

ANNUAL REPORT 2009-10

PROTECTION OF PLANT VARIETIES & FARMERS' RIGHTS AUTHORITY Department of Agriculture & Cooperation Ministry of Agriculture Government of India

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EXECUTIVE SUMMARY

In the midst of global developments and given India's obligation to comply with the World Trade Organization regulations related to IPR, the Indian Parliament passed the "Protection of Plant Varieties and Farmers' Rights Act, 2001" for which rules were drafted in 2003. For the purpose of this Act, in exercise of the power conferred under sub-section (1) of the Section 3, the Central Government vide Gazette notification No. S.O. 1589 (E) dated 11th November, 2005 established the "Protection of Plant Varieties and Farmers' Rights Authority". The PPV&FR Act is unique in the sense that it besides taking into account the interests and rights of breeders and researchers also ensures the protection of rights of the farmers. This has been ensured keeping in view the fact that millions of Indian farmers rely mutually on each other for procuring or exchanging seed material. Farmer to farmer seed exchange is a traditional practice in this country and farmers supply as much as 80-85% of the total orthodox seeds sown in the country. This had therefore necessitated the need to take into consideration the interests and rights of small farmers to save and use their seeds and it was because of this guiding principle that a *sui* generis mechanism was put in position. Some of the important achievements and progress of works of the PPV&FR Authority during the year 2009-10 are highlighted here in the ensuing pages.

During 2009-10, a total of 568 applications concerning 21 notified crop species were filed with the PPV&FR Authority for registration. Out of these, 227 were filed under the category of New varieties for crops like Cotton, Rice, Maize, Sorghum, Pearl millet, Pigeon pea, Mung bean, Bread wheat, Jute and Sugarcane.

Besides during this period the PPV&FR Authority also issued the certificates of registration for two new varieties of Bread wheat to the Maharashtra Hybrid Seed Company (Mahyco) for which applications had been received earlier. Under the category of extant varieties, 297 applications from private and public sector applicants were received for registration. After satisfactorily completing the procedural details, out of these registration certificates to 123 extant varieties covering 11 crop species were issued. Under the category of Farmers' varieties a total of 44 applications were received out of which 3 traditional Farmers' varieties of rice viz. Indrasan, Hansraj and Tilak Chandan were granted registration. By doing so India became the first country in the world to have granted registration to Farmers' varieties.

The PPV&FR Authority released Rs. 20.22 lakhs for organizing more than forty awareness programmes through KVKs, ICAR Institutions, SAUs, and NGOs etc. during the year 2009-10. It was felt that the awareness among the farmers regarding the provisions of the Act is still not to the extent where they can understand the need of the registration of the traditional Farmers' varieties. Whereas, the PPV&FR Rules,2003 provided for a limit of three years time from the date of notification of any species, for the registration of all extant varieties, but considering the low response for the registration of Farmers' varieties, this time limit was

enhanced to 05 years to provide for an opportunity to the farmers' and farming communities to get their traditional varieties registered.

DUS Test guidelines of 27 crop species were finalized and published in the Plant Variety Journal of India and 3 crop species namely sugarcane (*Saccharum spp.*), ginger (*Zingiber officinalis*) and turmeric (*Curcuma longa*) were gazette notified for plant variety registration purposes. The matter of gazette notification of 24 crop species inviting applications for registration is under process with the Ministry of Agriculture.

The Authority is maintaining 42 DUS Test Centres across the country and released a sum of Rs. 148.25 lakhs for carrying out the mandate works of maintenance breeding, generation of database, conduct of DUS Test and multiplication of reference/example varieties. These DUS Test Centres evaluated 123 varieties of different crop species for distinctiveness, uniformity and stability during Kharif and Rabi seasons of 2009-10.

