct trainings in same city can be made keeping their dual responsibilities.
- Publicity about training programmes and transparency in selection process
- Annual Reports of all institutes should include a brief report of HRD activities with specific head on training activities
- Procurement-linked training is desirable if training component is added in all equipment purchases and this be made mandatory if single item cost exceed Rs. 1 lakh

Several operational issues needed policy initiative for effective implementation of the training strategy. They pertain to training costs, logistics, skills in administrative functions and orientation to HRD cell functionaries. Broad training areas identified are competency development in technical areas with inputs on ethics, morals and values, yoga and meditation and language training. Organizational Support recommended for the constitution of HRD Cells in institutes, foundation and orientation courses, organization of training in institutes, grant of special courses in the pattern of summer schools, procurement-linked training, academic training and support for training costs.

## 21. Role efficacy and motivation levels of ICAR scientists

Objectives:

- To empirically map the role perception of ICAR scientists and suggest ways; and
- To enhance correct role perception by suitable interventions.

Acheivement:

Based on exhaustive literature review, data collection instrument along with study variables were finalized and methodological framework was worked out. It was decided to use mailed questionnaire survey method to collect data. Arranged to finalize, print, multiply and mail nearly 500 questionnaires to scientists working in ICAR institutes. Data received so far from 300 scientist respondents was coded and entered for computerized analysis.

## 22. Assessment of 'Transfer of Learning' of NAARM training to NARS

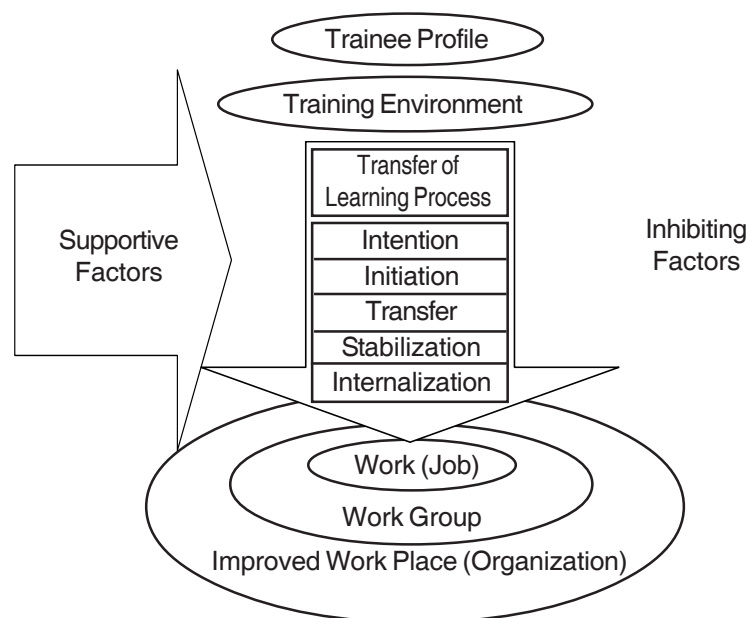
Objectives:

- To assess 'transfer of learning' of NAARM training to work situation and organization
- To discern the factors that 'enable' and 'hinder' transfer of learning to work situation and organization, and
- To suggest appropriate measures to improve transfer of learning and thereby impact of training.
- To improve overall effectiveness of NAARM training programmes by augmenting the transfer of learning to actual work situations in NARS.

Acheivements:

Based on extensive literature review, a conceptual model and methodological framework have been developed. In the present study, Transfer of Learning has been operationalized as the process whereby the trainees of NAARM training programme make conscious efforts to continuously and effectively put in to practice the knowledge, skills and attitudes gained during training to their work, work group, and workplace.

Based on investigations and drawing cues from the model suggested by Foxon (1994), a conceptual model has been developed for the study. The model conceptualizes 'transfer of learning (ToL)' as a process (ranging from initiation to unconscious maintenance) with five distinct stages rather than as an outcome or product of training. The conceptual model also accounts for the process of transfer in terms of supporting and inhibiting factors. This model is diagrammatically represented in figure 1.



The process approach reflects what actually happens as learners try out some of the skills, practice them, discontinue their use, or fail to use the skills. The process approach also enables us to measure transfer at various points on the transfer time continuum, and the degree of transfer at those points. There is an acceptable degree of transfer, and an optimal degree.

## Consultancy, Policy Support, and Collaborations

### Consultancy, Policy Support and Collaborations

#### Monitoring and Evaluation Guidelines of NAIP

At the behest of National Director, NAIP, detailed guidelines for maintaining and evaluation of various components under the World Bank supported National Agricultural Innovation Project (NAIP) have been developed for effecting implementation. The guidelines covered details on relevant output and outcome indicators and their measurement.

#### BD Act 2002 *vis-à-vis* allocated business of ICAR/DARE

At the behest of the Council, the Academy through a series of policy dialogues, developed guidelines for material transfer in inter-institutional collaborative projects under the overall framework of BD Act 2002.

#### Germplasm Exchange Guidelines for Collaborative Research Projects

As a part of the NAARM project on “Provisions of the Biological Diversity Act, 2002, *vis-a vis* allocated business of ICAR/DARE”, an interactive discussion meeting was held at NAARM, under the chairmanship of Dr S. Kannaiyan, Chairman, NBA, with experts and Directors of ICAR institutes for formulating a feasible system (revised guidelines) of germplasm exchange for research within the provisions of the National Laws. The guidelines were sent ICAR/DARE and National Biodiversity Authority (NBA) for adoption.

#### Protection of Intellectual Property and Commercialization of Agricultural Technologies

With the cooperation and excellent contributions of core faculty members of ARSMP Division, broad outline for the protection of various forms of intellectual property (IP) in the ICAR system at the level of individual scientists, institutes and headquarters was prepared. More specifically, the sections on Trademarks and Trade Secrets were developed. This served as a background material for the Special Task Force constituted by ICAR for developing detailed guidelines for IP protection.

#### Peri-urban Agriculture

At the request of the Director of South Asia Regional Centre of IWMI located in ICRISAT, Dr T. Balaguru, Head, ARSMP Division, undertook a twenty-day consultancy service during October-November 2005 in the following areas:

- Urban and Peri-urban Agriculture (UPA): Policy analysis and documentation.
- Multi-stakeholder Policy Design and Action Planning (MPAP) Workshop on UPA: Participation and discussion on policy issues.
- Training Session on ‘Policy Analysis, Formulation and Institutionalization of Urban and Peri-urban Agriculture’: Presentation and discussion on strategies for promoting UPA in the City of Hyderabad.

#### Training Policy

Dr M.M. Anwer, Principal Scientist, and Dr R.V.S. Rao, Senior Scientist, prepared Training Policy Document proposal for the Indian Council of Agricultural Research. The document covers five issues viz. activation of training, expenditure utilization of training, duration of training, nature of training and frequency of training.

### **Training Consultancy**

Dr M.N. Reddy, Principal Scientist, provided consultancy to the Scientists of National Research Centre for Oil Palm on Statistical Analysis of Oil Palm experimental data, on January 20 and 21, 2006 at Pedavegi, West Godavari district, A.P.

### **Consultancies on Intellectual Property Management**

Dr N.H. Rao, Principal Scientist, as a Member, Drafting Committee of ICAR Committee on guidelines on intellectual property management and technology transfer, provided key inputs for the development of ICAR guidelines on intellectual property management and technology transfer.

Strategies for bio-diesel Promotion: At the request of the Director of NRCS, Dr T. Balaguru, Head, ARSMP Division, undertook a training consultancy in March 2006, and handled a session on 'Patent Cooperation Treaty (PCT)' in the Training Workshop on 'Biodiversity, PVP and IPR Protection in India'.

### **Contract Services on Video**

Organised and provided video shooting and editing on contract services to MANAGE for two batches of training course on Agriculture Media Skills for LPT/Regional Kendra Functionaries of Doordarshan (About Rs 60,000 were generated for the Academy).

### **Collaboration with Asian Agri-History Foundation**

The Academy in collaboration with Asian Agri-History Foundation, Secunderabad organized the second workshop to orient the faculty members of State Agricultural Universities to the agricultural heritage of India, in order to facilitate them initiate a course on this important area in their respective universities.

## Other Events

### Research Advisory Committee Meeting



The 6<sup>th</sup> and 7<sup>th</sup> meetings of the Research Advisory Committee (RAC) were held on May 21, 2005, and February 18, 2006 respectively, under the Chairmanship of Dr Y.L. Nene, Former Deputy Director General, ICRISAT, Hyderabad.

The 6<sup>th</sup> RAC meeting was specifically organized to discuss the Vision document of the Academy. Earlier to the RAC meeting, Dr J.C. Katyal, D.D.G. (Education), and Dr H.S. Nainawatee, A.D.G. (HRD II) offered suggestions on the Vision document. Based on the suggestions made by the DDG and ADG, the Vision document was revised for presentation in the RAC meeting.

Chairman and members of RAC appreciated the vision document and complemented the Director, NAARM, for the efforts put in. Based on the suggestions made by the RAC, the Vision document was further revised and sent to the Council for approval.

The 7<sup>th</sup> RAC meeting suggested inviting some progressive farmers who have received recognition or awards to share their experiences in the Academy from time to time. The annual training calendar, research projects, consultations etc. of the Academy were reviewed and agreed to.

### Management Committee Meeting



The 39<sup>th</sup> and 40<sup>th</sup> Management Committee meetings of NAARM were held on August 10, 2005, and February 17, 2006 respectively under the chairmanship of Dr S. Prakash Tiwari, Director, NAARM. The committee deliberated on various issues, which included budget allocation, expenditure, and manpower position at the Academy.

