



6. Partnership and Linkages

The Department of Agricultural Research and Education (DARE) was established in the Ministry of Agriculture in December, 1973. Subjects allotted to the DARE as per the Government of India (Allocation of Rules) are specified in Appendix I of DARE.

The Indian Council of Agricultural Research (ICAR) is an autonomous body under the Department of Agricultural Research and Education. The Secretary to the Government of India in the DARE functions as the Director-General of the ICAR. The Financial Adviser of the DARE is the Financial Adviser of the ICAR. Generally single-file system is followed between DARE and ICAR.

The Department has one more autonomous body viz. the Central Agricultural University, Imphal under its administrative control. The University, which was established in 1993 has its jurisdiction over Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Sikkim and Tripura, and is wholly financed by the Government of India, and its activities are given in this chapter.

The DARE has 15 Group A, 12 Group B, 16 Group C, and 6 Group D employees. The recruitment to the post in the Groups A, B, C is being made centrally, either through the Department of Personnel and Training or through the Department of Agriculture and Co-operation, depending on the level of the post. The DARE makes direct recruitment only to Group D posts. Such recruitments are being made in accordance with the orders of the Government of India regarding reservations for Scheduled-Castes, Scheduled-Tribes, and Other Backward Classes. Presently, DARE has 6 Scheduled-Castes employees.

A detailed break up of the posts and names of the important functionaries is given in Appendix II of DARE. The financial requirement (Grant No. 2) includes budget estimates (BE) and revised estimates (RE) of DARE and ICAR (Plan and Non-Plan) 2005–2006 respectively, and BE for 2006–07 (Plan and Non-Plan). The detailed break up of these financial figures is given in Appendix III of DARE.

The International Co-operation in ICAR/DARE has been operating through the MoUs/Work Plans signed with various countries/International organizations with ICAR/DARE as the Nodal Department and through participation of ICAR/DARE in the MoUs/Work Plans signed by the Department of Agriculture and Co-operation as Nodal Department. Besides Ministry of Science and Technology has developed Programme of co-operation with various

- DARE finances Central Agricultural University, Imphal cent per cent. A college, in the faculty of Agricultural Engineering and Post-harvest Technology in Gangtok, Sikkim established in current session.
- Memorandum of Understandings were signed during 2006–07.
- DARE/ICAR signed a Memorandum of Understanding between the Republic of India and the Republic of Argentina in the field of Agricultural Research and Education.
- Work Plans were signed with Namibia, Uzbekistan, Eritrea, Cornell University, USA and Egypt in field of agricultural research and education during the reported year.
- DARE/ICAR has signed Collaborative Projects, viz. Sustainable aquafeeds to maximize the health benefits of farm fish for consumer, Biosaline agro-forestry project (BIOSAFOR), and has in principle agreed to participate in the "International Potato Genome Project,".
- To strengthen our research programme and intermediate/appropriate technologies research workers visited foreign countries, viz. Australia, Bangkok, Yemen, Thailand, Korea, etc. from different organizations and ICAR (Hq).
- Scientists of different countries, viz. Malawi, Eritrea, Mozambique, Ethiopia etc. also visited India to attend research programmes of different research bodies of the ICAR.
- The ICAR Institutes/State Agricultural Universities/Central Agricultural University deputed scientists abroad, viz. Afghanistan, Israel, USA, Niger, China, Serbia, Moutenegro Egypt etc. for developing competence in Biotechnology and made concerted efforts for Human Resource Development of administrative and finance personnel of the ICAR.
- DARE has hosted delegations from Egypt, Uzbekistan etc.

countries and international organizations in which ICAR/DARE is the participating agency in agricultural research. The Joint Commissions/Working Groups constituted by the Ministry of External Affairs, and the Ministry of Commerce have the component of agriculture/agricultural research in which DARE participates directly or through the Department of Agriculture and Co-operation.



MoUs/Work Plans

The activities of the Division are mainly carried out under Memorandum of Understandings (MoUs)/Agreements/Work Plans signed with different international organizations/ countries etc.

- Work Plan for 2007 was signed between the Department of Agricultural Research and Education, Ministry of Agriculture, Government of the Republic of India, and the Ministry of Agriculture and Water Resources, Government of the Republic of Uzbekistan on 26 April 2006.
- A Memorandum of Understanding was signed between the Ministry of Agriculture of the Government of the Republic of India and the Secretariat of Agriculture, Livestock, Fisheries and Food of the Argentine Republic in Agricultural Research on 5 July 2006.
- ICAR and the Brazilian Agricultural Research Cooperation (EMBRAPA) signed a Work Plan for the years 2006–07 for cooperation in the field of agricultural research at Brazilia on 12.09.2006.
- A Work Plan between India and Namibia for 2007–2008 was signed on 10 November 2006 at Windhoele Namibia for co-operation in the field of Agricultural Research and Training.
- A Memorandum of Understanding was signed between the Government of the Republic of India and the Government of the Republic of Sudan for co-operation in the field of agriculture and allied sectors on 2 June 2006.
- A Work Plan for 2007–2008 was signed between the Government of the Republic of India and the Government of the State of Eriteria under the Memorandum of Understanding for co-operation in the field of agricultural research and education.
- A Memorandum of Understanding was signed between the Indian Council of Agricultural Research and the Chinese Academy of Agricultural Sciences, China, for co-operation in agricultural research on 21 November 2006.

