

*National Dialogue on*

**FARMER-LED INNOVATIONS TOWARDS PLANT  
VARIETY IMPROVEMENT, CONSERVATION  
AND PROTECTING FARMERS' RIGHTS**

**12-13 November 2006, New Delhi**

**HIGHLIGHTS AND RECOMMENDATIONS**



*Jointly Organized by*

**TRUST FOR ADVANCEMENT OF AGRICULTURAL SCIENCES  
&  
PROTECTION OF PLANT VARIETIES AND FARMERS' RIGHTS AUTHORITY  
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## **National Dialogue On**

### **Farmer-led Innovations Towards Plant Variety Improvement, Conservation and Protecting Farmers' Rights**

**12-13 November 2006, New Delhi**

### **Highlights and Recommendations**

A two-day national Dialogue on "Farmer-led Innovations towards Plant Variety Improvement and Conservation: Protecting Farmers' Rights, Geographic Indication, Appellation of Origin etc. in the National Context" was held on 12-13 November 2006 at the National Agricultural Science Centre Complex, New Delhi. It was jointly organized by the Trust for Advancement of Agricultural Sciences (TAAS) and Protection of Plant Varieties and Farmers' Rights Authority (PPV&FRA); and was co-sponsored by Agricultural and Processed Foods Export Development Authority (APEDA) and Asia-Pacific Association of Agricultural Research Institutions (APAARI). The participants represented included Government/Public sector agencies, ICAR, SAUs, international organizations, and other stakeholders representing academies, attorney firms, NGOs, private sector and farmers.

The focus of the Dialogue was on farmer-led innovations, their art and science of growing and managing crop agriculture, design of farm implements to reduce drudgery and increase farm efficiency and their contributions to value addition in agricultural produce. A specific focus in the Dialogue was given to IPR related national Acts/laws to understand the various dimensions of benefit-sharing requirements with the farmers to ensure continued innovations by the farming communities. A lack of understanding on protection of Farmers' Rights for their own varieties as well the requirement of programs to encourage other farmer-led innovations were the important areas of concern in the Dialogue.

The deliberations of the Dialogue were conducted in three technical sessions; their session-wise details and the recommendations emanating there of are presented here:

#### **Inaugural Session**

The inaugural session was chaired by Dr. R.S. Paroda, Chairman, TAAS and the Head, CGIAR Regional Program for Central Asia and the Caucasus, ICARDA, Tashkent, Uzbekistan. The opening remarks were delivered by Dr. S. Nagarajan, Chairperson, Protection of Plant Varieties and Farmers' Rights Authority (PPV&FRA) in India. Dr. Nagarajan explained the subject of farmers-led innovations, thereby setting the stage for detailed discussions on reward and recognition of vast contributions of farmers; a platform that has since been provided by the Govt. of India in the form of PPV&FRA. In chairman's remarks, Dr. Paroda highlighted the main objective of the TAAS of relating science to society. He emphasized on the requirements of a coordination mechanism for technologies generated in ICAR and SAUs for their efficient delivery to technology users keeping farmers as the central focus, and keeping farmers' varieties as a specific sub-set in the National Gene Bank. The need for perfection in data documentation was emphasized giving the example of documentation requirements in 'Basmati' rice issue while contesting the 'Basmati' patent case in the USA. Dr. Paroda expressed concern for effective and efficient germplasm exchange requirement so that crop

## Highlights and Recommendations

improvement researches, like in the past, could continue unhindered all over the world. The need for discussion with the private sector and developing modalities for faster development of improved and need-based crop varieties through result-oriented public-private partnerships was another issue highlighted in his Chairman's address. Dr. N.N. Singh, Vice-Chancellor, Birsa Agricultural University, Ranchi and Secretary, TAAS presented the vote of thanks, and stressed for developing a system for acknowledgement, valuation, enhancement, protection and benefit sharing with respect to innovations made by the farmers in national context.