### NAARM Foundation Day Celebrations

The Academy celebrated its 30<sup>th</sup> Foundation day on September 1, 2005. To mark the occasion, a special lecture on "Ethics and Governance" delivered by Mr J.M. Lyngdoh, Former Chief Election Commissioner of India. Speaking on the occasion, Mr Lyngdoh emphasized that governance and ethics should go hand in hand. He exhorted that while following the principles of governance we should maintain distance from those elements that are likely to come in the way of ethics. No matter how powerful the ideology of an advanced nation, our country should not play a subservient role to it, he emphasized. We should have our own progress, keeping intact our pride, he added.



Mr Lyngdoh pointed out that one could serve the society and country in different ways. Without aiming to achieve fame or personal gains. The desire or the involvement in selfish aims, even in the slightest way in one's heart, will inevitably tarnish the image and render

them irrelevant to the public, he said. He complemented the role of the agriculture sector in building sound Indian economy. He emphasized the need of ethics and moral values in the work culture. He indicated that a flawless and unselfish mind is an invaluable asset to anyone engaged in public service. He urged the audience to rise above their self-interest and work for the prosperity of the nation. "Work and only work can make India shine", he added.

### **Interactive Discussion Meeting on "Guidelines for transfer/exchange of biological resources or information under collaborative research projects"**

As a part of the NAARM project on "Provisions of the Biological Diversity Act, 2002, vis-a vis allocated business of ICAR/DARE", an interactive discussion meeting was held at NAARM, on September 29, 2005, for discussing the draft guidelines for transfer/exchange of biological resources or information under collaborative research projects.



A presentation on the draft guidelines for transfer/exchange of biological resources and information, under collaborative research projects involving foreign individuals/agencies, prepared by the NAARM project team, was put forth for discussion. Participants made several important suggestions, which were discussed in detail. The suggestions were incorporated and revised guidelines were sent to ICAR for further action, and National Biodiversity Authority (NBA) for implementation with regard to access to genetic resources for food and agriculture.

### **Financial Review Meeting of F&AOs of ICAR Institutes**

The financial management of the country is undergoing a process of review and renewal. The General Financial Rules 2005, effective from July 1, 2005, is a step in this direction, which brings the flexibility in tune with changes in national and global scenario. In this connection, Indian Council of Agricultural Research has organized a two-day Financial Review Meeting of Finance and Accounts Officers of ICAR institutes, at the Academy from September 8 to 9, 2005 with a view to orient the Finance and Accounts Officers to the new General Financial Rules. The meeting was organized to review the budget utilization, revenue generation, implementation of accounting software package, and implementation of new General Financial Rules.



Inaugurating the meeting, Dr Rita Sharma, Additional Secretary and Financial Advisor, Department of Agricultural Research and Education (DARE), and Indian Council of Agricultural Research (ICAR), New Delhi, said that we should aim to improve and sustain agricultural productivity to respond to the new challenges by increasing the production per unit of land together with per unit of water and energy. There is a need to improve the efficiency and effectiveness in the utilization of public funds in agricultural research and development, she emphasized. She stressed the need to look at farming systems as a whole in view of the basic challenge to improve the purchasing power of the people to support them in their livelihood strategies. Earlier, Dr S. Prakash Tiwari, Director, NAARM, welcomed Dr Rita Sharma, and said that Finance and Accounts Officers play a vital role in shaping the future of agriculture in India. He expressed the trust that under the dynamic leadership of Dr Sharma, ICAR is well poised to further institutionalize financial reforms.

### Working Group Meeting of NAIP

The Academy hosted the second meeting of the Working Group entrusted with the onerous task of developing operational guidelines for Component 2 (sustainable value chain consortia) and Component 3 (sustainable livelihood security consortia) under the World Bank- supported National Agricultural Innovation Project (NAIP) during 5 - 6 August 2005. The concept of NAIP and its implementation in a partnership mode were deliberated, under the Chairmanship of Dr K.V. Raman, Former Member (ASRB), with the active participation of representatives from public sector institutions (ICAR and SAUs), private sector, and NGOs. Valuable suggestions for operationalization of NAIP were emerged from the interactions.

The Working Group members discussed the draft guidelines with regard to the following major areas:



- Identification of disadvantaged regions
- Public-private consortia development
- Gender-related issues and innovations in agriculture
- Monitoring and evaluation
- Development of MOU - Legal implications
- Procurement of goods and services
- Financial administration

Draft guidelines developed in these component areas were presented, critically examined and improvised by the Working Group. The draft guidelines for monitoring and evaluation, as prepared by NAARM, were largely accepted.

### Brainstorming Session on Guidelines for Transfer/Exchange of Biological Resources



Brainstorming session on guidelines for transfer / exchange of biological resources or information under collaborative research projects involving foreign individuals / agencies was organized on November 7, 2005 under the Chairmanship of Dr S. Kannaiyan, Chairman, National Biological Authority (NBA), for formulating a feasible system of transfer exchange of biological resources for research within the provisions of the National Laws. The revised guidelines were sent to ICAR/DARE and NBA for further processing and implementation.

### National Brainstorming Workshop on Assessment of Qualitative Rating of Colleges in State Agricultural Universities



A National Brainstorming Workshop on Assessment of Qualitative Rating of Colleges in State Agricultural Universities was organized during January 20 - 21, 2006. Prof. V. Prasad, Director, National Assessment and Accreditation Council (NAAC), Bangalore, while inaugurating the workshop pointed out that the four objectives for quality assurance of education are to improve the institution, to help students/parents in the choice of courses/programmes, to help regulatory mechanisms to play effective role and to provide possible recognition for transactional education. He urged the delegates to define the quality of agricultural education and emphasized the need for nationally developed qualitative and quantitative criteria that would help improve the educational standards.

The following three key questions were placed for brainstorming. 1. What will be the difference in relative qualitative rating of colleges in SAUs and colleges of general science education? 2. What could be the benchmark indicators/parameters for quality assessment of agricultural education in India? 3. What shall be the various tools and methods for generation of relevant data for rating of colleges?

Modified Delphi technique was followed to arrive at the weightages for benchmark indicators. The project team would prepare the questionnaire and methodology in consultation with peer group from NARS and fine-tune it in consultation with Center for Forecasting and Research (C-fore), New Delhi; NAAC, and ICAR.

### **National Brainstorming Workshop on Augmenting Bio-fuel Crop Production in Andhra Pradesh**

A National Brainstorming Workshop on Augmenting Bio-fuel Crop Production in Andhra Pradesh was organized on January 23, 2006 under the chairmanship of Dr M.V. Rao, Chairman, Bio-technology Unit, IPE, and Former Vice Chancellor of ANGRAU, Hyderabad. The programme encompassed the objectives viz., documentation of farmers' practices, income, profitability and employment generation potential, and development of policy strategy for augmenting bio-fuel crops production in Andhra Pradesh.

The bio-fuel crop production in the state is confronted with a number of issues pertaining to level of production, information gap, extension effort, market interventions, processing facilities and policy support. The suggested strategies for improvement are creation of single window facility, providing incentives for biotechnology applications, developing human resource through crop specific training, addressing research to productivity, oil extraction, engine efficiency and byproduct utilization issues, effective risk management, building awareness among stakeholders, providing vocational education, promoting local entrepreneurs for processing, involving engine manufacturers in promotion of bio-diesel, promoting bio-diesel marketing, ensuring quality control of blended fuel, providing minimum support price, encouraging contract farming, ensuring sustainability of cropping system and undertaking regular environmental, economic, energy and social audit of the programme.

### **Hindi Fortnight Celebrations**



Hindi Fortnight Celebrations were organized at the Academy. To mark the celebrations, various competitions were held which included noting, drafting, elocution, essay writing, dictation, translation, words making, just a minute, general knowledge, memory, and singing. Various categories of employees of the Academy participated in these competitions with enthusiasm and interest.

Delivering the valedictory address on the last day of the celebrations, Dr Noorjahan Begum, Head, Department of Hindi, University of Hyderabad, emphasized the need for the revolutionary steps to be taken to facilitate appropriate and effective implementation of official language policy of Government of India. She exhorted the employees to overcome the mental blocks that come in the way of effective use of Hindi.

### **National Science Day Celebrations**

Agriculture is of immense importance as a means of livelihood, as a source of food security, and as the prime focus for any programme of rural development and poverty alleviation. Globalization is a challenge for agricultural sector. Public relations in the scientific organizations has gained significant

importance in the wake of globalization, said Dr C.V. Narasimha Reddi, Former Director, Information and Public Relations Department, Government of Andhra Pradesh, while addressing the faculty and staff on the occasion of National Science Day Celebrations, organized at the Academy on February 28, 2006.

Dr Reddi pointed out that growth of information technology, media explosion and consequent forming of a global village on one hand and the competitive market environment, trade wars on other hand resulted in the upswing of public relations, not only in India but also all over the world. Change management for competitive advantage has now become the order of the day. Public relations and communication as the twins of human understanding play a major role in building up better relations between organization and their public for better performance and higher productivity. Generally, the importance of public relations is felt when there is crisis. Public Relations person produces, directs, channelises and communicates things in right direction. Convergence of ITM theory – Inter-personal communication, Traditional folk arts, Mass media and modern IT new media is best suited to the Indian conditions. Such media strategy alone can bridge the gap between the information rich and information poor, besides covering both urban and rural areas.