- Work Plan for 2007–08 was signed between the Indian Council of Agricultural Research and the Agricultural Research Centre, Ministry of Agriculture and Land Reclamation, Egypt on 16 December 2006.
- A Work Plan for 2007–08 was signed under the Memorandum of Understanding between the Indian Council of Agricultural Research, New Delhi, India and the College of Agriculture and Life Sciences, Cornell University, Ithaca, New York, USA, for co-operation in agricultural research and education on 22 January 2007.

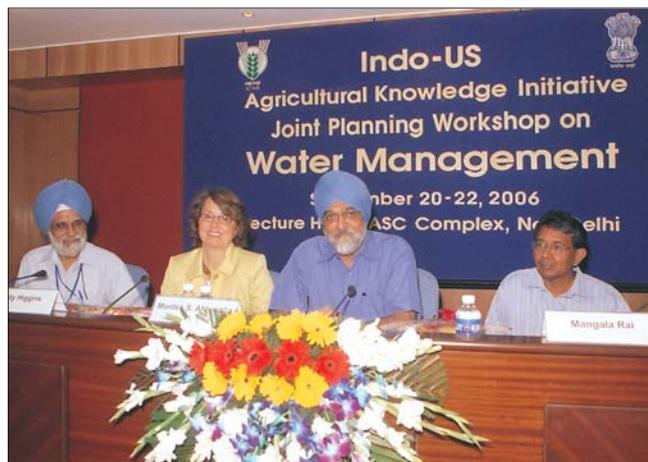
Indo-Foreign Collaborative Projects

During the reported period a number of foreign collaborative projects were received and considered. However, following projects were approved for implementation by the various Institutes of the ICAR.

Under 6 Framework Programme on 'Research Technological Development and Demonstration (FP-6) of the European Union' following two projects were approved for implementation.

"Sustainable aquafeeds to maximize the health benefits of farm fish for consumer": Participation of Central Institute of Freshwater Aquaculture (CIFA) in the above European Union Project was accepted for funding by the European Union. The proposed project is to be executed by a consortium of 32 institutes including CIFA for 48 months w.e.f. 21 September 2006. The objectives of the project were (i) to develop feeds based on sustainable alternative to fish-meal and fish-oil to produce healthy and minimally contaminated fish that are highly nutritious and acceptable to consumers; (ii) to assess health benefits of fish produced on new feeds; (iii) to assess the safety of fish farmed on the new feeds, and (iv) to assess perceptions regarding farmed fish and to advise a framework to communicate the risk and benefits of consuming farmed fish to the public and other stakeholders.

The total outlay for the project is 15,894,307 Euro out of which





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EU contribution is 10,500,000 Euro. Funds meant for CIFA are to the tune of Euro 95,000 and counter part contribution of the institute is Euro 99,588 which will be in kind.

Biosaline agro-forestry project—BIOSAFOR: Central Soil Salinity Research Institute, Karnal, and Central Arid Zone Research Institute, Jodhpur, are the participating institutes in the above European Union project from Indian side. Other partners are Holland, Spain, Germany from Europe; and Bangladesh, Pakistan, and India from Asia. The project is being co-ordinated by International Centre for Biosaline Agriculture, Dubai. In India the activities are being co-ordinated by Central Soil Salinity Research Institute, Karnal.

The main objectives of the project were (i) to contribute to the development of bio-saline agro-forestry systems for various saline environments (local/regional approach) and parallel to that; and (ii) to explore the potentials for biomass production in saline environments (globally).

Budget for the Central Soil Salinity Research Institute, Karnal, and Central Arid Zone Research Institute, Jodhpur is EURO 146,520 and the contribution of the institutes is in kind. The project is for 36 months from the date on which the Contract Preparation Forms are signed by all participants. Approval of this department for the participation of the above institutes has already been conveyed.

International potato genome project: It has been, in principle, decided that Central Potato Research Institute, Shimla will participate in the Potato Genome Sequencing Consortium as a partner for sequencing potato chromosome number 2. Financial support to the tune of Rs 888.4 millions will be provided in the XI Five-Year Plan to be launched by next year. By participating in this project India joins a large group of countries including groups from European Union (Ireland, UK and Austria), Brazil, China, New Zealand, Peru, Russia, Turkey and the USA to elucidate the complete sequence of the potato genome. As a member of the consortium India will have direct and immediate access to a wealth of sequence and supplementary data generated by the consortium. The data produced are set to revolutionize plant breeding techniques and open up new avenues to substantially improve potato quality both for nutritional and processing purposes. Further, the sequence will have a profound impact on food security by generating solutions for disease resistance and environmental stress, viz. drought. The project is being co-ordinated by the Netherlands. In this regard a consent letter has been sent at the level of Agriculture Minister to Minister of Agriculture, Nature and Food Quality, the Hague, the Netherlands.