*A view of Inaugural Session*

## **SESSION I: Farmer-led Plant Diversity Conservation - Case Studies**

The first technical session was chaired by Mr. K.S. Money, Chairman, APEDA with Dr. N.N. Singh as Co-chair. Seven presentations were made, namely : i) "Village Seed Banks - Banking seeds to secure livelihoods" - by Prof. V. Arunachalam, Distinguished Fellow, MS Swaminathan Research Foundation; ii) "The Case of "Navara" Rice of Kerala - How it was organized" - by Mr. P. Narayanan Unny, Navara Eco Farm, Kerala; iii) "Farmers' Varieties: Some case studies in cotton and rice" - by Prof. M.S. Malhi, PAU, Ludhiana; iv) "Farmer is also a plant breeder - The Crossandra experience" - by Mr. T. Venkatapathy Reddiar, Laxminarayana Tissue Culture Laboratory, Pondicherry; v) "Variation within Dasherri - Farmers' mango variety" - by Dr. S. Rajan, Central Institute for Sub-tropical Horticulture, Lucknow; vi) SAUs vision on Farmers' varieties and geographic indication by Dr. M.P. Yadav, Vice Chancellor, SVBP University of Agriculture and Technology, Meerut and vii) "Maintenance Breeding - A means to bring in homogeneity" - by Dr. S.S. Atwal, IARI Regional Station, Karnal.

**Dr. Arunachalam** highlighted the achievements of MSSRF in establishing community seed banks and thereby creating awareness among the farmers to safeguard and conserve local land races of crops grown by them. He stressed on participatory approach vis-à-vis role of farmers, scientists and other village-level civil societies in conserving and improving such valuable germplasm for farmers' benefit. Thus the concept of village seed bank was linked to food/livelihood security. He also elaborated on MSSRF's village knowledge center set-up, to educate farmers involving them in seed multiplication, and sorting, labeling of local varieties and their seed storage. He expressed concerns on policy issues and the need to develop mechanisms/agreements for providing benefits to farmers.

**Mr. Narayanan Unny** presented the work carried out by the Navara Eco-farm on Navara rice of Kerala-an old valuable land race endemic to this tract. How in 1989, its cultivation was started when HYVs were recommended in crop improvement programmes. The seed multiplication and purification was done in 2002-2003 and subsequently its organic production taken up in 2004. He narrated the use of traditional knowledge in improving this variety; efforts of Tamil Nadu Agricultural University Research Center in improving its quality and its evaluation carried out by KAU; the studies on DNA fingerprinting of Navara at Rajiv Gandhi Centre for Biotechnology to assess diversity. He stressed that such local initiatives be encouraged, recognized and supported at policy level for the benefit of farming communities.

**Dr. M.S. Malhi's** presentation mainly dealt with 'Bikaneri Narma Cotton', a farmer's variety', and its improvement, development and spread from Hanuman Nagar in Rajasthan to parts of Punjab, and release of several varieties by PAU. He stressed on the characterization and conservation of diversity generated / build up for the useful traits it possesses for cotton improvement under harsh agro-climatic conditions.

**Mr. P.V. Reddiar** emphasized on the local initiatives/farmers' innovations, such as of Crossandra cultivation initiated by him. He referred to the help received from MSSRF to improve this ornamental plant, providing requisite know-how to the farmers, even in imparting tissue culture technologies. He referred to the involvement of village community, women in particular in growing/managing cultivation of the varieties developed, and creating markets for them, thus providing better livelihoods.

**Dr. S. Rajan** elaborated on the role of farmers in build up of variation within 'Dasheri' - an old mango variety that originated in Murshidabad, in Uttar Pradesh and gradually spread, and how from seedling selections, around 1950s grafting was carried out to further improve this. Also, local exchange of grafted material took place, and farmers' experiences, knowledge and interest helped in these improvement efforts. He referred to germplasm evaluation, selection and development of clones for promising characteristics, carried out at the Central Institute for Subtropical Horticulture, Lucknow.



*A section of the audience*

**Dr. M.P. Yadav** spoke on SAUs' vision on 'Farmers Varieties and Geographic Indication.' He referred to some promising varieties developed by farmers in cereals, fruits, vegetables, etc and the promising traits these possess (such as the Kalanamak variety of rice), and the efforts put forth by the university in maintaining such varieties raised by farmers and their further use in crop improvement. He stressed that the farmers have contributed significantly and their efforts must be recognized; the role of the SAUs in identifying such farmers and documenting/registering the promising varieties held by them.