### International Women's Day Celebrations

The Women Cell of the Academy observed the International Women's Day on March 8, 2006. The women employees were addressed by the Director, NAARM, and urged them to bring out their latent potentialities and strengths in order to make a better work place and home. The women employees utilized this special occasion to extend alms to the poor in old age home at Aramghar in Shivarampalli and distributed fruits and needed items. The women cell also arranged community lunch on this day. They later visited DHAN (Development of Humane Action) Foundation, Habsiguda, which is involved in entrepreneurial development and capacity building for women.

### Participation in Indian Science Congress Exhibition

The Academy participated in the exhibition **Pride of India – Science Expo** organized on the occasion of 93<sup>rd</sup> Indian Science Congress at Acharya NG Ranga Agricultural University (ANGARU), Hyderabad, from January 3-7, 2006 and displayed various materials like posters, photographs and publications, touch screen installation, highlighting the achievements of the academy, for the benefit of the visitors. Hon'ble Prime Minister of India inaugurated the Indian Science Congress, 2006. Several VIPs like Dr M.S. Swaminathan, Dr Mangala Rai, Director General, ICAR, visited the stall.

### The ICAR Inter-institutional Tournament (Southern Zone)



The ICAR Inter-institutional Tournament (Southern Zone) was hosted by the Academy from January 9 to 13, 2006 at Railway Recreation Club Grounds, Secunderabad, in which 570 sports persons from 22 ICAR institutes participated. Shri Ravikanth Reddy, Arjuna Awardee, inaugurated the tournament.

CPCRI, Kasargod was adjudged as the overall team champion of the tournament. Shri M. Gopala Krishna, IAS (Retd.), Chairman, AP State Financial Corporation, Hyderabad, was the Chief Guest at the closing ceremony and gave away the prizes to the winners, which included Mr M.K. Samson, NAARM, Hyderabad, was adjudged as Man of the Tournament and Ms K.K. Rukmini Ammal, NAARM, Hyderabad, as Women of the Tournament.

## Awards and Recognitions

### Awards

Dr T. Balaguru, Head, ARSMP Division was awarded 'The World Medal of Freedom' for significant accomplishments in the field of 'Agricultural Research Management' by the American Biographical Institute, USA (March 2006).

In recognition of contributions made in the area of Agricultural Research Management, 'Asia / Pacific Who's Who (Vol.VI)' quoted Dr T. Balaguru, Head, ARSMP Division, published by Rifacimento International, New Delhi (2005).

Dr Jagannadham Challa, Principal Scientist, was awarded Fellow of the National Academy of Veterinary Sciences (FNAVS) in 2006 for rendering conspicuous service in teaching, research and extension, and having made significant contribution as a Veterinarian in the last 20 years.

### Membership of National Committees

Dr N. H. Rao, Principal Scientist, was nominated as a Member, Academic Council, to serve on the Academic Council of Kerala Agricultural University.

Dr S.P. Tiwari, Director, was nominated as member, Advisory Committee on Agro-biodiversity (NBA) w.e.f. October 19, 2005.

Dr S.P. Tiwari, Director, was nominated as Chairman, Committee to evaluate Access, Patents, Transfer of Research Results and Material Transfer Applications (NBA, Chennai), w.e.f. October 20, 2005.

Dr S.P. Tiwari, Director, was nominated as Chairman, Expert Committee on Normally Traded Commodities (NBA, Chennai), w.e.f. November 14, 2005.

Dr S.P. Tiwari, Director, (representative of ICAR) was nominated as a Member, Board of Management of ANGRAU, Hyderabad, for three years w.e.f. October 28, 2005.

Dr S.P. Tiwari, Director, was nominated as member, Committee to develop guidelines for IP Management and Commercialization of technologies in ICAR System w.e.f. November 22, 2005.

### Rose Show Awards



The Academy bagged the Prince of the Show award in the XIX Annual Rose Show organized by the Secunderabad Horticultural Society, on December 10 and 11, 2005. The Academy bagged prizes for best collection of Floribunda roses, and second highest aggregate points in the rose show, apart from winning two first prizes, four second prizes and three third prizes under different sections of flower display. The Academy also bagged two first prizes, six second prizes and three

third prizes in the XXX Annual Rose Show organized by the Hyderabad Rose Society on December 10 and 11, 2005.

### **Sports Awards**

Ms K.K. Rukmini Ammal and Mr M.K. Samson have brought laurels to the Academy by winning various events in the ICAR inter-zonal sports meet held at NDRI, Karnal, from September 27 to 30, 2005.

The NAARM sports contingent, led by Dr A. Debnath, participated in the ICAR (Zone-III) inter-institutional tournaments, held at Railway Recreation Club grounds, Secunderabad, from January 9 to 13, 2006. Ms Rukmini Ammal won first prize each in shotput, discus, carroms, shuttle (singles & doubles), second prize in Table Tennis (doubles), and third place in javelin throw. Ms G. Aneja bagged six prizes. First prize in Javelin throw and shuttle (doubles), Second prize in shotput, discus and Table Tennis (doubles), and third prize in 100 mts. run. Ms Savithri secured second place in High Jump. In the men's events, Mr M.K. Samson bagged first prize each in shotput, discus, javelin, and carroms. Mr Sham Bahadur won second prize in carroms and Table Tennis (team event consist of Mr S. Swamy, Mr G. Raj Reddy, Mr N.R. Nageswara Rao, and Mr P.B. Yaddiah. Dr A. Debnath won third prize in javelin throw.

Publications

**Publications**

Publications

## Publications

### Books

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**Tiwari, S.P.** (2006). Regulatory and operational mechanisms related to agro-biodiversity, NAARM (ICAR) Publication, pp. 1-49.

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**Kalpana Sastry, R .** (2005). Patenting of Basmati Rice – Status and implications for IPR regime in India. Working Paper–1. NAARM Publication.

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- Samanta, R. K.** (2006). Management of agricultural extension in Post WTO Era – Need for its strategic reorientation and redesigning (sent for publication in Agricultural Extension Review).
- Samanta, R. K., and Sontakki, B.S.** (2005). Emerging issues in management of agricultural research in the changing global perspectives. In: Ramasamy C. Ramanathan, S. and Dhakshinamoorthy, M. (2005) Perspectives of Agricultural Research and Development. A compilation of articles for centenary seminar on recent advances in agricultural research held at Tamil Nadu Agricultural University, Coimbatore.
- Samanta, R. K., Rao, K.V.S., Sandhya Shenoy, N., and Kumar, K.V.** (2005). Impact of NAARM training in agricultural research project management of ICAR scientists and their training needs – Part III. Hyderabad, NAARM.

- Soam, S.K.** (2005). Analysis of prospective geographical indications of India, *Journal of World Intellectual Property*. Vol. 8 No.5: 679-705.
- Soam, S.K.** and **Kalpna Sastry, R.** (2005). A Review of GATS and implications for agricultural higher education in India. *JNKVV Research Journal*, Vol. 39 No.2: 1-11.
- Sontakki, B. S., Samanta, R. K., Sandhya Shenoy, N., and Vijender Reddy, P.** (2005). Management training needs of agricultural scientists of Indian Council of Agricultural Research. Communicated to *Indian Journal of Training and Development*.
- Sudhakar Reddy .Y, and **Reddy, G. P.** (2005). Economic analysis of sunflower production under rainfed conditions in Kurnool District of Andhra Pradesh environment and ecology 23S(spl): 561-569.
- Sudhakar Reddy, Y.S, and **Reddy, G. P.,** (2005). Economic analysis of sunflower versus groundnut production under rainfed conditions in Kurnool District of Andhra Pradesh, *International Journal of Tropical Agriculture*, vol.23 .Nos 1-4:269-282.
- Talukdar, P. K., and **Sontakki, B.S.** (2005). Correlates of adoption of composite fish culture practices by fish farmers of Assam, India. *Journal of Agricultural Sciences (ISSN 1391-9318)* 1(1): 13-19.

### Research Paper Reviews

- Balaguru, T.** (2005). Review of article on 'Direct, residual and cumulative effects of applied zinc in rice-sunflower system' for publication in *Journal of Oilseeds Research* by DOR, Hyderabad.
- Balaguru, T.** (2005). Review of article on 'Malaysian agricultural sector: Sources of growth' for publication in *Journal of Rural Development* by NIRD, Hyderabad.
- Balaguru, T.** (2005). Review of article on 'Involving resource poor farmers in identification of researchable agricultural problems – A Study in Karnal District of Haryana' for publication in *MANAGE Extension Research Review* by MANAGE, Hyderabad.

### Technical Bulletins /Training manuals

- Murthy, G.R.K., and Reddy K. M.** (2005). Training manual entitled "Networking essentials for information management in agriculture".
- Rama Rao,D., and Reddy, K. M.** (2006). Training manual entitled "Computer and internet based learning".
- Rao, N. H., Reddy, M.M., Kumar, K.V., Arunachalam, M., and Nagaraj, A.** (2005). GRAM ++ : Geodatabase design and implementation.
- Reddy, G. P.** (2005). Perspective plan of national food for work programme, Adilabad District, AP, pp 645.
- Reddy, G. P.** (2005). Perspective plan of national food for work programme, Ananthapur District, AP, pp 570.

**Reddy, K.M., and Rao, V. K. J.** (2006). Training manual entitled “Computer based multimedia presentation”.

**Reddy, M.N., Rao, N. H., Kumar, K.V., Arunachalam, M., and Nagaraj, A.** (2005). Land use / Land cover classification from satellite remote sensing digital data.

**Rao, V.K.J., and Sandhya Shenoy N.** (2005). Training manual on participatory rural appraisal and action learning for research and extension in agriculture. NAARM, Hyderabad.

**Soam, S. K., Balaguru, T., Rao, N.H., Kalpana Sastry, R., and Nanda, S.K.** (2005). Training manual entitled “Implications of WTO agreements on indian agriculture”.