The Authority has taken pro-active steps for registration of horticultural crops, forest trees, medicinal plants and plantation crops. Development of DUS descriptors for a number of crop species namely Eucalyptus (Eucalyptus sp.), Casuarina (casuarina equisetifolia and C. junghuhniana), Coriander (Coriandrum sativum), Periwinkle (Catharanthus roseus), Isabgol (Plantago ovata), Aromatic Rose (Rosa damascena), Orchids (Species of Cymbidium, Dendrobium and Vanda), Brahmi (Bacopa monnieri), Menthol Mint (Mentha arvensis), Ashwagandha (Withania somnifera), Coconut (Cocos nucifera), Cassava (Manihot esculenta), Sweet potato (Ipomea batatas), Cashew (Anacardium occidentale) and Rubber (Hevea brasilliensis) are at the advance stage of development. Number of projects for finalizing and validation of DUS test guidelines of crops of commercial importance viz. Apple (Malus pumila), Pear (Pyrus communis), Almond (Prunus dulcis), Walnut (Juglans regia), Cherry (Prunus sp.), Apricot (Prunus armeniaca), Acid Lime (Citrus aurantifolia), Mandrarin Orange (Citrus reticulata), Sweet Orange (Citrus sinensis), Banana (Musa paradisiaca), Litchi (Litchi chinesis), Guava (Psidium guajava), Bamboo (Bambusa tulda and Dendrocalamus hamiltonii), Himalayan cedar or Deodar (Cedrus deodara), Himalayan Long Leaved Pine or Chir (Pinus roxburghii), Bottle gourd (Lagenaria sinceraria), Bitter gourd (Momordica charantia), Cucumber (Cucumis sativus), Pumpkin (Cucurbita moschata), Pointed gourd (*Trichosanthes dioca*), are also under progress. The guidelines for the above referred crops are expected to be completed in the next 2-3 years.

The National Register of Plant Varieties being maintained at the Head Office of the Registry, has been updated with the details of two New, three Farmers' varieties and one hundred and sixty three Extant varieties notified under Section 5 of Seeds Act, 1966 which were registered during 2009-10.

The PPV&FR Authority had constituted a Task Force chaired by Dr M. P. Nayar, Ex. Director (Botanical Survey of India, Kolkata), that identified 22 hotspots in different agro-

ecological regions. The report of the Task Force published in the form of book in two volumes was released by Sh. Jairam Ramesh, Hon'ble Minister of State (Environment and Forests), Govt of India, in a function at M S Swaminathan Research Foundation, Chennai, on August 19, 2009. This two volume treatise will serve as an important reference in augmenting sovereign rights over indigenous Agro-biodiversity. A manual on "Guidelines for Storage and Maintenance of Registered Plant Varieties in the National Gene Bank" and DUS Test Guidelines for 11 oil seeds and 10 horticultural crops species were released in a function organised by PPV&FRA on 21 December 2009. The guidelines and procedures for conferring the 'Plant Genome Savior Community Award' from 2009-10 onwards, which will comprise of maximum of five awards of Rs. 10.00 Lakhs each were finalized and approved. These Awards shall be conferred from the funds available in the National Gene Fund.

Three meetings of the Authority were held at periodic intervals and decisions regarding important matters such as framing of rules for the newly created posts, approval of Plant Genome Savior Community Award, Medical coverage of the employees, construction of New PPV&FRA Campus and establishment of the regional offices of the Authority were taken. The Scientific Advisory Committee, Programme, Planning and Policy Committee, Project Appraisal Committee and Extant Variety Recommendation Committee were duly constituted with a view to assist the Authority on technical, administrative and legal matters.

During the period the following 6 Gazette notifications were issued:

- (i) DUS criteria for Common Knowledge Varieties and Farmers' Varieties (Gazette notification no. G.S.R. 452(E) dated 29th June, 2009)
- (ii) Annual fee (Gazette notification no. S.O. 2182(E). dated 26th August, 2009)
- (iii) Fees for registration of new variety and extant variety about which there is common knowledge (Gazette notification no. G.S.R. 319 (E) dated 11th May, 2009 and published in the Gazette of India on 13th May, 2009)
- (iv) Extension of time for registration of Farmers' variety from 3 years to 5 years (Gazette notification no. G.S.R. 783 (E) dated 27th October, 2009)
- (v) Crop notifications of Sugarcane, Ginger and Turmeric under section 29(2) for registration (Gazette notification no. S.O. 1874 (E) dated 27th July, 2009)
- (vi) Nomination of new members of the PPV and FR Authority (S.O. 3064 (E) dated 30th November, 2009).