**Dr. S.S. Atwal** emphasized on the importance of maintenance breeding to attain high standards of seed purity, homogeneity and uniformity in the varieties released. He pointed out that the seed supplied does not meet the required standard; hence the need for quality seed production. This is also helpful in maintenance of varieties, meeting the criteria of DUS. He cited examples of diverse crops and the kind of material (self and cross pollinated crops, inbred lines, coordinated trials) and technology/methodology needed for quality seed production.

## **SESSION II: Farmers' Variety Protection - National and International Efforts**

Dr. Emile Frison, Director General, Bioversity International (Formerly IPGRI) was in chair. He delivered the Chairman's address on "International Treaty on Plant Genetic Resources for Food and Agriculture". Dr. S.K. Sharma, Director, NBPGR was the Co-Chair.

Dr. Emile Frison apprised on the development and emerging concerns on the International Treaty, ITPGRFA. He pointed out to the continuing (ongoing) need for germplasm in crop improvement and development of varieties, and exchange of such material between traditional farmers and breeders and the role

of the Treaty in facilitating this needful exchange. More than 50 countries have already ratified the Treaty, which focuses on conservation and sustainable use of PGR and in fair and equitable sharing of benefits in harmony with the Convention on Biological Diversity (CBD). He said that the major, important crop plants have been covered under the Treaty considering global food security and independence. At operational level, within the Treaty there is multilateral system and now the Standard Material Transfer Agreement (SMTA) facilitating exchange, access to germplasm between the supplier of germplasm and the user; the genebank/ supplier signs the contract/ the MTA, and it is the MTA which is the owner of this material. There are very low transaction costs, and the aim is that benefits must be shared by all stakeholders. He also referred to the concerns on farmers' rights and protection of traditional knowledge.

**Dr. S. P. Sharma**, Former Head, Division of Seed Science and Technology, IARI, in his presentation pointed out to the level of distinctness and uniformity needed under the set for the Farmers' Varieties (FVs) and the need to register these varieties. Referring to the promising attributes that these traditional varieties held (good taste, nutritional value, medicinal value, adaptability, pest and disease resistance), the need to encourage farmers to maintain such varieties and also to keep on their efforts in developing, selecting new varieties. He also desired to provide protection for grants which are distinct, associated with uniqueness not seen in the known varieties. He expressed concerns on the need for suitable package of practices, protocols/guidelines for growing and testing, and for establishing distinctness and uniformity of the FVs. Keeping in view their original characteristics, he stressed on the need to collect and characterize these valuable varieties, and the need to purify them to certain level of uniformity.

### **SESSION III: Site Specific Variety, Crops and their Reputation**

The session was chaired by Dr. R.S. Paroda and co-chaired by Dr. S. Nagarajan. Seven presentations were made: i) "Seed Spices of Rajasthan and Gujarat: Farm-level variation and covering them under the GI" - by Dr. B.B. Vashistha, Director, National Research Centre on Seed Spices, Rajasthan; ii) "Need for Registration of Farmers' Varieties" - by Prof. Anil Gupta, IIM, Ahmedabad; iii) "Farmer-developed cardamom - How to protect?" - by Mr. Sabu Varghese, farmer, Wonderkunnel, Kerala; iv) "What is there in wine that is not there in Basmati rice" - by Ms. Latha Nair, Attorney, K&S Partners; v) "The Darjeeling Tea and the GI experience" - by Ms. Punita Bhargav, Attorney, K&S Partners; vi) "Conservation of Farmers' Varieties in the National Gene Bank" - by Dr. S.K. Sharma, Director, NBPGR, New Delhi; and vii) "Geographical Indication - Is it a sovereign right or a multilateral agreement?" - by Dr. S. Mauria, Asstt. Director General (Intellectual Property Rights and Policy), ICAR.