### Reports

**Jagannadham Challa, Rama Rao, D., and Nanda, S.K.** (2005). Proceedings of the workshop on assessment of qualitative rating of colleges in SAUs, NAARM, Hyderabad.

**Kalpana Sastry, R., Soam S.K., and Rama Rao, D.** (2005). Training needs assessment of ICAR technical cadre employees. Project Report, NAARM, Hyderabad.

**Nanda, S. K., Rama Rao, D., and Kalpana Sastry, R.** (2006). Strategic initiatives on bio-technological interventions for augmenting minor oilseed production in Andhra Pradesh (APNL Sponsored), NAARM, Hyderabad.

**Rama Rao, D. Sandhya Shenoy N. and Rasheed Sulaiman.** (2005). Strategies to encourage rural female students in the agricultural education. NAARM, Hyderabad.

**Samanta R.K., Vidyasagar Rao, K., Sandhya Shenoy, N. and Kumar, K.V.** (2005). Impact of NAARM training in agriculture research project management of ICAR scientists and their training needs – Part III. NAARM, Hyderabad.

### Resource Papers (developed and used as input in training)

CorelDraw (V.K.J. Rao and K.M. Reddy)

Envisioning and forecasting in agriculture (D. Rama Rao)

Evaluation of Web site (G.R.K. Murthy and K.M. Reddy)

Institutionalization of IP policies in public systems of NARS (N.H. Rao)

IPR for IT based technologies (D. Rama Rao)

Issues in management of research (P. Manikandan)

Issues of change in animal and fishery sciences education (P. Manikandan)

IT policy implications for NARS (D. Rama Rao and G.R.K.Murthy)

Multimedia presentations – issues, tools and the future (V.K.J. Rao and K.M. Reddy)

Participatory technology development and diffusion (B.S. Sontakki)

Pinnacle Liquid Edition Version 6.0 for DV capture and editing (V.K.J. Rao and K.M. Reddy)

Public-private partnership in agricultural research (N.H. Rao)

Right to information for good governance (D. Rama Rao and G.R.K.Murthy)

Role and importance of HR (P. Manikandan)

Score card for assessment of teachers for ASRB (Jagannadham Challa)

## Faculty News

### Papers presented at national workshops, seminars, conferences, symposia, etc.

- Ahire, L. M., Sandhya Shenoy, N., and Jayaraghavendra Rao, V. K.** (2006). Identification of Problems in an Agro-ecosystem through Snowball Technique in the National Seminar on 'Emerging Issues and Development Strategies for Dry land Agriculture and Wasteland Management', organized by the International Extension Forum (IEF), Indian Society of Dryland Agriculture (ISDA) and International Crops Research Institute for Semi-Arid tropics (ICRISAT) during March 6 to 8, 2006, at CRIDA, Hyderabad.
- Balaguru, T.** (2005). Performance-Oriented Evaluation System for Public Sector Research Organizations in Agriculture' in the TNAU Centenary Seminar at Coimbatore on September 5, 2005.
- Balaguru, T.** (2005). Policy Analysis, Formulation and Institutionalization of Urban and Peri-urban Agriculture (UPA)' in the MPAP on UPA at ICRISAT, Hyderabad, on October 14, 2005.
- Balaguru, T.** (2006). Human Resource Development in Soil Resource Management' in the National Conference on Agrobiodiversity at Chennai on February 14, 2006.
- Gopalam, A.** (2005). Rajbhasha Karyanvayen : Akankashayen in the National Seminar on Raj Bhasha Prayog Pragati and Sambhavanayen in Hindi held during November 10 and 11, 2005 at NIRD, Hyderabad.
- Gopalam, A., Reddy, P. V. R. M., and Madhavi, T.** (2006). (1) Bridging Technology with Human Spirit for Agricultural Education and (2) Modeling Strategic Management Action Plan for Curriculum up-gradation for Indian SAU system in the global scenario in 93<sup>rd</sup> Science Congress, organized by ANGRAU, Hyderabad, during January 3 to 5, 2006.
- Jagannadham Challa, Rama Rao, D., and Nanda, S.K.** (2005). Assessment of Qualitative Rating of Colleges in SAUs – Theme paper presented in the National Brainstorming Workshop on Assessment of Qualitative Rating of Colleges in SAUs during January 20 and 21, 2006 at NAARM, Hyderabad.
- Jayaraghavendra Rao, V. K., and Sandhya Shenoy, N.** (2006). Paired Comparison Ranking for Participatory Field Problem Identification. Paper presented in the National Seminar on 'Emerging Issues and Development Strategies for Dry land Agriculture and Wasteland Management', organized by the International Extension Forum (IEF), Indian Society of Dryland Agriculture (ISDA) and International Crops Research Institute for Semi-Arid Tropics (ICRISAT) during March 6 to 8, 2006, at CRIDA, Hyderabad.
- Kalpna Sastry, R., Soam. S.K., and Tiwari, S.P.** (2006). Moving towards a cross over between conservation of traditional knowledge and intellectual property, in Abstracts of 'National Conference on Agrobiodiversity' (Ed S. Kannianan, Chairman, NBA) February 12 to 15, 2006 held at National Biodiversity Authority, Chennai, p 123.
- Madhavi, T., Gopalam, A. and Reddy, P.V.R.M.** (2005). Methodological approach for networking of databases for agricultural biodiversity in Indian contexts in the National Conference on Agrobiodiversity held at Chennai.

- Naik, R., **Murthy, G. R. K.**, and Math, B. C. V. (2005). Parboiling- A tool for value addition of paddy hybrids, in National Seminar on Post production systems and strategies to the issues and challenges of food safety and security during September 22 and 23, 2005 at TNAU, Coimbatore.
- Nanda, S. K., Rama Rao, D., and Kalpana Sastry, R.** (2005). Strategies for Biodiesel Development, Paper presented at Workshop on Biodiesel strategies organized at Osmania University on December 15, 2005.
- Rama Rao, D., and Sontakki, B. S.** (2005). Policy brief on use of ICTs for sustainable development and economic growth, Paper presented in The Third International Conference on Rural India Achieving MDGs and Grassroots Development, Session on Digital Divide to Digital Opportunities for Sustainable and Economic Growth at Grassroots Level, Organised by Bhovigyan Foundation at MCR HRD Institute, Hyderabad during Nov. 10-12, 2005.
- Rama Rao, D., Sandhya Shenoy, N., and Murthy, G. R. K.** (2006). Information and Communication Technologies for linking Agricultural Research, Extension and Education institutions, Paper presented in The International Conference on Agriculture Extension, Organised by Society for Agriculture Extension at CRIDA, Hyderabad on March 8, 2006.
- Rao, K.H.**, and Sawal, R. K. (2005). Geographical Information System for Sustainable Small Ruminant Production Systems. National Seminar on "Conservation, processing and utilization of monsoon herbage for augmenting animal production" held during December 17 and 18, 2005 at CSWRI Regional Station, Bikaner.
- Rao, K.H., Reddy, G. P., Kumar, K. V., Reddy, M. N., and Rao, N. H.** (2005). GIS based Decision Support System for Sustainable Crop-Livestock Production - A case study, Paper presented in "VIII ESRI India user conference held at Delhi, during December 1 and 2, 2005.
- Rao, N.H.** (2005). Strategic Environmental Assessment of the Agricultural Sector, National Training Workshop on Institutionalizing Strategic Environmental Assessment (SEA) in India, organized by the Administrative Staff College of India, Hyderabad, on Dec 8, 2005.
- Rao, N.H.** (2006). Knowledge Driven Agricultural Development: A Framework For Implementing Information And Communication Technologies, National Convention on Knowledge Driven Agricultural Development: Management of Change organized by ARS Scientists' Forum and ICAR, at IARI, New Delhi, during March 24 to 26, 2006 (invited lead paper).
- Reddy, G.P.** (2005). Environmental sustainability through watershed management .In national conference on Sustainable Technologies in Civil and Mechanical Engineering held during, March 24 to 26, 2005 by MJCET, Hyderabad.
- Reddy, G.P.** et al (2005). Prioritization of Fisheries Research in India. In: 7<sup>th</sup> Indian Fisheries Forum, held during November 8 to 12, 2005, organized by Indian fisheries forum, Mangalore.
- Reddy, G.P., Sontakki, B. S., Sandhya Shenoy, N., Rao, V. K. J., and Soam, S. K.** (2005). Prioritization of Production Constraints in Fish Production in India. Paper presented in the Seventh Indian Fisheries Forum organized by the Asian Fisheries Society Indian Branch at Karnataka Veterinary, Animal and Fisheries Sciences University, Hebbal Campus during November 8 to 12, 2005.