The legal cell is rendering legal advise and inputs to proceedings before the Authority and the Registrar, advise on international treaties and legal opinions on various issues, defending cases in the different courts, replies to information sought under RTI Act and interpretation and implementation of PPV&FR Act, 2001 and PPV& FR Rules, 2003.

An official delegation led by Dr S Nagarajan, Chairperson, PPV&FRA visited several DUS test sites, Research Centres, Seed Certification Centres, Co-operatives in US and US PTO during 23rd August - 05th September, 2009. Several important issues like DUS test procedures in vegetable(s), commercial species (Cotton) and other crops were discussed. The delegation also participated in three day training programme conducted at Global Intellectual Property Academy (US Patent and Trademark Office), Alexandria. Dr. Manoj Srivastava, Registrar (Horticulture) as a member of Indian delegation participated in the Second World Seed Conference organised at Rome (Italy) during 8-10 September, 2009. Some of the important issues discussed were providing food security through conservation, plant genetic resource availability multi system of access and benefit sharing, importance of seed quality determination and international seed trade.

The total budget outlay of the PPV&FR Authority during 2009-10 was Rs. 653.33 lakhs which included brought forward amount of Rs. 117.33 Lakhs from the previous year. The Authority utilized the funds for various components like recurring and non-recurring expenditures, strengthening of DUS test centers, developing test guidelines of crops, establishment of field gene banks, awareness programmes, consultancies etc. During the period under report, the Authority utilized a sum of Rs. 638.39 Lakhs under various heads for carrying out different activities for achieving the mandated targets. A sum of Rs. 23.23 Lakhs was collected under different heads such as application fees, annual fees, subscription fees and others.

PROTECTION OF PLANT VARIETIES AND FARMERS' RIGHTS AUTHORITY ANNUAL REPORT 2009-10

1. INTRODUCTION

With a view to provide for the establishment of an effective system for protection of plant varieties, the rights of the farmers and plant breeders and to encourage the development of new varieties the Govt. of India enacted the Protection of Plant Varieties and Farmers' Right Act 2001 (PPV&FR Act 2001). Thereafter for the purpose of this Act, the Govt. of India in exercise of the powers conferred by the sub-section (1) of the section 3 of this Act, established an Authority to be known as Protection of Plant Varieties & Farmers' Right Authority. The Authority is a body corporate by the name of aforesaid having succession and a common seal with power to acquire, hold and dispose of properties, both moveable and inmoveable and to contract and shall by the said name sue and be sued. The Authority has since been functioning from the allotted premises in the NASC Complex, New Delhi.

The Act follows "sui generis" approach and is unique in the sense that it confers three concurrent rights - to breeders, to farmers and to researchers. When it comes to Farmers' Rights, the Act recognizes the farmer as cultivator, conserver and breeder. The Act establishes several rights for farmers, of which the most important in this regard are the right to acquire seeds and the right to compensation for crop failure. India is the only country so far where a law has been passed establishing and securing Farmers' Rights to this extent.

In addition the PPV&FR Act gives an exclusive right on the breeders or his successors, his agent or licensee, to produce, sell, market, distribute, import or export the variety. The breeder enjoys provisional protection of his variety against any abusive act committed by any third party during the period between filing of application for registration and decision taken by Authority. The PPV&FR Act gives rights to researcher for using of any variety registered under this Act for conducting experiment or research. The Act also gives rights for the use of a variety by any person as an initial source of variety for the purpose of creating other varieties, however for repeated use of such variety as parental line, the authorization of the breeder of a registered variety is necessary.

The PPV&FR Act, 2001, provides a comprehensive and effective system of protection of plant varieties (except micro organisms) following the broad principles of Distinctiveness, Uniformity and Stability, the rights of plant breeders and the rights of the farmers in respect of their contribution made at any time in conserving, improving and making available plant genetic resources for the development of new plant varieties. The Act aims to stimulate investment for research and development to produce new plant varieties. Such protection is also likely to facilitate the growth of the seed industry that will ensure the availability of high quality seeds and planting material to the farmers.