**Dr. B.B. Vashistha's** presentation dealt with the 'Seed Spices of Rajasthan and Gujarat,' the major spices production region in north-eastern plains of India, contributing to about 80% of the total spices produced in the country. Further, India is also the largest consumer (consuming 90% of the seed spices, exporting barely 10%), but there is great potential for export. He described the research efforts over the past few decades which led to the build up of diversity and development of several promising varieties for increased production, having desired quality attributes, such as 'Kasuri methi' from specific area(s) of north-western plains, and Ajwain (with specific medicinal properties, aroma etc) such as from Orissa, and asserted that more study is required on these for their identity for Geographical Indication.

**Dr. Anil Gupta** spoke on the need for registration of the farmers-bred varieties. He expressed concern on the loss of farmers' varieties, which need to be protected/conserved and also further evaluated for their desirable characteristics, their maintenance and seed multiplication for distribution. He laid emphasis on creating opportunities for their marketing as well. Involvement of farmers and use of traditional knowledge they possess

and its documentation is necessary in this participatory effort. He also expressed his concern on patents, and policy issues. In this context, he stressed that crops which are strategic and for which diversity of landraces, unique types exist and is conserved in genebank need to be well characterized for their potential, industrial use, food processing, therapeutic, medicinal properties, value additions etc. He felt that the export of raw material be banned and only the value added products be exported.

**Mr. Sabu Varghese** of Wonderkunnel, Kerala talked about an outstanding variety of cardamom, the "Wonder Cardamom," developed by a farmer of Kerala and stressed on the need to give due recognition to such innovations by granting financial support and awards, besides, having the variety registered with PPV&FRA/NBPGR.

**Ms. Latha Nair** spoke on the TRIPs clauses, arguing on 'What is there in wine which is not in Basmati rice.' She referred to three provisions under the trade related aspects of IPR which is one of the agreements of WTO. In this, one provision refers to Geographic Indication. So it protects the names like 'Basmati', 'Darjeeling', 'Kanchipuram', 'Puchampati'. Article 22 provides basic definition of GI, and Article 23, on the additional level of protection granted to wines and spirits by WTO. She stressed on the extension of Article 23 for GI providing adequate protection.

**Ms. Punita Bhargav** specifically dealt with the case of Darjeeling tea relating to GI and legal protection required thereof, and at commercial level to build broad equity. She referred to promotional and educational campaigns worldwide in this context. The protection of the Darjeeling word and Logo mark, and registration made, certification required at source and the cautions to be met such as on labeling, guidelines for the logo marks and certification marks.

**Dr. S. K. Sharma** in his presentation on, 'Conservation of Farmers' Varieties in National Genebank', pointed out that we have so much of diversity in the farmers' varieties, and reasons for its richness mainly are the ecoclimatic conditions, agricultural ecosystems, biodiversity and rich ethnic/ cultural diversity. So all these factors lead to rich diversity in Farmers' Varieties and their conservation is needed to ensure farmers' rights. There is need to maintain the data base of all the conserved varieties and their registration in national genebank. Also he stressed on the need to have a safety duplicate storage of such valuable germplasm.

**Dr. S. Mauria** spoke on 'Geographical Indication: Is it a sovereign right of nation or a multilateral agreement?' He further elaborated on some of the points highlighted by Ms. Nair on the existing provisions. He referred to the Doha ministerial conference and the concerns of the developing countries regarding issues related to the extent of protection of GI, widening the ambit of GI on products other than wines and spirits. The Doha Declaration is a multilateral negotiation. GIs are protected in accordance with the national Acts of different countries under a wide range of concepts. He said that sovereignty is the exclusive right to exercise authority over a geographical region. Sovereignty rights provide the legal framework enabling the state to conduct the affairs in a legitimate manner, as per national policy provision. He pointed out that India and the EU have made joint efforts to strengthen GIs. He stressed on the need to develop rules for access and benefit sharing of Farmers' Varieties, the need to support local/village communities to conserve and use diversity in a sustainable manner and to document associated traditional knowledge.

## **Concluding remarks**

**Dr. R. S. Paroda** emphasized that the Dialogue has brought out several concerns at policy level on protecting farmers' rights, GIs, appellation of origin; safeguarding farmers' varieties, documenting these and the indigenous associated knowledge was necessary, as well as benefit sharing and rewarding the farmers. Follow up on these emerging issues will be required.