- Reddy, G.P.** (2005). Agribusiness management in India .In National seminar on Capacity Building of agribusiness sector in India held during July 21 and 22, 2005 organized by Department of Agricultural Economics, ANGARU, Hyderabad.
- Reddy, G.P.** (2005). Strategic Research and Extension Plan for Strengthening Research-Extension-Farmer Linkages .In National conference on Extension Pluralism for Rural Development held during February 25 and 26, 2005 organized by Society of Extension Education, TNAU, Coimbatore.
- Reddy, G.P.** (2006). Economic Evaluation of bio diversity –Concepts and methods. In: National conference on Agro-biodiversity, held during February 12 to 15, 2006 organized by National Bio diversity Authority, Neelankarai, Chennai. pp 59-60.
- Reddy, G.P.** (2006). Risk Management in Agricultural .In National Conference No on Management of Risk in Agriculture held during January 6 and 7, 2006, organized by Agricultural Economics research Association, New Delhi. p 182.
- Reddy, P. V. R. M., **Gopalam, A.**, and **Madhavi, T.** (2006). Multilevel training cafeteria for developing awareness on agricultural biodiversity during February 12 to 15, 2006 in the National Conference on Agro-biodiversity held at Chennai.
- Samanta, R.K.**, and **Sontakki, B.S.** (2005). Emerging issues in management of agricultural research in the changing global perspectives. Paper presented by the first author in the Centenary Seminar on Recent Advances in Agricultural Research held on September 5, 2005 at Tamil Nadu Agricultural University, Coimbatore.
- Samanta, R.K.** (2005). Emerging Issues in Management of Agricultural Research in the Changing Global Perspective. Invited paper presented at the Centenary Celebrations of Agriculture College, TNAU, Coimbatore on September 5, 2005.
- Samanta, R.K.** (2005). Management of Agricultural Extension in 21<sup>st</sup> Century presented at the Management Development Programme for Women Extension Functionaries at MANAGE, Hyderabad on July 15, 2005.
- Samanta, R.K.** (2005). Recreating Green Revolution in India : Strategies and Approaches for Sustainable Agriculture presented at the 52<sup>nd</sup> FAI-SR Training Programme for Fertilizer Marketing Personnel on Marketing Challenges in the Current Business Environment organized by FAI, at NAARM, Hyderabad on May 24, 2005.
- Samanta, R.K.** (2006). Developing Trainers' Skills for Achieving Excellence in Improving Learning Capability, a lead paper presented in the National Seminar at North East Agri-Expo 2006 in Nagaland on March 29, 2006.
- Sandhya Shenoy, N., Rama Rao, D., Sontakki, B.S., and Murthy, G.R.K.** (2005). Information and Communication Technologies for linking Agriculture Research Extension and Education institutions. Proc. Workshop on 'Strengthening Research-Extension linkages' organized by Department of Agriculture and Centre for Good Governance, Marri Chennareddy Human Resource Development Institute, Hyderabad, on July 1, 2005. pp 1-10.

**Soam, S.K., Tiwari, S.P., and Kalpana Sastry, R.** (2006). Sustainable use and conservation of agrobiodiversity through protecting goods of geographical indications, in Abstracts of 'National Conference on Agrobiodiversity' (ed S. Kannaiyan, Chairman, NBA) February 12 to 15, 2006 held at National Biodiversity Authority, Chennai, 118-119.

**Tiwari, S.P., Kalpana Sastry, R., and Soam, S.K.** (2006). Paradigm shift in agri-research and education as a response to new regulatory mechanism in agro-biodiversity, in Abstracts of 'National Conference on Agrobiodiversity' (ed S. Kannaiyan, Chairman, NBA) February 12 to 15, 2006 held at National Biodiversity Authority, Chennai, 116-118.

Vizayakumar. K, **Nanda, S. K. and Ramarao, D.** (2005). Human Resource Development for the Agricultural Sector in India: A Dynamic Analysis, Paper No. 210, 23rd International Conference of the System Dynamics Society, July 17 to 21, 2005, Boston, USA.

### Participation in Seminar / Workshop / Conferences / Training Programmes etc.

#### Anwer, M.M.

- Review meeting of the programme "Ruvvish – Course on Universal Ethical Values" organized by Secretary – ICAR during April 6 and 7, 2005 in the National Agricultural Science Complex at New Delhi.
- Workshop on Brainstorming for evaluating the 1<sup>st</sup> Advanced Technology Management Training Programme for middle level scientists/technologists and standardization of its modules in addition to development of modules for a 2 week MDP for Senior Scientists at Taramati Conferencing Complex, Golconda during May 16 and 17, 2005. This workshop was sponsored by the Department of Science & Technology, GOI and organized by ASCI.
- Workshop on Psycho social support to Tsunami effected communities during June 1 to 3, 2005 at National Institute of Rural Development, Rajendranagar, Hyderabad.
- Workshop on Farmers Suicide : Dynamics and strategies of prevention during November 28 and 29, 2005 held at the National Institute of Rural Development, Hyderabad.
- National Convention on Knowledge Driven Agricultural Development: Management of change during March 24 to 26, 2006 organized by ARS Scientist' Forum held in the IARI Auditorium New Delhi.

#### Balaguru, T.

- Final Review Meeting of NATP Research at CRIDA, Hyderabad, during May 20 and 21, 2005.
- Brainstorming Workshop on Strengthening ICAR as a Catalyzing Agent of the Emerging Indian Agricultural Technology Innovation System by NAIP at PIU, New Delhi, on July 13, 2005.
- Working Group Meeting on Developing Operational Guidelines for Components 2 & 3 of NAIP by PIU at NAARM, Hyderabad, during August 5 and 6, 2005.

- TNAU Centenary Seminar on Recent Advances in Agricultural Research at Tamilnadu Agricultural University, Coimbatore, on September 5, 2005.
- Multi-stakeholder Policy Design and Action Planning (MPAP) Workshop on Urban and Peri-urban Agriculture at IWMI South Asia Regional Centre, ICRISAT, Hyderabad, during October 13 to 16, 2005.
- National Conference on Agrobiodiversity by National Biodiversity Authority (NBA) at Chennai during February 12 to 15, 2006.
- National Consultation on 'Women and Community led Dryland Natural Resource Management' by Deccan Development Society (DDS) at MANAGE, Hyderabad, during March 16 to 18, 2006.

#### **Jagannadham Challa**

- 4<sup>th</sup> Deans' Committee meeting held at MPUAT, Udaipur to finalize the Syllabus for B.Tech (Food Process Engineering) during March 5 and 6, 2006.
- Meeting convened by National Biodiversity Authority at Chennai, on June 30, 2005.

#### **Kalpana Sastry, R**

- The Current Status of Doha Development Round Negotiations under WTO at ASCI, Hyderabad on November 15, 2005.
- Seminar on Geographical Indications at Ministry of Commerce, Govt. of India, Hyderabad, during November 23 and 24, 2005.
- Workshop on IPR Management in Public Private Partnership cum Retreat at National Centre for Biological Sciences (NCBS), Bangalore, (Organized by TIFAC, New Delhi and NIH, USA), during February 7 to 10, 2006.

#### **Murthy, G. R. K.**

- Networking in Windows 2003 server at Zoom technologies, Hyderabad, (part time) during June 15 to September 15, 2005.
- Artificial Neural Networks at Optotech Systems, Bangalore during February 4 and 5, 2006.
- Right to Information Act, 2005 organized by National Institute of Public Administration, Bangalore, during February 24 and 25, 2006.

#### **Rama Rao, D.**

- IT-based personalized agricultural extension systems, IIIT, Hyderabad, on May 6, 2005.

- Web Services on Oilseeds Development, at NIC, Hyderabad, on May 31, 2006, organized by NIC and Directorate of Oilseed Development, Hyderabad, and chaired the technical session on utility of AGMARKNET portal for oilseed development.
- Infovision Summit - 2005, organized by IIIT, at Bangalore, on September 16, 2005.
- Third International Conference on Rural India – Achieving Millennium Development Goals and Grassroots Development, during November 10 to 12, 2005, organized by Bhoovigyan Vikas Foundation (an Earthcare Foundation in India), in association with Sahanav (an NGO) and the Government of Andhra Pradesh organised the at the MCR HRD Institute, Hyderabad.
- Indo-US knowledge initiative in agriculture, organized by ICAR and Ministry of External Affairs at New Delhi, during January 6 and 7, 2006.
- National e-governance seminar “Health Farm IT”, organized by IT & Communication Department, Government of AP at Hyderabad, on January 12, 2006.
- Round-table Discussion on Setting Up Online Grids of Educational and Extension Materials and for Capacity Strengthening, Jointly organized by ICRISAT and the COL, on February 15, 2006.
- International Conference on Agricultural Extension organized by Society for Agricultural Extension at CRIDA, Hyderabad, on March 8, 2006.

#### **Samanta, R. K.**

- Training programme on MDP on Creative Solutions to HR Problems at IIM, Ahmedabad, during February 20 to 23, 2006.
- National Seminar on Gender Mainstreaming in Agricultural Research, Extension and Training : Priorities and Problems during October 25 to 27, 2005 and co-chaired a technical session I – Gender Issues in Agriculture on October 25, 2005.

#### **Rao, K. H.**

- First scenario analysis workshop on The future of Indian Agriculture and the Role of Agricultural Technology (NATP – Phase II) held during April 21 and 22, 2005 at New Delhi.
- Training programme on Participatory Management and Collective Decision Making held at AMR-Andhra Pradesh Academy of Rural Development, Rajendranagar, Hyderabad, during July 11 to 16, 2005.
- VIII Annual India ESRI user conference held at Delhi during December 1 and 2, 2005.

#### **Rao, N. H.**

- ICAR-Department of Agriculture Regional Interface Meeting on Water Management, on April 16, 2005, at CRIDA, Hyderabad.

**Reddy, M. N.**

- Infovision Summit - 2005, organized by IIIT, at Bangalore, on September 16, 2005.

**Sandhya Shenoy, N.**

- National Workshop on IT based Personalized Agricultural Extension Systems organized at International Institute of Information Technology, Hyderabad, on May 6, 2005.
- Workshop on Strengthening Research-Extension linkages organized by the Department of Agriculture and Centre for Good Governance, Marri Chennareddy Human Resource Development Institute, Hyderabad, Andhra Pradesh on July 1, 2005.
- Workshop on Building perspectives, skills and innovative strategies for livestock development in rain-fed agriculture context by ANTHRA at MANAGE from November 30 to December 1, 2005.
- The National e-governance seminar on Usage of ICT in Agriculture and Health sector organized by the Information Technology and Communication Department, Government of Andhra Pradesh on January 12, 2006.