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

The Central Agricultural University—established on 26th January, 1993 with its headquarter at Imphal under the Central Agricultural

University Act 1992 of Parliament (Act No. 40 of 1992)—is another autonomous body of DARE that has its jurisdiction over Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Sikkim and Tripura, and is wholly financed by Government of India. Like other Agricultural Universities, Central Agricultural University, Imphal has integrated programmes of teaching, research and extension education. Abide by its mandate, the University has established constituent colleges one each in the faculties of Agriculture, Fisheries, Home Sciences, Horticulture and Forestry, and Veterinary Sciences and Animal Husbandry. A college, in the faculty of Agricultural Engineering and Post-harvest Technology in Gangtok (Sikkim), has been established during current academic session. An interdisciplinary college of post-graduate studies at Umiam, Barapani (Meghalaya) is in the process of establishment.

At present, the University offers under-graduate programmes in Agriculture, Fisheries, Home Science, Horticulture and Forestry, and Veterinary Sciences and Animal Husbandry with intake capacity of 58, 22, 32, 43 and 37 respectively. Due to continuous and sincere efforts of teachers and students, majority of the student who passed out during 2006, qualified for admission to post-graduate courses and Junior Research Fellowship based on All India Entrance test conducted by the ICAR.

The post-graduate programmes are offered only in the faculty of Agriculture at the College of Agriculture, Imphal. With limited infrastructure and scientific man-power, the University has handled more than 40 Extramural and Intramural research projects besides teaching and extension commitments

In AICRP on mungbean, urdbean, lentil, lathyrus, *rajmash*, and pea (MULLaRP) crop, trials were conducted to identify high-yielding genotypes under local environment of Manipur. The highest-yielding genotypes of mungbean and urdbean during the year were RGM 34 (1,148.34 kg/ha) and NDU 05-19 (1,463 kg/ha), respectively. Genotype SRC 74 and RSJ 368 of *rajmash* were found highly susceptible to wilt during heavy rains. The research on integrated weed management in urdbean showed that the highest grain yield (2,333.33 kg/ha) days after sowing was found with the treatment of pendimethalin @ 0.75 kg/ha+HW40 days after sowing + normal seed rate. For lentil the genotype L 4680 (193 kg/ha) in IVT and PL 02 (393 kg/ha) were found to be promising under rainfed trials during *rabi* in 2005–06. However, the yield was very low due to the water stress conditions during the vegetative growth stage.

In crop production trials on field pea for spacing and date of sowing, the maximum grain yield was obtained with the treatment combination of Nov. 1 sowing with 15 cm row spacing during *rabi* 2005–06. Nutritional studies in PL 4 lentil variety, the treatment combination involving 5 tonne/ha farmyard manure + 40 kg/ha P₂ O₅ + PSB gave the maximum yield (814.3 kg/ha). As a part of



the integrated nutrient management trial on Sel 9 *rajmash*, the study revealed that the treatment combination involving 5 tonnes/ha farmyard manure + 120 kg/ha N + 20 kg/ha Zn gave the highest yield (954.3 kg/ha).

Trials on mustard genotypes showed that genotypes TCN 05-4 gave maximum yield (1,971.79 kg/ha) and maximum oil-content (41.33%) was obtained from genotypes TCN 05-7, whereas, in AVT 1 two genotypes, the maximum seed yields were recorded from MCH 05-54 (900.97 kg/ha) and MCN 65-05057 A (886.59 kg/ha) respectively.

Among groundnut genotypes, which were tested for their adaptation under local environment of Manipur, ISK 1-2005-8 (3,121 kg/ha pod and 2,287 kg/ha kernel), ISK 1-2005-13 (2,647 kg/ha pod and 1,889 kg/ha kernel) and ISK 1-2005-12 (2,557 kg/ha pod and 1,788 kg/ha kernel) were the 3 best for *kharif*.

During *rabi* 2005–06, in Advanced Varietal Trial (AVT), the test entry, TG 51 significantly out-yielded all the check varieties with 2,591 kg/ha of pod and 1,858 kg/ha of kernel yield. In Initial Varietal Trials (IVT), the entries, INS 2005-11 (3,165 kg/ha kernel) and INA 1-2005-4 (2,900 kg/ha pod and 2,119 kg/ha kernel) were found significantly over checks. Besides these, 2 recommended varieties, ICGS 44 and ICGS 76 received from ICRISAT, Hyderabad, were also evaluated for this region and found that the variety, ICGS 76 was the best both as pod (1,958 kg/ha) and kernel (1,230 kg/ha) yield for summer.

Under AICRP on Soybean, test varieties RKS 15 (1,203 kg/ha) and RKS 18 (1,516 kg/ha) exhibited better performance in grain yield, days to maturity and plant height over the checks. DSb 8 (3,071 kg/ha) and PS 1403 (2,205 kg/ha) were also found superior than the best check RAUS 5 (2,131 kg/ha) in IVT. Maximum seed yield was obtained with 0.3 million/ha plant population of genotype RKS 18. Determination of critical concentration of sulphur in soil for soybean was found to be 40 kg/ha. Maximum net return and B : C ratio were achieved after weed control treatment with Quizalofop ethyl @ 50 g ai/ha + Chlorimuron ethyl @ 9 g/ha as POE. Weed control efficiency at 30 and 60 days after sowing were maximum with polythene mulching (pre-emergence).