**Dr. S.K. Sharma** felt that there was need for a national seminar to discuss further on FVs, GIs and the role of SAUs with larger participation /involvement of farmers. Training of farmers , CSOs, NGOs , is necessary considering their increased role in the maintenance of diversity in this participatory approach and such efforts are being strengthened in National Agricultural Innovative Project (NAIP).

**Dr. S. Nagarajan** pointed out that the diverse presentations and discussion amply point out that the Indian farmer is a custodian of traditional knowledge, and a provider of innovations in different regions, and is now equally concerned on market trends and understands fully the need for producing modified/new products. He also felt that training was necessary for the farmers in the agricultural development and management aspects, marketing/agri-business and including policy issues. They need to have awareness for developing knowledge base through websites, videos etc. and efforts are required that farmers have such information/literature available in different languages. He also stressed on the need for a suitable coordinating mechanism, for the registration of Farmers' Varieties with NBPGR. Overall, farmers' recognition is important at all levels of agricultural development.



*Dr. S. Nagarajan receiving the Award*

## **SPECIAL SESSION: Presentation of INSA Silver Jubilee Commemorative Medal**

A special session was held with Dr. R.S. Paroda in the Chair in which Dr. S. Nagarajan delivered the Silver Jubilee Commemorative Lecture on "Farmers' Variety, Geographical Indication and PPV&FR Act". The exhaustive presentation took stock of the 2-days' deliberations and provided new insights into multifarious dimensions of the broad topic. The presentation was well received and generated lively discussion on many issues that are covered in the recommendations.

## **Recommendations**

The deliberations of the three sessions with 15 presentations, followed by discussions and the concluding remarks, highlighted on the importance of this Dialogue. These focused on the rich diversity in Farmers' Varieties and the coordinated efforts still needed to fully characterize, evaluate, document, register and conserve them in the national genebank at NBPGR. There is also need to tap indigenous knowledge and the farmers-led innovations; and make the farmers aware on maintenance aspect of diversity through training programmes. Further, policy advocacy needs to be streamlined in view of international developments, particularly in germplasm exchange, benefit sharing, implementation of MTA; uniqueness/ distinctness of varieties, products etc. in national domain and trade related aspects. In these efforts, the role of PPV&FRA, NBPGR and other authorities with desired institutional collaboration was stressed.

The following important recommendations emerged from the Dialogue:

### **I. Need to Accelerate the Pace of National Seed Regulatory Reforms**

- The uniqueness of Indian PPV&FR Act is that it also recognizes the rights of the farmers, besides also considering the issues of conservation and benefit sharing with respect to crop varieties. The PPV&FR Act, therefore, entrusts important responsibilities on the Authority created for the purpose.

- The many functions of the Authority are specific and include the task characterization and documentation of varieties registered under the Act; and also documentation, indexing and cataloguing of farmers' varieties. Detailed documentation on crop varieties, whether developed by scientist breeders or farmer breeders would, therefore, be desirable.
- The efforts should particularly aim for an impartial, technically competent, and efficient crop variety testing, validation and seed quality enforcement system that meets all necessary requirements. The efforts should particularly ensure that the additional tasks in no way lead to the dilution of the existing testing system but rather strengthens it further.

## **II. Importance of 'Extant' Crop Varieties as a Vital National Resource**

- Under Section 2(j) of the PPV&FR Act, 'extant variety' includes: i) varieties notified under the Seeds Act, 1966; ii) farmers' variety; iii) varieties about which there is common knowledge; and iv) any other variety which is under public domain. Under Section 2 (i) of the PPV&FR Act, 'essentially derived variety' is defined with respect to the 'initial variety'. In conjunction with other provisions referring to 'extant variety' and 'essentially derived variety' in the Act, it becomes clear that the set of 'extant' varieties as per the PPV&FR Act is a crucial national resource not only for augmenting crop productivity and production in the country but also from the point of view of honoring and implementing the chapters in the Act on "farmers' rights" and "benefit sharing".
- It is essential that the PPV&FR Authority gives high priority to this vital resource. The Indian Council of Agricultural Research is already taking care of publicly bred crop varieties through its National Bureau of Plant Genetic Resources (NBPGR).
- Awareness about the provisions and implementation of the PPV&FR Act among all key players in the private seed sector was considered equally important. It emerged that improved crop varieties from the private seed sector, that are in cultivation but have not been notified under the Seeds Act, 1966 can also be considered for registration as 'extant' varieties under the category of 'varieties in public domain' as per definition of 'extant variety' in the PPV&FR Act.