**Soam, S. K.**

- Workshop on technology transfer, commercialization, IP management and marketing of technologies, organized by Indian School of Business (ISB), Hyderabad on April 25, 2005 held at ISB campus.
- Workshop on public private partnership for intellectual property protection of small and medium enterprises, organized by Confederation of Indian Industries (CII) Hyderabad on April 26, 2005 held at Hotel Green Park, Hyderabad.
- ICAR-IPA national conference on IPR and management of agricultural research, organized by ICAR, Delhi and Indian Potato Association (IPA), Shimla during August 27 to 29, 2005 held at NASC Auditorium, New Delhi.
- Seminar on geographical indications, organized by ministry of commerce and industries in cooperation with European Union during 23 and 24, November 2006 held at hotel Taj Mahal, New Delhi.
- International conference on IPR, organized by Confederation of Indian Industries (CII) New Delhi, during 30 and 31 January 2006 at hotel Windsor Manson, Bangalore.

**Sontakki, B. S.**

- Workshop on IPR & Technology Transfer, Licensing & Commercialization Strategies, organized by Sathguru Management Consultants & Cornell-in-India at Mussorie during April 17 to 22, 2005.
- National Workshop on e-Sagu – IT-based Personalized Agricultural Extension System at IIIT, Hyderabad, on May 6, 2005.

- Working Group Meeting to Revise Guidelines for SREP Preparation at MANAGE, Hyderabad, during May 13 to 15, 2005.
- Interaction Meet on Key Issues in Rural Livelihood Component of NAIP at CRIDA, Hyderabad, on October 27, 2005.
- Seventh Indian Fisheries Forum at KVAFSU, Hebbal Campus, Bangalore, during November 8 to 12, 2005.
- National Convention on Demand Driven Agricultural Development – Management of Change at ARSSF at IARI, New Delhi, during March 24 to 26, 2006.

#### **Tiwari, S. P.**

- Pigeonpea & MULLarp Annual Group Meet, 2005 at ANGRAU, Hyderabad on May 5, 2005 and made the opening remarks in the Inaugural function.
- Second meeting of Biodiversity Act at Krishi Bhavan, New Delhi, on May 9, 2005 discussed Constitution of Committee regarding issues relating to BD Act 2002 – Follow up Action.
- Final Review Committee Meeting at CRIDA, Hyderabad on May 20, 2005.
- Fourth Deans Committee Meeting at Education Division, ICAR, New Delhi on May 24, 2005.
- Meeting of the Working Group – NAIP at NATP, New Delhi, on June 21, 2005 for developing Guidelines on Project Components 2 & 3 under NAIP.
- SOC Meeting at ICAR, New Delhi, and presented Provisions of BD Act – Germplasm Exchange and Guidelines on July 8, 2005.
- XVIII Meeting of ICAR Regional Committee No. V - CIFA, Bhubaneswar, Organized by CRIDA, Hyderabad, during July 21 and 22, 2005.
- Preparatory Meeting of the Directors of four Genetic Bureaus of ICAR at NBFGR, Lucknow, to set up the agenda for the workshop on July 25, 2005.
- Working Group Meeting on Component I at PIU-NATP, New Delhi on August 12, 2005.
- Meeting on Formation of the Committee on Agro-Biodiversity and other related issues at Krishi Bhavan, New Delhi on August 17, 2005.
- Meeting of the Advisory Committee of 93<sup>rd</sup> Indian Science Congress at ANGRAU, Hyderabad on August 25, 2005.
- 3<sup>rd</sup> Working Group meeting of Component – I of NAIP at New Delhi on September 21, 2005.
- Plenary Session in the National Conference on Tobacco – 2005 by CTRI, Rajahmundry at ANGRAU, Hyderabad on October 6, 2005.

- National Consultation on Food Security Corridor being organized by Deccan Development Society at MANAGE, Hyderabad on October 18, 2005.
- Hindi Celebrations closing ceremony at NRC Oil Palm, Pedavegi, Andhra Pradesh as a Chief Guest on October 26, 2005.
- Committee to evaluate the Access; Patent, Transfer of Research Results and Material Transfer Applications Meeting at NBA, Chennai on November 11, 2005.
- Special Meeting to evaluate the access, Patent, Transfer of Research Results and Material Transfer Applications, NBA, Chennai, on December 29, 2005.
- Inaugural function of Integrated Rural Development Science & Technology and National Virtual Congress Farmers – inaugurated by Hon'ble President of India Dr A.P.J. Abdul Kalam, on January 5, 2006.
- Two day meet regarding Indo-US Agriculture Initiative at Krishi Anusandhan Bhavan II, New Delhi, on January 6-7, 2006.
- IV Deans' Committee Meeting held at ANGRAU, Hyderabad, during January 19 and 20, 2006.
- 37<sup>th</sup> Annual Convocation of ANGRAU, Hyderabad on February 2, 2006.
- Special Presentation on “Regulatory and Operational Mechanism related to Agro-biodiversity” at Vice Chancellors' Conference at GBPUAT, Pantnagar, during February 4 and 5, 2006.
- Chaired a Session in plenary session on Agro-biodiversity Policy Issues at the National Conference, NBA, Chennai, during February 14 and 15, 2006.
- Discussion and Planning for NAIP Project at NRCS, Hyderabad on February 20, 2006.
- 12<sup>th</sup> National Seed Seminar on “Prosperity through Quality Seed” at ANGRAU, Hyderabad on February 24, 2006.
- Session on “New Seed Bill and IPR” in the National Seed Seminar on “Prosperity through Quality Seed” at ANGRAU, Hyderabad on February 25, 2006.
- National Workshop on “Indian Cotton Farming at the Cross Roads - Strategies and Ways Forward” at MCR HRD Institute, Hyderabad on February 27, 2006.
- Delivered key note address in the Second National Plant Breeding Congress on “Plant Breeding in Post Genomics Era” at TNAU, Coimbatore during March 1 to 3, 2006.
- Brain Storming Session on “IPR and related issues in Indian Agriculture” in the Second National Plant Breeding Congress at TNAU, Coimbatore on March 1, 2006.
- Meeting of Deans of Agricultural Engineering Colleges at College of Agricultural Engineering, PAU, Ludhiana, during March 10 and 11, 2006.

## Guest Lectures

### Anwer, M. M.

- ◆ HRM – Management of self and others at Central Potato Research Institute, Shimla, on April 28, 2005.
- ◆ Enhancing leadership in Workshop on Behavioural skills for organizational management on October 17, 2005 and January 31, 2006 at National Academy of Customs Excise and Narcotics, Hyderabad.
- ◆ Leadership skills for HRD in ‘Workshop on HRD’ at Extension Education Institute, Hyderabad on December 19, 2005.
- ◆ Leadership Development at National Bureau of Soil Survey & Land Use Planning, and Central Institute of Cotton Research, Nagpur, during March 7 to 9, 2006.

### Balaguru, T.

- ◆ Urban and Peri-urban Agriculture: Policy Analysis, Formulation and Institutionalization in the training programme on ‘Multi-stakeholder Policy Design and Action Planning’ organized by the South Asian Regional Centre of IWMI located at ICRISAT Campus on December 16, 2005.
- ◆ Farming Systems Approach in the international training programme on Strategies for Sustainable Agriculture and Rural Development organized by NIRD, Hyderabad, on January 10, 2006.
- ◆ Farming Systems Approach in the training programme on Sustainable Management of Agricultural Extension organized by MANAGE, Hyderabad, on February 8, 2006.
- ◆ Patent Cooperation Treaty in the training workshop on Biodiversity, PVR&FR for Protection of Intellectual Property, organized by NRCS, Hyderabad, on March 1, 2006.

### Jagannadham Challa

- ◆ Students Assessment and Evaluation to the Summer School participants organized by TANUVAS, Chennai, on July 27, 2005.
- ◆ Educational Technology at Chaitanya Bharathi Institute of Technology, Hyderabad on July 26, 2005.

### Kalpana Sastry, R.

- ◆ Various Dimensions of IPR in University of Agricultural Sciences, Raichur campus on June 22, 2005.
- ◆ IPR Issues in the Context of Farmers’ Rights in workshop on Seed and Farmers, Centre for Sustainable Agriculture on October 19, 2005.
- ◆ IPRs in Indian Agriculture in Short course on Market Intelligence and IT in Agriculture at Dept of Agril. Economics, ANGRAU, Hyderabad on November 22, 2005.

- ◆ Intellectual Property Rights in Agriculture in Andhra Pradesh (in Telugu) in the programme on WTO and its Implications on Agriculture - for Farmer Groups Commissioner & Director of Agriculture, Hyderabad on November 7, 2005.
- ◆ IPRs in Indian Agriculture in programme on IPR and WTO related Issues at ASCI, Hyderabad on December 7, 2005.
- ◆ WTO- TRIPS and Indian Agriculture in Foundation Course for Newly Recruited agricultural Officers at Commissioner & Director of Agriculture, Hyderabad during December 12 to 24, 2005.
- ◆ WTO - IPRs in Indian Agriculture (as relevant to AP state) in the programme Capacity Enhancement for Reengineering Extension Approaches for the Officers of Agricultural Department at SAMETI, Hyderabad and Centre of Good Governance during January 30 to March 11, 2006 (7 batches) each session of two hours duration on 7 days; 1375 functionaries were trained.
- ◆ IPRs in Indian Agriculture in the programme WTO and its implications on Agriculture at MANAGE, Hyderabad on December 5, 2005.
- ◆ IPRs in Indian Agriculture to the scientist/faculty of ANGRAU, WTO Cell, College of Agriculture, ANGRAU, Hyderabad during January, 24 to February 15, 2006 (4 batches).
- ◆ IPR and PBR to the participants of the programme on Sorghum DUS testing at NRCS, Hyderabad on February 2, 2006.
- ◆ IPR Portfolio Management In ICAR at NRCS, Hyderabad on March 3, 2006.
- ◆ Contract Labour on HR-Elective for MBA final year students at School of Management Studies University of Hyderabad on March 8, 2006.