In AICRP on Rice improvement, it was observed that variety NK 3355 has the maximum yield performance (6.7 tonnes/ha) followed by MEPH 1 02 (6.5 tonnes/ha). Seven National Agricultural Technology Projects (NATP) on plant biodiversity, household food and nutritional security, castor for rearing eri-silkworm; Integrated Pest Management, major crops of rainfed ecosystem, performance of meat-type goat and indigenous technology for milling, drying and storage of rice were completed during the year. Under Technology Mission for Integrated Development of Horticulture, the work was mainly done on the

production of nucleus/basic seed/planting material in respect of citrus (orange), banana and passion fruit and imparting training to extension functionaries. Main research project from other funding agencies taken up during the year included quail farming in Mizoram (DBT), small indigenous fish for product development (Ministry of Food Processing Industries, Government of India), indigenous natural resource management (National Innovation Foundation), and nutritional values of *Bosmina tripurae* (DST).

Among internally funded project, 12 projects were completed at College of Veterinary Science on various aspects of animal health, production and public health; projects at College of Horticulture and Forestry, Pasighat, on oyster/mushroom production, organic vegetable cultivation, cabbage and tomato genotypes and pest-complex of brinjal and 1 project was completed at College of Fisheries, Lembucherra, on Taxonomy and Ecology of parasites associated with freshwater fishes in Agartala. During the year, the important extension education activities were demonstration, trainings, field trials, village adoption, field visits, interaction meet, participation in Agri-Expo and also the dissemination of information through newspaper, radio-talks and Television presentation and holding *Kisan Melas* under Horticulture Technology Mission. The University also arranged Seminars, Workshops and meetings of National and Regional levels. Interface meeting with the State Departments of all States in the region were also arranged for priority identification. Satellite Workshop of National Agricultural Innovation Project (NAIP) was organized on 23 September 2006.

The University organized 'Indian Agricultural University Association North-East Regional Conference 2006' on 5 and 6 October 2006 where 21 Vice-Chancellors and Directors of Deemed National Agricultural Research Institutes participated to deliberate different aspects of agricultural development in North-East.

PROTOCOL ACTIVITIES

Foreign delegations to India

- H E Mr Daview Katsonga, Minister of Foreign Affairs led a delegation of Ministers of Malawi and visited IARI, New Delhi on 10 May 2006.
- H E Mr Arefaine Berhe Gehbremedhin, Minister of Agriculture of Eritrea along with a 3-member delegation visited IARI, New Delhi on 14 June 2006.
- H E Prof. (Dr) Eng. Venancio Massingua, Minister of S&T, Republic of Mozambique led a 7-member delegation and visited IARI, New Delhi on 27 July 2006.
- Hon. Waithalea Mwangi, M P, led a 5-member delegation of the Agriculture, Lands and Natural Resources Committee of the Kenyan Palimament and visited IARI, New Delhi on 28 July 2006.



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- His Excellency, Dr Abera Deresa, State Minister of Agriculture and Rural Development, Ethiopia led a 6-member delegation and visited IARI/NBPGR, New Delhi, NDRI/CSSRI/IARI Regional Station, Karnal from 15 to 19 October 2006.

Delegations hosted in India

- Dr Mahmoud Ibrahim Al-Omeriy, Agricultural Research Centre, Egypt, visited Indian Agricultural Research Institute, New Delhi from 29 May to 10 June 2006, for study in the field of “Seed Technology” under Indo-Egypt Work Plan.
- Dr Mohamed Naguib Mohamed Eid, Agricultural Research Centre, Egypt, visited Central Marine Fisheries Research Institute, Cochin from 3 to 9 June 2006, and to Central Inland Fisheries Research Institute, Barrackpore from 10 to 17 June 2006, for study in the field of “Different Fish Farming Systems” under Indo-Egypt Work Plan.
- Dr Mahmoud Moneer Ali Ragheb, Head, Maize Research Department, Field Crops Research Institute, ARC, Egypt, visited Directorate of Maize Research, New Delhi from 4 to 13 September 2006, for studying “Maize Breeding” under ICAR-ARC, Egypt Work Plan for 2004–2005.
- Dr Mohammed Hussan Al-Masary, Deputy-Director, Horticulture, ARC, Egypt visited NRC for Medicinal and Aromatic Plants, Anand from 16 to 30 September 2006, for studying “Medicinal and Aromatic Plants-Production and Management” under ICAR–ARC, Egypt Work Plan for 2004–05.
- Mr M.S. Mirakhmedov (Senior Research Fellow) Uzbekistan and Mr M. Kim, Specialist both from Uzbek Scientific Research Institute of Cotton Seed Selection, Uzbekistan, and Mr S. Zokirov (Junior Research Fellow, Agriculture Sowing Republican Station for Seed-culturing and Seed-growing, Uzbekistan) visited Central Institute for Cotton Research, Nagpur from 26 to 29 October 2006, for studying “Cotton Growing” under the Work Plan.