## **III. A National Program on Farmers' Varieties and Innovations Needed**

- The requirement of a national program for the recognition of farmers' varieties, including data verification, and appropriate rules for access and benefit sharing to honor farmers' rights is of utmost importance. For understanding of the true expression of characteristics of farmers' varieties, the requirement of their testing and validation in their natural areas of cultivation appeared to be a necessity.
- Farmers' varieties were found to be, in general, possessing economically important characteristics which have relevance to the trade. It was noted that a proposed directive on "conservation varieties", under consideration by the European Commission, has similarities with the case of farmers' varieties in the Indian PPV&FR Act. Accordingly, the concern that there is no program, policy or window of opportunity for the enormous crop variety diversity at the farmers' level was apparent. A consensus emerged for the development of an institutional mechanism for characterization, data generation and diffusion mechanism for the farmers' crop varieties as well as safe storage of seeds of these varieties in the National Gene Bank.
- In order to encourage farmer-led innovations, it was suggested that the PPV&FR Authority should institute special awards to recognize farmers, including women farmers, for their valuable contributions.

#### **IV. Urgency for the Accreditation of Laboratories and Institutions for Crop Variety Testing**

- Accredited institutions for field testing of Distinctness, Uniformity and Stability of new varieties, to be registered under the PPV&FR Act, have to be notified by the Authority as a matter of priority being a statutory task. It was also felt that the testing system being thought of must be critically viewed for its competence and efficiency and should build on existing system with required efficiency and reforms.
- The provision of 'Essentially Derived Varieties' in the PPV&FR Act necessitates testing of new varieties at the biochemical and molecular level. Thus, there will be need for accredited laboratories for this purpose as well.

#### **V. A System for Quality Saplings, Planting Materials and Organic Agriculture Needed**

- Currently, the importance of both 'seed' and 'rights' necessitates emphasis on availability of quality saplings and planting materials of horticultural crops, as also for other tissue-culture materials. Accordingly, the need for adhering to their quality standards and requirement for duly registered nurseries and other agencies for the purpose were highlighted. Likewise, standards and appropriate testing system for promotion of organic agriculture was felt as another priority for which notified laboratories for quality testing, both under public and private domain, were needed in the national interest.

#### **VI. Innovative Use of Various Legal IPR Tools for Economic Gains**

- Presentations by farmers on their innovations and new initiatives were appreciated by all the participants. It was clear that farmers need advisory services as well as other technical and financial support for taking their efforts to a logical conclusion.
- Each IPR-related Act has a specific role. In order to effectively harness from the diverse strengths of Indian agriculture, and the processes and products involved, it was considered imperative that different IPR-Acts be made use of considering the requirement of each case. For example, agriculture commodities which are important from the point of external trade need to be looked at through the provisions under Geographical Indications. Likewise, the Trade mark route can be fruitfully utilized in specific cases of indigenous agricultural commodities which enjoy specific demand elsewhere.
- A consensus emerged that these IPR tools can be of great utility in supporting the efforts of local and indigenous communities to conserve their biological diversity sustainably, and use biological resources and traditional knowledge. The innovative use of the tools and documentation system was highlighted to seek economic benefits from the traditional knowledge and resource base of the farmers, and also to prevent unauthorized commercial use by others.
- The immense role of NGOs and Farmers' Cooperatives for value-addition and acknowledgement of farmer-led innovations was specifically highlighted. The need to develop a national strategy for greater involvement of genuine NGOs and farmers' groups was felt so that they are able to play a constructive role in the development of agriculture and allied activities in the country and rights of farmers are protected.