The PPV&FR Authority is presently functioning from the NASC Complex, DPS Marg, New Delhi. The Authority consists of the Chairperson and fifteen members as below. The list of present incumbents is at Annexure-I.

- the Agricultural Commissioner , Government of India, Department of Agriculture and Co-operation, New Delhi, ex-officio;
- the Deputy Director General in charge of Crops Sciences, Indian Council of Agricultural Research, New Delhi, ex-officio;
- the Joint Secretary incharge of Seeds, Govt. of India, Department of Agriculture and Co-operation, New Delhi, ex-officio;
- the Horticulture Commissioner, Government of India, Department of Agriculture and Co-operation, New Delhi, ex-officio;
- the Director, National Bureau of Plant Genetic Resources, New Delhi, ex-officio;
- one member not below the rank of Joint Secretary to the Government of India, to represent the Department of Bio-technology, Government of India, ex-officio;
- one member not below the rank of Joint Secretary to the Government of India, to represent the Ministry of Environment and Forests, Government of India, ex-officio;
- one member not below the rank of Joint Secretary to the Government of India, to represent the Ministry of Law, Justice and Company Affairs, Government of India, ex-officio;
- one representative from a National or State level farmers' organisation to be nominated by the Central Government;
- one representative from a tribal organisation to be nominated by the Central Government;
- one representative from the seed industry to be nominated by the Central Government;
- one representative from an agricultural University to be nominated by the Central Government;
- one representative from a National or State level women's organisation associated with agricultural activities to be nominated by the Central Government; and
- two representatives of State Governments on rotation basis to be nominated by the Central Government.

The Registrar-General shall be the ex-officio member-secretary of the Authority.

The PPV&FR Authority has constituted Scientific Advisory Committee; Project Appraisal Committee and Programme, Planning and Policy Committee with a view to assist the Authority on technical, administrative and legal matters (Annexure 5).

An Extant Variety Recommendation Committee (EVRC) with seven members has been constituted as per Regulation 6 of PPV&FRA Regulations 2006. The EVRC meets frequently to examine the extant variety (notified under Section 5 of Seed Act, 1966) applications in detail and from all angles and advice the Registrar on the related issues.

As per section 45 sub section 2(c) read with rule 70 sub rule 2(a) provisions has been made to support and reward farmers, communities of farmers particularly the tribal and rural communities engaged in conservation, improvement and preservation of genetic resources of economic plants and their wild relatives, particularly in areas identified as agro-biodiversity hot spots.

With a view to operationalise its provision a Working Group for Community Agro-Biodiversity Conservation Award was constituted under the chairpersonship of Dr. (Mrs.) Manju Sharma, Former Secretary,Gol, Department of Biotechnology with the members from Central Government Ministries, ICAR institutions, SAUs, NGOs etc. The Working Group recommended for the 'Plant Genome Savior Community Awards' to be initiated from the financial year 2009-10.

The PPV&FR Authority established various DUS Test centres across the country under the "Central Sector Scheme for Protection of Plant Varieties & Farmers' Rights Authority" for maintenance breeding, multiplication of reference/example varieties of the crops which have been notified in the Gazette of India for registration, generation of database for DUS descriptors as per DUS guidelines of PPV&FRA and update "Indian Information System as per DUS Guidelines" IINDUS 8.0 database. In addition, DUS tests for the candidate varieties are conducted at the DUS test centres, data recorded as per the DUS test guidelines and forwarded to the PPV&FR Authority for further necessary action. The National Bureau of Plant Genetic Resources (NBPGR) created a computer database of reference/example varieties for the notified crops which is now being regularly updated by the PPV&FR Authority. The Software "Indian Information System as per DUS Guidelines" (IINDUS) and "Notified and Released Varieties of India" (NORV) for the documentation of the extant / notified varieties were developed by PPV&FR Authority through outsourcing the work to NBPGR and M/s Birla Soft India Private Limited in the form of IINDUS VERSION 08.1 which has an added advantage of processing of application forms.