Deputation of Indian Scientists

- Dr Nawab Ali [DDG (Agric. Engg.)], Dr Sushil Kumar (Director, NDRI, Karnal), Dr A.K. Singh (Director, IARI), and Dr S.N. Pandey, ADG (Hort.) visited Afghanistan from 23 to 28 April 2006, under the MoU between India and Afghanistan.
- Dr Mangala Rai (Secretary, DARE and Director-General, ICAR), visited Israel from 9 to 11 May 2006, as member of the delegation led by Agriculture Minister to participate in the ‘16th International Exhibition-Israel Agritech 2006’.
- Mrs Sushama Nath (Former Additional Secretary, DARE and Secretary, ICAR) visited USA for participation in meetings on Indo-US-Trade Policy Forum from 4 to 8 June 2006.
- Dr Mangala Rai (Secretary, DARE and Director-General, ICAR) led a delegation and visited USA for participation in the 3rd Board Meeting of the “Knowledge Initiative Board on Agriculture” from 5 to 7 June 2006. The other members of the delegation were Dr Mruthunjaya (National Director, NAIP, New Delhi); Dr C. Ramasamy, (Vice-Chancellor, TNAU, Chennai); Shri S. Sivakumar, (Chief Executive, Agri. Business, ITC Limited, Secunderabad), and Mr Feroze N. Masani (Masani Farm, Nasik).
- Dr Y.S. Ramakrishna (Director, CRIDA, Hyderabad) and Dr M.A. Khan (Head, Division of Integrated Land-Use Management and Farming System, CAZRI, Jodhpur) visited Niger from 15 to 29 June 2006, for preparation of a feasibility study/project report for co-operation between India and Niger in the field of agriculture development/research.
- Dr R.K. Mittal [Principal Scientist (Technical co-ordination), ICAR Headquarter, New Delhi], visited Tagbilaran City, Bohol, Philippines to attend the Special Senior Officials Meeting (SSOM) of the 27th Meeting of the ASEAN Ministers on Agriculture and Forestry (AMAF) from 28 to 31 August 2006.
- Dr N.K. Singh (Principal Scientist, NRC on Plant Biotechnology, IARI, New Delhi), and Dr Subhojit Datta, (Senior Scientist, Department of Biotechnology, IIPR, Kanpur) visited USA, and participated in the International Workshop on ‘Genomics Enable Improvement of Legumes’, organized by the University of California, from 29 August to 1 September 2006.
- Dr T.P. Rajendran [ADG (PP), ICAR, New Delhi], visited Beijing, China for participation in the India-China Joint Working Group Meeting (JWG) and to visit some farms/institutions of excellence from 11 to 12 September 2006.
- Dr S.N. Pandey [ADG (Hort.), ICAR, New Delhi], and Dr R. T. Patil (Director, CIPHRT, Ludhiana) visited Serbia and Montenegro from 25 to 30 September 2006, to make on the spot assessment to areas of co-operation in agriculture between India and Serbia and Montenegro.
- Dr V.J. Shivankar (Principal Scientist, NRC for Citrus, Nagpur) visited Agricultural Research Council, Egypt from 1 to 14 September 2006 for studying in “Controlling and greening of desert areas” under ICAR–ARC Work Plan 2004–2005.
- Dr K.V. Rajendran (Senior Scientist, CIFE, Mumbai) visited Australia from 30 April to 14 May 2006, on deputation as Fish Pathologist at CSIRO, Australia.
- Dr Pitam Chandra [ADG (Agric. Engg., ICAR)], visited for participation and presentation of Status papers in the International Seminar in Bangkok from 18 to 19 May 2006.



APPROVED DEPUTATION CASES FOR THE YEAR 2006

Dr. Suresh Walia, Pri. Scientist, IARI, New Delhi.	Training under INSA's International Scientific Collaboration & Exchange of Scientists Program with Foreign Academies Program in UK for 3 months from 20 March to 17 June 2006.	Local Living by Host Organization in U.K. 50% international by INSA and airfare Remaining 50% by candidate himself.
Dr. Sunil Kumar, Sr. Scientist, IGFRI, Jhansi.	Training Program on Agriculture and Environment Process and Practices in soil and water at CINADCO, Israel (8–29 Nov. 2005).	Local Living by MASHAV, Israel and travel cost by Scientist himself.
Dr. Uma Rao, Sr. Sci., IARI, Pusa, New Delhi.	DBT Biotechnology Overseas Associate ship (Short-term) 2004-05 award at the University of Leeds at UK from 6 th Jan–5 th June 2006.	By DBT
Dr. Rajender Kumar, Sr., Scientist, NRC on Equines, Hisar.	To attend training course on 'Molecular Diagnoses of Protozoa Diseases' at University of Agriculture & Veterinary Medicine, Obhiro, Hokkado, Japan from 10 th Jan. to 23 rd February, 2006.	University of Agri. & Veterinary Medicine, Obhiro, Japan.
Dr. B.P. Mohanty, Scientist (Sr. Scale), CICFRI, Barrackpore.	DBT Overseas Associating (short-term) 2004–2005 at University of Aberdeen, UK in January for six month.	DBT
Dr. A.R. Rao, Scientist (SS), IASRI, New Delhi.	For availing the (Long-term) Biotechnology Overseas Associateship 2004–05 award of the Cold Haiber Laboratory, USA for 12 months w.e.f. 28 th Feb., 06.	DBT
Dr. Anil Khar, Scientist (SS), NRC for Onion & Gaelic, Pune.	For availing the long-term DST BOYSCAST Fellowship Program 2005-2006 at University of Wisconsin, USA for 12 months before 31 st March 2006 & relieved from the Institute.	DST
Dr. A Dhali, Scientist, NRCV on Mithun, Jharnapani.	For availing the long-term DST BOYSCAST Fellowship Program 2005-2006 at Virginia, USA for 12 months before 31 st March & relieved from the Institute.	DST
Dr. Rajesh Kumar, Sr. Scientist, ICAR Res. Complex for NEH Region, Umiam, Meghalay.	To participate in the training program being held at (ICIHOD) Kathmandu, Nepal from 20 th Feb. to 1 st March 06.	ICIHOD
Dr. Lalan Kumar Sinha, Sr. Scientist, CIAE, Bhopal.	For undergoing study on Advance Twin Screw Extension Technology, Washington State University, USA for a period of one year w.e.f. 1 st week of March, 06.	Washington State University, USA.
Sh. Manoranjan Mohanty, Scientist, IISS, Bhopal.	Ph.D., Study in the field of "Simulation of Nitrogen Release from Organic Materials using APSIM in Soybean/Wheat Cropping System on Vertisols" at the University of Queensland, Brisbane, Australia for a period of three years w.e.f. July, 2006.	ACIAR Canberra, Australia.