#### **VII. Need for Continued Germplasm Exchange**

- Indian agriculture has gained tremendously by exchange of crops and their varieties in the past. Germplasm exchange (both import and export) will continue to remain the basis for unhindered crop

improvement work in future. The participants felt concerned about the difficulties in germplasm supply and receipt with the arrival of IPR-related acts. It was felt necessary that concerned organizations viz. Biological Diversity Authority, PPV&FR Authority, Ministry of Environment and Forests, Ministry of Agriculture and the Indian Council of Agricultural Research must jointly address this important issue and work out appropriate and efficient coordination mechanisms. In this context, the advisory and functional role of the National Bureau of Plant Genetic Resources was felt absolutely necessary especially after the ratification of the legally-binding International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), and now endorsement of the Standard Material Transfer Agreement (SMTA) by the Governing Board of the Treaty under overall umbrella of FAO.

### **VIII. Inter-Departmental Coordination Required for Reforms in the Indian Seed Sector**

- It was general consensus that we need to address on priority some of the tasks that require gearing up of the Indian seed sector such as: i) futuristic variety testing research; ii) services to international bodies like UPOV; iii) advisory services to other developing countries, iv) interface with TM, GI and Patent offices; v) interface with VCU testing system; vi) service towards honoring farmers' rights; vii) decisions on benefit sharing and compulsory licensing; viii) publication of plant varieties journal; ix) human resource development for scientific and technical aspects. Accordingly, it is critical that all relevant Departments should come together for a concrete action plan with deliverables to eliminate the difficulties of the Indian seed sector, such as, long drawn and much awaited revision of Indian Seed Act.

## **Acronyms**

APAARI	Asia-Pacific Association of Agricultural Research Institutions
APEDA	Agricultural and Processed Foods Export Development Authority
BAU	Birsa Agricultural University
CBD	Convention on Biological Diversity
CGIAR	Consultative Group on International Agricultural Research
CSOs	Civil Society Organizations
DNA	deoxyribonucleic acid
DUS	Distinctiveness, Uniformity and Stability
EU	European Union
FV	Farmers' Varieties
GI	Geographical Indication
HYVs	High Yielding Varieties
IARI	Indian Agricultural Research Institute
ICAR	Indian Council of Agricultural Research
ICARDA	International Centre for Agricultural Research in the Dry Areas
INSA	Indian National Science Academy
IPR	Intellectual Property Rights
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
KAU	Kerala Agricultural University
MSSRF	MS Swaminathan Research Foundation
MTA	Material Transfer Agreement
NAIP	National Agricultural Innovation Project
NBPGR	National Bureau of Plant Genetic Resources
NGOs	Non Governmental Organizations
NRC	National Research Centre
PAU	Punjab Agricultural University
PGR	Plant Genetic Resources
PPV&FRA	Protection of Plant Varieties and Farmers' Right Authority
SAUs	State Agricultural Universities
SMTA	Standard Material Transfer Agreement
SVBP	Sardar Vallabh Bhai Patel
TAAS	Trust for Advancement of Agricultural Sciences
TM	Trade Mark
TRIPS	Trade Related Aspects of Intellectual Property Rights
UPOV	International Union for the Protection of New Varieties of Plants
VCU	Value for Commercial Use
WTO	World Trade Organization

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## List of Participants

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*Highlights and Recommendations*

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**National Dialogue**  
**on**  
**Farmer-led Innovations towards Plant Variety Improvement,**  
**Conservation and Protecting Farmers' Rights**

Jointly organized by PPV & FRA and TAAS  
and Co-sponsored by APEDA and APAARI

Venue: National Academy of Agricultural Sciences, NASC Complex, New Delhi  
12-13 November, 2006