The important functions of the Authority are depicted in the Functionogram

2. PROGRESS OF PLANT VARIETIES REGISTRY

2.1 Notification of Crop Species

DUS test guidelines of 27 crop species were published in the Plant Variety Journal of India out of which 03 crop species namely Sugarcane, Ginger and Turmeric were notified in the Gazette of India vide Notification No. S.O. 1874 (E) during the year 2009-10 (Table 1).

Table 1. Crop species notified during 2009-10

| S. No. | Common Name Hindi/Local Name | | Botanical Name | |
|--------|------------------------------|-------|---------------------------|--|
| 1. | Sugarcane | Ganna | Saccharum L. | |
| 2. | Ginger | Adrak | Zingiber officinale Rosc. | |
| 3. | Turmeric | Haldi | Curcuma longa L. | |

In addition to 03 crop species which were notified during the year 2009-10, the proposal for notification of following 24 crop species (Table 2) has been sent to the Ministry of Agriculture after which the Authority will start receiving the applications.

| S. No. | Common Name | Hindi/Local Name | Botanical Name |
|--------|--------------------|---------------------|---------------------------------|
| 1. | Black Pepper | Kali Mirch | Piper nigrum L. |
| 2. | Small Cardamom | Choti Elaichi | Elettaria cardamomum Maton |
| 3. | Indian Mustard | Sarso | Brassica juncea L. Czern & Coss |
| 4. | | Karan Rai | Brassica carinata A Braun |
| 5. | Rapeseed | Toria | Brassica rapa L. |
| 6. | | Gobhi Sarson | Brassica napus L. |
| 7. | Sunflower | Surya Mukhi | Helianthus annuus L. |
| 8. | Safflower | Kusumbha | Carthamus tinctorius L. |
| 9. | Castor | Arandi | Ricinus communis L. |
| 10. | Sesame | Til | Sesamum indicum L. |
| 11. | Linseed | Alsi | Linum usitatissimum L. |
| 12. | Groundnut | Moongphali | Arachis hypogaea L. |
| 13. | Soybean | Soybean | Glycine max (L.) Merrill |
| 14. | Rose | Gulab | Rosa spp. L. |
| 15. | Potato | Aaloo/Alu | Solanum tuberosum L. |
| 16. | Brinjal / Eggplant | Baigan | Solanum melongena L. |

Table 2. Gazette Notification of crop species under process with the Ministry

| S. No. | Common Name | Hindi/Local Name | Botanical Name |
|--------|---------------------|---------------------|--|
| 17. | Tomato | Tamatar | Lycopersicon lycopersicum (L.) Karsten ex. Farw. |
| 18. | Okra /Lady's Finger | Bhindi | Abelmoschus esculentus L. Moench. |
| 19. | Cauliflower | Phool Gobhi | Brassica oleracea L var. botrytis. |
| 20. | Cabbage | Patta Gobhi | Brassica oleracea L. var. capitata |
| 21. | Onion | Pyaz | Allium cepa L. |
| 22. | Garlic | Lehsun | Allium sativum L. |
| 23. | Chrysanthemum | Gauldaudi | Chrysanthemum |
| 24. | Mango | Aam | Mangifera indica L. |

2.2 Application Received and Examined

During 2009-10, a total of 568 applications (Table 3) were filed with PPV & FR Authority for registration of varieties of different crops, out of which 227 were for new varieties, 297 for extant varieties and 44 for Farmers' varieties. The PPV & FR Authority received applications for registration of plant varieties for crops belonging to four plant families viz. **Poaceae** (Bread wheat, Rice, Pearl millet, Maize, Sorghum and Sugarcane), **Fabaceae** (Chickpea, Pigeon pea, Green gram, Black gram, Lentil, Kidney bean, Field pea), **Malvaceae** {Cotton (4 species)} and **Tiliaceae** {Jute (2 species)}.