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Dr.Sullip Kumar Majhi, Scientist, ICAR Res. Comp. for NEH Region.	For pursuing Ph.D. course at Tokyo University for Marine Science & Tech., Japan in the field of "Embryo Cry preservation of Highly Endangered Fish Species" for a period of 2 year w.e.f. 1/4/2006 to 31/3/22008.	Japanese Govt. Scholarship 2006.
Dr. M Elangovan, Scientist (SS) NRCS, Hyderabad	Training on 'Conservation Mgt. and use of plant genetic resources in Agriculture at IAC, Wageningen, The Netherlands from 8 th May to 16 th June 2006.	Netherlands Govt. Fellowship Program.
Dr. P.G. Padmaja, Scientist, NRCS, Hyderabad.	Training on 'Pest Mgt. & Food Safety' at IAC, Wageningen, the Netherlands from 29 th May to 23 rd June 2006.	Netherlands Govt. Fellowship Program.
Dr. S.K. Maiti, Sr. Sci., IVRI, Izatnagar.	Training on 'Effects of therapeutic gene delivery during bone & cartilage differentiation' at University of Lipzig, Germany for a period of 3 months w.e.f. 01.5.2006.	Local living cost by Host Institute in Germany, 50% Air fare by INSA & 50% Air fare by Scientist.
Dr. S. Mauria, A.D.G.(IPR&P), ICAR, Krishi Bhawan, N. Delhi	Training in the field of 'life Sciences' at Coonor (Tamil Nadu) and Ithace, New York (USA) during 16–21 July and 10–18 August 2006.	ICAR 'HRD' Training.
Dr. Sadhan Bag, Sr, Scientist IVRI, Izatnagar	For availing Long-Term training at Germany under DBT Biotechnology Overseas Associateship programme.	DBT
Dr. T.K.Bhattacharya Scientist(SS), IVRI, Izatnagar	For Availing training in Canada under DBT, Biotechnology Overseas Associateship Programme.	DBT
Dr. U.B.Chaudhary, Sr. Scientist CIRG, Makhdoom.	For attending 2-day training at M/S Coy Lab Products Inc., USA in Operation techniques of the Scientific equipment USA from 5 to 6 June 2006.	Organizers (M/S Coy).
Dr.C. Ramachandaran, Sci.,(SS)CMFRI, Cochin.	To attend refresher course for Asian Alumni on "Fisheries Management" Organized by IAC, Wapeainger, Philippines w.e.f. 14 to 26 June 06.	IAC, Wagenigen, the Netherlands.
Dr. Laxmilatha, Sr Sci, CMFRI, Cochin.	To attend refresher course for Asian Alumni on "Fisheries Management" Organized by IAC, Wapeainger, Philippines w.e.f. 14 to 26 June 06.	IAC, Wagenigen, the Netherlands.
Dr. Aniket Sanyal, Scientist, PD on FMD, Mukteswar.	For availing Biotechnology Overseas Associateship at CSIRO, Australia.	DBT
Mrs. Poonam Jayant Singh, Scientist (SS), NBFGR, Lucknow.	To participate in the World Intellectual Property Organization (WIPO) Summer School on Intellectual Property. Switzerland from 3–14 July 2006	NBFGR, Lucknow.