#### **Manikandan, P.**

- ◆ Conflict Resolution and Negotiation Skills at National Institute of Rural Development, on August 12, 2005, in the Course on Behavioural Skills for Organizational Development.
- ◆ Conflict Management and Negotiation at Extension Education Institute, on December 17, 2005 in the Workshop on Behavioural Skills.
- ◆ Performance Appraisal at Extension Education Institute, on September 15, 2005 in the Workshop on Human Resource Development.
- ◆ Role and Importance of HR at Institute of Cooperative Management, on March 27, 2006 in the 56<sup>th</sup> HDCM programme.
- ◆ Training and Development and Performance Appraisal at Institute of Cooperative Management, on March 28, 2006 in the 56<sup>th</sup> HDCM programme.

#### **Reddy, M. N.**

- ◆ Introduction to Agricultural Statistics to the participants of Diploma Course in Plant Protection at NPPTI, Hyderabad on July 13, 2005.

- ◆ Precision farming & GIS applications in Agriculture at EEI, Hyderabad, on November 16, 2005.
- ◆ Basics of Data management Systems to the participants of the training programme on Market Intelligence and IT in Agriculture organized by the Department of Agricultural Economics, ANGRAU, Hyderabad, on January 23, 2006.
- ◆ Use of computers in Monitoring and Evaluation to the participants of the workshop on Monitoring and Evaluation organized by Extension Education Institute, ANGRAU, Hyderabad, on February 20, 2006.

#### **Samanta, R. K.**

- ◆ Empowering Rural Women: New Vista for Integrated Rural Development at Agriculture and Forestry Science Section of the 93<sup>rd</sup> Indian Science Congress, organized by ANGRAU, Hyderabad on January 6, 2006
- ◆ Eighth annual endowment lecture on Role of Animal Sciences Research, Education and Extension in Accelerating Animal production and Growth in the name of Puratchi Thalaivi Dr J. Jayalalithaa, Hon'ble Chief Minister of Tamil Nadu, organized by the Tamil Nadu Veterinary and Animal Sciences University at Chennai on November 15, 2005.
- ◆ Managers' Profile of Personality: Extension Scientists at TNAU to faculty, PG students and Ph.D. scholars of Dept. of Ag. Extension and RD on September 5, 2005.
- ◆ Inter-personal Communication Skills in the Programme on Communication Skills Development for State Agricultural Functionaries at EEI, Hyderabad during September 17 and 19, 2005.
- ◆ Transactional Analysis and Communication Skills for Achieving Success and Excellence at the National Academy of Customs, Excise & Narcotics, Regional Training Centre, Hyderabad on October 18, 2005.
- ◆ Gender Mainstreaming in Agricultural Research Extension and Capacity Building for Women Empowerment at the National Seminar on Gender Mainstreaming in Agricultural Research, Extension and Training : Priorities and Problems at NRC Women in Agriculture, Bhubaneswar, on October 26, 2005.
- ◆ Profile of Personality and Communication Skills to the participants of the Course on Facility Management at National Academy of Construction, Hitech City, Madapur, Hyderabad, on December 14, 2005.
- ◆ Communication – Key to Human Development in the Training Programme on Communication Skills for Animal Husbandry Officials from Chattisgarh at MANAGE, Hyderabad, on January 27, 2006.
- ◆ Communication Skills was presented at the National Academy of Customs, Excise and Narcotics, Regional Training Centre, Hyderabad on January 30, 2006.

#### **Sandhya Shenoy, N.**

- ◆ Cyber extension – ICTs for knowledge networking in agriculture in 'Adhyayan – 2005' at School of Informatics, Andhra Mahila Sabha, on October 7, 2005.

- ◆ Women in Agriculture at Orientation programme on agriculture and allied areas to the students of journalism and mass communication on October 21, 2005 and Agriculture media skills for FM Radio functionaries on January 20, 2006 at MANAGE, Hyderabad.
- ◆ Concept and importance of Agricultural Information System in Workshop on Information Communication Technology on November 9, 2005 at EEI, Hyderabad.
- ◆ Impact of WTO on women in agriculture in WTO and its impact on Agriculture on December 6, 2005 at MANAGE, Hyderabad.

#### **Tiwari, S. P.**

- ◆ Plant Breeders Rights and Biotechnology related IPR Issues to the participants of the programme on IPR, WTO related issues for scientists of various organizations in the country at Administrative Staff College of India, Hyderabad on January 25, 2006.
- ◆ Prosperity through hybrid seed in field crops to the participants of National Seed Seminar on Prosperity through Quality Seed at ANGRAU, Hyderabad on February 24, 2006.
- ◆ Analysis of Work environment at NARS at National Convention on Knowledge Driven in Agricultural Development: Management of Change by ARS Forum at New Delhi on March 25, 2006.

### **Special Assignments**

#### **Balaguru, T.**

- Evaluated the theses of two students from the Acharya N.G. Ranga Agricultural University for the award of M.Sc. (Ag.) degree in Soil Science & Agricultural Chemistry discipline.

#### **Manikandan, P.**

- Guided one student of Osmania University for the M.B.A. Project work. The work was carried out on the project titled "Team Orientation and Behaviour of Scientists in Selected Agricultural Research Institutes".
- Examined the Ph. D thesis titled "Evolving, Implementing, and Monitoring LEISA based Agro-Ecological System of Rice Intensification (SRI) in Salt Affected Coastal Regions of Pondicherry Through Participatory Approaches" of Pondicherry University.

#### **Murthy, G. R. K.**

- Guided three B.Tech. students of Sri Venkateswara Engineering College, Suryapet, A.P. on, Call login system, to develop automated management system for maintenance of computer and peripherals in organizational setup. Software was developed in VB.Net environment to log in computer and peripheral related complaints and track and monitor the progress of its maintenance.

#### **Rao, N. H.**

- Reviewed research project proposals by DST and referee for journal Current Science.

- Recognized as external guide by Birla Institute of Technology and Science, Mesra, for a Ph.D. student (presently working as Scientist at DRR) for proposed thesis research, 'Development of GIS Based DSS for management of rice based production systems'.

#### **Samanta, R. K.**

- Examined the Agricultural Extension Education on Ph.D. Thesis: Farmers Adoption of Modern Rice Practices and Rice Productivity in Habiganj District of Bangladesh, Bangladesh Agricultural University, Mymensingh, Bangladesh, during August, 2005.
- The Ph.D. Thesis of Mr Manvar Vidyanand Sadashiva Rao in Agriculture Extension, titled Role of Media Mix in Communication of Simple Agricultural Technology, Marathwada Agricultural University, Parbhani, Maharashtra in October, 2005.
- The Ph.D. Thesis in Agricultural Extension of Mr V. Ravi Shankar titled Agricultural Weather Forecasting – Impact and Analysis in Andhra Pradesh, ANGRAU, Rajendranagar, Hyderabad, during December 2005.
- Evaluated the three project proposals of Central Sericultural Research and Training Institute, Central Silk Board, Barhampore, West Bengal during November – December 2005. The projects are: i) A study on constraint analysis in Mulberry Sericultural Technology Transfer; ii) A study on impact of different schemes and subsidies to Sericultural farmers of West Bengal towards development of sericulture, and iii) Role of extension personnel in disseminating sericultural technologies as perceived by the sericultural farmers.

#### **Higher Degrees Awarded**

- K. H. Rao, Senior Scientist, was awarded Master of Business Administration (Human Resources Management) degree by Indira Gandhi National Open University (IGNOU), New Delhi.
- V.K.J. Rao, Senior Scientist, was awarded Post Graduate Diploma in Marketing Management (PGDMM) by Indira Gandhi National Open University (IGNOU), New Delhi.
- B.S. Sontakki, Senior Scientist, was awarded Diploma in Management (DIM) by Indira Gandhi National Open University (IGNOU), New Delhi.

## Visitors

### World Bank Team

World Bank Team comprising Dr Jacob Kampen and Ms Zenete Franca, accompanied by Dr D.P. Singh, National Coordinator (PSR), visited the Academy on May 5, 2005, for developing proposals for the National Agricultural Innovation Project (NAIP). On this occasion, Dr S.P. Tiwari, Director, NAARM, presented the achievements of the Academy. Dr R.K. Samanta, Joint Director, NAARM, Mr Vijaya Raghavan, Satguru Foundation, Hyderabad; Dr Y.S. Ramakrishna, Director, CRIDA; Drs K.P.R. Vittal and B. Venkateswarlu, scientists from CRIDA; Drs T. Balaguru, P. Manikandan, D. Rama Rao, M.M. Anwer, N. H. Rao, and B.S. Sontakki from NAARM attended the meeting.

The NAARM faculty presented the concept papers developed by the Academy for inclusion in NAIP. The proposals were discussed in the meeting. Based on the suggestions that emerged during the meeting, consolidated proposals with all details, including the budget, were sent for consideration under NAIP. In addition, six proposals were developed by the Academy for support through retroactive funding of NAIP.