The maximum numbers of applications (266) were received for species belonging to family **Poaceae** which covers major food crops of the world, 259 applications of species belonging to **family Malvaceae** were received followed by **familes Fabaceae** (38) and **Tiliaceae** (5).

| | | Number of Applications Received | | | | |
|--------|--------------------------|---------------------------------|--------|----------|-------|--|
| S. No. | Crops | New | Extant | Farmers' | Total | |
| 1. | Rice | 41 | 24 | 33 | 98 | |
| 2. | Maize | 33 | 21 | - | 54 | |
| 3. | Bread Wheat | 2 | 2 | 6 | 10 | |
| 4. | Pigeon pea (Tur / Arhar) | 11 | 2 | 2 | 15 | |
| 5. | Pearl millet (Bajra) | 18 | 26 | - | 44 | |
| 6. | Sorghum (Jowar) | 27 | 30 | 1 | 58 | |
| 7. | Chickpea (Bengal gram) | - | - | 1 | 1 | |
| 8. | Garden pea (Field pea) | - | 1 | - | 1 | |
| 9. | French bean (Rajmash) | - | 2 | 1 | 3 | |
| 10. | Lentil (Masoor) | - | 2 | - | 2 | |
| 11. | Black gram (Urd bean) | - | 3 | - | 3 | |

Table 3. Applications for registration of plant varieties received during 2009-10

| | | Number of Applications Received | | | | | |
|--------|------------------------|---------------------------------|--------|----------|-------|--|--|
| S. No. | Crops | New | Extant | Farmers' | Total | | |
| 12. | Green gram (Mung bean) | 4 | 9 | - | 13 | | |
| 13. | Cotton (four species) | 87 | 172 | - | 259 | | |
| 14. | Jute | 2 | 3 | - | 5 | | |
| 15. | Sugarcane | 2 | - | - | 2 | | |
| | Total | 227 | 297 | 44 | 568 | | |



2.2.1 New Varieties

In all, 227 applications were received under the category of new varieties. The number of applications received were highest in case of cotton (87), followed by rice (41) and maize (33). No applications for registration of new varieties of Chickpea, Garden pea / Field pea, French bean / Kidney bean, Lentil and Black gram were received.

The applications filed under the category of new variety were examined for the required information. Applicants of the candidate variety fulfilling all requirements were asked to submit the prescribed fees and specified quantity of seed material as published in the specific DUS test guideline of the Authority.

2.2.2 Extant Varieties

There are three categories of extant variety namely i) those notified under the Seed Act 1966 and have not completed 15 or 18 years (in case of tree and vines) period ii) Variety of Common Knowledge and iii) Farmers' Variety for which applications are being accepted for registration.

In total, 297 applications were received for registration of extant varieties. In accordance with the Regulations 6 of the Protection of Plant Varieties and Farmers' Rights Regulations,

2006 framed under the Act, the Authority constituted an Extant Variety Recommendation Committee (EVRC) to advice the Registrar on the suitability of these varieties for registration, based on certain norms.

2.2.3 Recommendations of the EVRC

PPV&FR Authority had constituted a seven member Extant Varieties Recommendation Committee (EVRC) under the Chairmanship of Dr. R.B. Singh, Ex Member, National Commission for Farmers (NCF) to examine and recommend the extant varieties notified under the Seeds Act, 1966 for registration. During the financial year, the EVRC held four meetings on 20/05/09, 30/06/09, 10/08/09 and 15/01/2010 to consider different cases put up before it for consideration. 94 applications of extant varieties (notified under Seed Act) concerning eighteen crop species were put to the EVRC for their consideration out of which 92 applications (24 in Bread wheat, 06 in Rice, 02 in Maize, 07 in Sorghum, 04 in Pigeon pea, 18 in Chickpea, 07 in Field pea, 02 in French bean, 04 in Lentil, 02 in Black gram, 04 in Green gram, 11 in Cotton and 01 in Jute) were found complete in all respect and were recommended for registration. Passport data of the recommended varieties was published in the Plant Variety Journal of India for calling objections from the interested persons in the matter. Thereafter, the applicants of the recommended varieties were asked to submit the prescribed fee for registration and specified quantity of seed material for storage in the National Gene Bank of the Authority.