Dr. S.B. Barbuddhe, Scientist (SS) (Veterinary Public Health), ICAR Res. Complex for Goa.	To avail DBT Biotechnology Overseas Associate ship (Long-term) 2005-2006 in Germany.	DBT
Dr. Madan Mohan, Sr. Scientist, IVRI, Izatnagar.	To avail DBT Biotechnology Overseas Associate ship (Short-term in U.S.A.	DBT
Dr. (Mrs.) Sohini Dey, Scientist (SS), IVRI, Izatnagar.	To avail DBT Biotechnology Overseas Associate ship (Short-term in U.S.A.	DBT
Dr. Nirupma Dubey, Sr. Scientist, IARI, New Delhi.	To Undergo a training course on 'Carotenoid Detection' Organized by Chinese Academy of Agricultural Science (CAAS), China.	CAAS, China.
Dr. S.K.Nanda, Project Coordinator, AICRP on PHT, CIPHET, Ludhiana.	To attend training in the field of Life Sciences from 16–21 July and 10–18 August 06 respectively at Coonor (Tamil Nadu) and Ithaca in USA respectively.	All expenses by AICRIP, CIPHET, Ludhiana.
Dr. Pallab Choudhary, Sr. Sci., IVRI, Izatnagar.	To avail DBT Short-term training 2005-2006 in USA.	DBT
Dr Arjava Sharma, Pri. Sci., IVRI, Izatnagar.	To avail DBT Short-term training 2005-2006 in USA.	DBT
Dr. P. Jayakumar, Scientist (SS), CICR's Regional Station, Sirsa, Haryana.	To attend training course on 'Integrated Pest Management' Organized by EICA, Egypt.	EICA, Egypt.
Dr. Sewa Ram, Sr. Scientist, DWR, Karnal.	To attend Short-term training at Montana State University, Bozeman, USA for 3 months from Sept., 06 under DBT, Biotechnology Overseas Associateship Program.	DBT
Dr. S.K. Jha, Sr. Sci., NDRI, Karnal.	To Visit Humbolat University in the field of "Research Stays & Study visit for University Academic and Scientists for a period of 14 days w.e.f. 17-30 July 2006, Berlin, Germany.	DAAD, Germany.
Dr. Sumant Vyas, Sr. Sci., NRCC, Bikaner.	To avail the Post doctoral Fellow: Esterus Phermes, INRA, France for a period six months beginning from early Sept. 2006.	INRA, France.
Sh. S.K.Mathanker, Scientist (SS), CIAE, Bhopal.	For pursuing Ph.D at the Oklahoma State university, Stillwater, USA for a period of 3 years w.e.f. 9 th August 2006 to 8 th August 2009. USA	Oklahoma State University, USA
Sh. M.K. Singh, Scientist, CIAE, Bhopal.	For pursuing Ph.D. program at Shizuoka University, Johoku Hamamator, Japan for a period of 3 years w.e.f. 1.10.2006 to 30.9.2009, Japan	Shizuoka University, Japan.
Dr. N.K. Shivakumar Gowda, Sr. Sci., NIANP, Bangalore.	To avail DBT Biotech Overseas Associateship (Short-term) Program 2005–2006. USA.	DBT



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Dr. S. Kannappan, Scientist (SS), CIBA, Chennai.	To avail DBT Biotech Overseas Associate ship (Long-term) Program 2005-2006. USA.	DBT
Dr. K.P. Jithendran Sr. Scientist, CIBA, Chennai.	To avail DBT Biotech Overseas Associate ship (Short-term) program 2005-06, Japan	DBT
Dr. A.K. Singh, Sr. Sci., IARI, New Delhi.	To avail DBT Biotechnology Overseas Associate ship (Short-term) program 2005-2006. USA.	DBT
Dr. Mahender Singh Saharan, Sr. Sci., DWR, Karnal.	To Undergo training course on 'Detechon Techniques for Mycotoxins and Toxigenic fungi in the Food Chain, Italy.	MYCo-Globe (Organizers)
Dr. T.K. Behra, Sci., (S-3), IARI, New Delhi.	To avail DBT Biotechnology Overseas Associateship (long-term) Program 2005-06 at the University of Wisconsin, Madison, USA for 12 months from Sept., 06.	DBT
Dr. M. Vanaja, Sr. Sci., CRIDA, Hyderabad.	To avail Commonwealth Academic Staff Fellowship 2006 at the University of Essex, UK for a period of six months w.e.f. 2.10.06 to 1.4.07. UK	Commonwealth Fellowship Commission, UK.
Dr.(Mrs) R. Manimekalai, Scientist, CPCRI, Kasaragod.	To avail DBT Biotechnology Overseas Associateship (long-term) program 2005-06 at Japan.	DBT
Sh. Ranjan Bhattacharya, Scientist, VPKAS, Almora.	For pursuing Ph. D. Program at the School of Applied Sciences, University of Woverhamton, UK for a period of 3 years beginning Sept. 2006 under BORASSUS Project at UK.	University of Woverhampton, UK
Dr. O.P. Yadav, Pri. Sci., CAZRI, Jodhpur.	To avail DBT Biotechnology Overseas Associateship (short-term) in USA	DBT
Shri M. Gunasekharan, Scientist (S.G), CPCRI, Kasaragod.	To undergo training course on Kerala Coconut (WILT) in France from 25 th September to 18 th November 2006.	Organizers
Dr.(Mrs.) Shelly Praveen, Sr. Scientist, IARI, New Delhi.	To attend 3 months training under INSA's International Scientific Collaboration & Exchange of Scientists Program from 22.9.06 to 21.12.06. U.K.	INSA & Scientist concerned Jointly.
Dr Rajsekhar Rao Korada, Scientist (SS), CTCRI's Regl. Stn., Bhubaneshwr (Orissa)	To avail Long-term DBT Biotechnology Overseas Associateship, the Netherlands, 12 months from 25.3.2007.	DBT
Dr. Raveendra N. Gadag, Sr. Scientist, IARI, New Delhi.	To Undergo UGC's Sponsored Commonwealth Academic Staff Fellowship at the John Inne's Centre, Norwich, U.K. for a panel of six months from 2.10.06 to 01.04.2007.	Commonwealth Fellowship Commission UK