**Program**

**12 November, 2006**

- 09:00** : Registration
- 09:30** : Inaugural Session  
: Introductory Remarks: Dr. S. Nagarajan  
: Inaugural Address: Dr. R. S. Paroda  
: Vote of Thanks: Dr. N.N. Singh
- 10:30-11:30** : **Session I. Farmer-led Plant Diversity Conservation – Case Studies**  
*Chairman : Mr. K.S. Money, Chairman, APEDA*  
*Co-Chairman : Dr. N.N. Singh, Vice Chancellor, BAU, Ranchi*
- Village Seed Banks – Banking seeds to secure livelihood : Prof. V. Arunachalam, Distinguished Fellow & Technical Programme Advisor, MSSRF, Chennai, Tamil Nadu
  - The case of Navara rice of Kerala – How it was organized : Mr. P. Narayanan Unny, Navara Eco farm, Palakkad, Kerala
  - Bikaneri Narma cotton – A farmers' variety: Dr. M.S. Malhi, Head, Department of Plant Breeding, Genetics & Biotechnology, PAU, Ludhiana, Punjab
  - Farmer is also a plant breeder – The Crossandra experience: Mr. T. Venkatapathy Reddiar, Lakshminarayana Tissue Culture Lab, Valudavar (Via), Pondicherry
- 11:30-11:45** : **Tea break**
- 11:45-13:00** : **Session I continued**
- Variation within Dasherri – Farmers' mango variety: Dr. S. Rajan, Central Institute for Sub-tropical Horticulture, Lucknow, U.P.
  - To give SAUs vision on FV and GI: Dr. M. P. Yadav, Vice-Chancellor SVBP University of Agriculture & Technology, Meerut, U.P.
  - Maintenance breeding – A means to bring in homogeneity : Dr. S. S. Atwal, IARI Regional Station, Karnal and Sh. V. Sethia, Rice Exporter, Karnal, Haryana

**13:00-14:00 : Lunch Break**

**14:00-16:00 : Session II. Farmers' Variety Protection – National and International Efforts**

*Chairman : Dr. Emile Frison, Director General, Bioversity International*

*Co-Chairman : Dr. S.K. Sharma, Director, NBPGR, New Delhi*

- The International Treaty (ITP/GRFA), and the Global Action Plan :  
Dr. Emile Frison, Director General, Bioversity International
- Level of distinctness and uniformity needed for registration of farmers' variety under the Act : Dr. S. P. Sharma, Former Head, Division of Seed Technology, IARI, New Delhi

**16:00-16:30 : Tea**

**13 November, 2006**

**09:30-11:30 : Session III: Site Specific Variety, Crops and Their Reputation**

*Chairman : Dr. R.S. Paroda, Chairman, TAAS*

*Co-Chairman : Dr. S. Nagarajan, Chairperson, PPV&FRA*

- The Seed Spices of Rajasthan and Gujarat – Farm level variation and covering them under the : GI Dr. B.B Vashistha, Director, NRC on Seed Spices, Ajmer, Rajasthan
- Need for the registration of farmer-bred varieties : Prof. Anil K. Gupta, Centre for Management in Agriculture, IIM, Vastarapur, Ahmedabad
- Farmer developed cardamom – How to protect? : Mr. Sabu Varghese, Wonderkunnel, Idukki, Kerala
- The TRIPs clauses: What is there in wine that is not there in Basmati rice :  
Ms. Latha Nair, Attorney, New Delhi
- The Darjeeling tea and the GI experience : Ms. Punita Bhargav, Attorney, New Delhi

**11:30-11:40 : Tea Break**

**11:40-13:00 : Session III continued**

- Conservation of farmers' variety in the National Gene Bank : Dr. S.K. Sharma, Director, NBPGR, New Delhi
- GI - Is it a sovereign right of nation or a multilateral agreement? : Dr. S. Mauria, ADG (IPR), ICAR, New Delhi

**13:00-14:00 : Lunch Break**

**14:30-17:00 : Presentation of INSA Silver Jubilee Commemorative Medal Ceremony**

*Chief Guest : Dr. R.S. Paroda, Chairman, TAAS*

*Speaker: Dr. S. Nagarajan, Chairperson, PPV&FRA*

*INSA Representative: Dr. Rajendra Parsad*

- Reading of Citation by Dr. Rajendra Parsad
- Silver Jubilee Commemorative Lecture on Farmers' Variety, Geographical Indication and PPV&FR Act by Dr. S. Nagarajan
- Presentation of Medal by Dr. R.S. Paroda
- Chairman's Remarks

**17:00 : Tea**