### Regional Coordinator, BAR, Philippines

Ricarate V Castro, Senior Regional Coordinator, Department of Agriculture, Bureau of Agricultural Research (BAR), Philippines, visited the Academy on September 15, 2005. Dr S. Prakash Tiwari, Director, NAARM, welcomed the dignitary and explained the activities of the Academy. He presented a brief account of Academy's achievements in Information Technology Applications in Agricultural Research Management, besides capacity building of National Agricultural Research System (NARS) in developing agricultural management decision support systems using Geographical Information System (GIS), development of agricultural resource and related databases and spatial information systems. Dr Castro visited the facilities at the Academy and had one to one discussions with the Heads of Divisions. He expressed keen interest on activities of mutual interest between Philippines and India in the area of Information and Communication Technologies.

### Director General, ICAR



Dr Mangala Rai, Director General, ICAR, and Secretary, DARE, Govt. of India, addressed the scientist probationers of the 79<sup>th</sup> Foundation Course for Agricultural Research Service (FOCARS) on August 19, 2005. The speed with which new technology gets into farmers' hands would depend largely on the effectiveness of linkages and synergy among different components of the National Agricultural Research System. He exhorted the young ARS scientists to accept the challenges and direct their energies in bringing about a science and technology-led growth to attain sustainability and farm prosperity in agricultural sector.

### Others

- Mr Usama Al Saadi and Mr Waficcd Hosni, Senior Executives from National Agricultural Policy Centre, Damascus, Syria visited the Academy on February 27, 2006.
- Dr K. Ghosh, Agriculture Office, FAO, Rome, Italy visited the Academy on February 24, 2005.
- Prof S. Kannayan, Chairman, National Biodiversity Authority, Chennai visited the Academy on October 14, 2005.

## Personnel

### Management Positions

S. Prakash Tiwari, Director  
R.K. Samanta, Joint Director (Training)

### Scientific Positions

T. Balaguru, HOD, ARSMP  
P. Manikandan, HOD, HRD  
D. Rama Rao, HOD, ICM &  
S.N. Saha, Principal Scientist (up to January 31, 2006)  
A. Gopalam, Principal Scientist  
Jagannadham Challa, Principal Scientist  
K. Vidyasagar Rao, Principal Scientist  
K.M. Reddy, Principal Scientist  
M.M. Anwer, Principal Scientist  
M. Narayana Reddy, Principal Scientist  
N. Hanumantha Rao, Principal Scientist  
C. Sriram, Principal Scientist  
R. Kalpana Sastry, Principal Scientist  
N. Sandhya Shenoy, Principal Scientist  
S. K. Nanda, Senior Scientist  
K. Hanumantha Rao, Senior Scientist  
R.V.S. Rao, Senior Scientist  
S.K. Soam, Senior Scientist  
V. K.J.R. Rao, Senior Scientist  
B. S. Sontakki, Senior Scientist  
G.P. Reddy, Senior Scientist  
G.R.K. Murthy, Senior Scientist

### Technical Positions

#### Grade T (7-8)

R.V.V.S. Prakasa Rao, Editor  
V. Murali, Garden Superintendent (on study leave)  
A. Debnath, Medical Officer  
Zameer Ahmed, Manager (HS)  
M.A. Basith

#### Grade T-6

D. Venkateswarlu (on study leave)  
Ch. Janardhan Rao  
P. V. Nirmala  
K.V. Kumar  
P. Vijender Reddy

**Grade T-5 (Technical Officers)**

N.R. Nageswara Rao  
 P. Namdev  
 Sohail Ahmed Khan  
 Bansidhar Nayak  
 G. Aneeraja  
 P. Mohan Singh

**Grade T-4**

B. Veeraiah, Farm Asst.  
 N. Naresh Kumar, VCR Optr.  
 M. Shekhar Reddy, Dark Room Asst.  
 Ahire Laxman, Tech. Asst (Hort.)  
 L. Ramesh, Tech. Asst. (Elect.)  
 Sham Bahadur, Catering Incharge.  
 Savithri, Catering Incharge  
 D. Dhanalakshmi, Lib. Asst.  
 B.S.N. Murthy, Tech. Asst. (Elect.)  
 K. Obulapathi, Tech. Asst. (Elect.)  
 M. K. Shamsuddin, Tech. Asst. (Elect)

**Grade T-3**

A.C.P.R.N. Rao, Lineman  
 M. Mohan Rao, Tech. Asst. (Elect.)  
 M. K. Sonkusare, Tech. Asst. (Elect.)  
 K. Shivaiah, Tech. Asst. (Elect.)  
 D. Rajagopal Rao, PAE Optr.  
 B. Satyanarayana, Tech. Asst. (Elect.)  
 P. Srinivas, Proof Reader  
 Mahesh Kumar, Hindi Translator

**Grade T-2**

S. Sunder Raj, Media Optr.  
 N. Ashok, Driver  
 P. Eswari, P.T. Driver  
 T. Laxman, Driver  
 G. Muthyalu, Driver  
 M. Padmaiah, Tractor Driver  
 U. V. Ratnam, Driver  
 P. Gaikwad, Binder  
 N. Prabhakar, Plumber  
 D.R.S. Rao, Pump Driver  
 M. Srinivasa Rao, Pump Driver  
 K. V. Narasaiah, Carpenter

**Grade T-I-3**

M. M. Mohan Rao, Veh. Mech.

**Grade T-1**

B. K. Venkatram, Pump Driver  
 R. Siva Prasad, Driver (from Oct 20, 2005)

**Administration & Finance**

M. Suresh Kumar, CAO  
 S. K. Pathak, F&AO (up to May 16, 2005)  
 V.S. Subramanian, F&AO (from May 20, 2005)  
 Y. Shankara Rao, Asst. Admn. Officer  
 P.P. Brahmaji, Asst. Admn. Officer  
 C. Bagaiah, Junior Accounts Officer

**Private Secretaries**

L. Jhansi Lakshmi  
 Sarada Samanta  
 N. Raghunath

**Asst. Directors (Hindi)**

J. Renuka  
 S. Pradeep Singh

**Security Officer**

B.Ch. Satyanarayana

**Assistants**

P.G. Kohad  
 M. Narasimha Rao  
 P. Neelakantam  
 M. Dinesh  
 T. Srinivas  
 G. Raj Reddy  
 C. Phani Raj

**Personal Assistants**

P. Anand Kumar  
 A. Mercy  
 T. V. Ramadas  
 T. Vanisri  
 M. Venkatesh  
 Y. Anuradha  
 S. Sessa Sai  
 Rukmani Ammal

**Stenographers Grade III**

K. Radha Sujatha  
 S. Shanthi  
 V. Shailaja  
 N. Vijayalakshmi

**Upper Division Clerks**

B. Padma Saroja  
 P. Srinivasu  
 G. Jessie Ecclia

R. Chandrababu  
 M. Sridhar  
 C. Julius Samuel  
 Y. Gayathri  
 K. R. Ghanshyam  
 P. Venkatesh  
 M. K. Samson  
 B. H. Dharmaraj  
 Rajashri Bokde  
 K. Suryanarayana

**Supporting**

S. Swamy, Asst. Gestt. Operator  
 Venkatesham, Xerox Operator

**Grade IV**

G. Manibai

**Grade III**

M. Ashok  
 P. Balraj  
 C. Bickshapathi  
 G. V. Bikshapathi  
 Phool Kumar  
 B. Santhamma  
 P. Swamy  
 M. Yadaiah  
 Khalid  
 S. Shakuntala

**Grade II**

B. Bharathamma  
 S. Jangaiah  
 K. Kalavathi  
 K. Satyanarayana  
 K. Pentaiah  
 T. Jangamma  
 P. Yadaiah  
 M. Narsing Rao  
 G. Pentaiah  
 M. Shyam Rao  
 J. Chandraiah  
 M. Krishnaiah

**Grade I**

G. Anasuya  
 I. Bharathamma  
 C. Chandramouli

G. Dasaratha  
M. Eswaramma  
K. Hemlal  
R. Sattiah  
Nazia Parveen  
L. Satyanarayana

N. Sukunamma  
A. Yadaiah  
M. Yadamma  
C. Narsubai  
C. Kausalya  
D. Vittal

## Welcome

Mr Mahesh Kumar (Hindi Translator) (T-3), joined the Academy on November 10, 2005 on transfer from CIBA, Chennai.

## Congratulations

NAARM family extends hearty congratulations to the following staff members of the Academy for their success.

- Mr P. Srinivas, Proof Reader (T-2), for being promoted to the post of Technician (T-3), w.e.f. 29-6-2001.
- Mrs Nazia Parveen, SSG-1, for being elevated to the next higher pay scale under ACP Scheme, w.e.f. 22-12-2004.
- Mrs S. Shanti, Stenographer, Grade III, for being elevated to the next higher pay scale under ACP Scheme, w.e.f. 25-2-2005.
- Mrs K. Radha Sujatha, Stenographer, Grade III, for being elevated to the next higher pay scale under ACP Scheme, w.e.f. 25-2-2005.
- Mrs V. Shailaja, Stenographer, Grade III, for being elevated to the next higher pay scale under ACP Scheme, w.e.f. 26-2-2005.
- Mrs N. Vijaya Lakshmi, Stenographer, Grade III, for being elevated to the next higher pay scale under ACP Scheme, w.e.f. 14-7-2005.

## Retirement

Dr S.N. Saha, Principal Scientist, retired on superannuation on January 31, 2006. NAARM family wished him a happy, peaceful retired life during the felicitation organized on the occasion.



Mr B. Satyanarayana, Tech. Elec. (T-3), retired on superannuation on February 28, 2006. NAARM family wished him a happy, peaceful retired life during the facilitation organized on the occasion.