Dr. P. Das, Sr. Scientist, CIFA, Bhubaneswar.	For availing DBT's Biotechnology Overseas Associateship (Short-term) program 2005–06 on "Aquaculture and Marine Biotechnology" at Eventual & Genomics Sec., Deptt of Environ Pop Health, Tufts University, USA.	DBT.
Dr. Pious Thomas, Sr. Scientist, IIHR, Bangalore	For availing Biotechnology Overseas Associateship (short-term), 2005–06, in "Molecular Endophytic Microbiology" at Elinders University, Adelaide, Australia	DBT, New Delhi.
Dr. C.P. Balasubramanian, Sr. Scientist, CIBA, Chennai	For availing DBT Biotechnology Overseas Associateship (short-term), 2005–06 at California State University in USA for a period of 6 months from Feb., 2007.	DBT, New Delhi.
Dr. K.K. Vijayan, Head, PNP Div., CMFRI, Cochin	For availing Biotechnology Overseas Associateship (short-term), 05-06 in Belgium for a period of 5 months and 3 weeks from last week of March, 07.	DBT, New Delhi.
Dr. V.P. Chaudhary, Scientist, PDCSR, Modipuram	For attending training on "Research & Development of Agricultural Engineering Technologies" in Israel from 18-31 October, 2006	Local Living cost by Govt. of Israel 50% international air-fare by INSA & 50% international air fare by applicant himself

- Dr Rajeev Kumar Jain [Director (DARE)] visited Rome from 17 to 18 May 2006 for participation in meeting of the GFAR, in Rome, for finalization of GFAR Conference.
- Mrs Sushama Nath [Former Additional Secretary (DARE)/ Secretary, ICAR] visited Yemen from 23 to 24 June 2006 for participation in the Steering Committee Meeting of GFAR.
- Dr A.K. Singh (Sr Scientist, IARI, New Delhi) visited Madrid from 12 to 14 June 2006 for attending the Global Initiative for Plant Breeding Capacity Building Meeting.
- Dr A.K. Singh (Project Director, Water Technology Centre, IARI, New Delhi) visited Vienna from 12 to 15 June 2006 for assignment on behalf of IAEA, Vienna.
- Dr A.K. Jain [ADG (ARIS), ICAR], visited Thailand from 3 to 4 July 2006 for participation in the APAARI-GFAR-FAO Inter-Regional Workshop.
- Dr Ramesh Chand (Director, NCAP, New Delhi) visited Bangkok from 28 to 19 August 2006 for participation in the Workshop on 'Regional Synthesis of Research Needs'.
- Dr S.V. Subbaiah (Head, Directorate of Rice Research, Hyderabad) visited Fiji on deputation under ITEC Programme for 1 year w.e.f. July 2006.
- Dr O. M. Bambawall (Principal Scientist, NCIPM, New Delhi) visited Syria from 16 to 21 August 2006 for participation in the Travelling Workshop on 'IPM'.
- Dr K.K. Sharma (Senior Scientist, IARI, New Delhi) visited Korea from 14 to 16 August 2006 for attending Regional Workshop.
- Dr Pitam Chandra [ADG (Agric Engg.), ICAR] visited Bangkok on 7 August 2006 for participation in the International Seminar on 'Enhancing Export Competitiveness of Fruits'.
- Dr T. Mohapatra (Principal Scientist, NRC on Plant Biotechnology, IARI, New Delhi) participated in the SAARC Workshop on 'Propagating Plants' from 8 to 9 August 2006.
- Dr R.J. Rabindra (Project Director) and Dr B.S. Bhummanavar (Principal Scientist, Project Directorate of Biological Control, Bangalore) participated in the International Workshop on 'Management and Biological Control' from 12 to 15 September 2006.
- Dr D.M. Kamra (Principal Scientist, IVRI, Izatnagar) participated in IAEA Workshop on 'Alternative Feed Resources and Livestock Production' from 12 to 15 September 2006.
- Dr Mohan Josheph (Director, CMFRI, Cochin) participated in the NACA Lead Centre Meeting from 27 to 28 November 2006.
- Dr K.P.R. Vittal (Director, CRIDA, Hyderabad) participated in the Workshop on 'Agricultural Water Management' from 18



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to 22 September 2006.

- Dr V.K. Taneja [DDG (Animal Sciences), ICAR] participated in the International Assessment for Agricultural and Technology from 1 to 3 November 2006.
- Dr N, Sarangi (Director, CIFA, Bhubaneswar) visited Bangkok from 27 to 28 November 2006 for participation in the NACA Lead Centre Meeting.
- Dr Boby Ignatius (Scientist, CMFRI, Cochin) participated in the 4th Regional Group of Hatchery Training Course from

20 November to 6 December 2006.

- Dr M.M. Pandey (Director, CIAE, Bhopal) attended Technical Committee and Governing Council Meeting held from 20 to 24 November 2006.
- Dr K.M. Bujarbaruah (Director, ICAR Research Complex for NEH Region, Barapani) participated in the Workshop on Pig System in Asia from 23 to 24 November 2006.
- Dr P. Ravichandran (Principial Scientist, CIBA, Chennai) participated in the NACA/ACIAR meeting on 'BMP's'.