2.3 Registration of New Varieties

The PPV&FR Authority for the first time in the country has issued certificate of registration for two new varieties. Maharashtra Hybrid Seed Company (Mahyco) has taken



Representative of Mahyco the leading private seed company receiving the certificate from Hon'ble Sh. Sharad Joshi, Member of Parliament (RS), for the two new varieties registered under the Act.

the initiative and has got the male sterile and restorer line of Bread wheat registered (Table 4). The certificates of registration for these two new varieties of wheat were presented in a function organised by the Authority on 21st December, 2009 at NASC Complex, New Delhi. Hon'ble Sh. Sharad Joshi, Member of Parliament (Rajya Sabha) distributed the certificates.

| S. No. | Name of the applicant Crop species | | Denomination | Distinguishing feature (s) | |
|--------|---|---|--------------|-------------------------------|--|
| 1. | Maharashtra Hybrid Seed Company Limited, Mumbai | Bread wheat (<i>Triticum aestivum</i> L.) | W 6001 | Male sterile (CMS) line | |
| 2. | Maharashtra Hybrid Seed Company Limited, Mumbai | Bread wheat (<i>Triticum aestivum L.</i>) | W 6301 | Fertile line | |

Table 4. Details of the new varieties registered



Registration certificates of Extant Varieties awarded by Hon'ble Sh. Sharad Joshi, MP (RS) to Dr. S.S. Singh, PD (DWR); Dr. Sain Dass, PD (DMR)

2.4 Registration of Extant Varieties

The Authority satisfactorily completed the procedural details paving way for the registration of 123 extant varieties covering 11 crop species viz., bread wheat, rice, maize, sorghum, pearl millet, green gram, black gram, field pea / garden pea, kidney bean / french bean, lentil and cotton. Out of 123 registration certificates issued during the year 2009-10, 107 belonged to ICAR, 11 were from Private Sector and 5 from different State Agricultural Universites. Registration certificates of these varieties were given to concerned breeder / organization / institution.

2.5 Variety of Common Knowledge (VCK)

The criteria for registration of Variety of Common Knowledge was finalized by the PPV&FR Authority and published in the Plant Variety Journal of India and Gazette notified vide G.S.R.452 (E) on 30th June, 2009. Applications of varieties, hybrids and parental lines

under this category will undergo one year DUS testing. Varieties accepted so far under this category are undergoing DUS testing at different DUS test Centres across the country.

2.6 Field Monitoring of Trials

Monitoring Teams led by eminent subject matter specialists were constituted for monitoring of DUS test plots during 2009-10 at different locations. A brief summary is presented below (Table 5).

| S. No. | Crops | Locations | Monitoring team Leader | Date of visit of monitoring team |
|--------|--------------|---|--|--|
| 1. | Bread Wheat | DWR, Karnal IARI, Indore | | 29.03.10 and 30.03.10 14.03.10 and 15.03.10 |
| 2. | Rice | DRR, Hyderabad CRRI, Cuttack | Dr. E. A. Siddiq Ex. DDG (Crop Science) ICAR | 22.10.09 25.10.09 and 26.10.09 |
| 3. | Cotton | CICR, Coimbatore UAS, Dharwar | Dr. A. K. Basu Ex. Director CICR, Nagpur | 27.11.09 22.10.09 |
| 4. | Maize | DMR, New Delhi ANGRAU, Hyderabad | Dr. O. P. Govila Ex. P.D. (Pearl Millet) | 6.09.09 14.09.09 |
| 5. | Sorghum | NRC (Sorghum) Hyderabad MPKV, Rahuri | Dr. E. A. Siddiq Ex. DDG (Crop Science) ICAR | |
| 6. | Pearl Millet | AICRP (Pearl millet), Jodhpur MPKV, Rahuri | Dr. O. P. Govila Ex. P.D. (Pearl Millet) | 15.09.09 8.09.09 |
| 7. | Jute | CRIJAF, Kolkata Bud Bud | Dr. H. S. Sen Ex. Director CRIJAF | 14.09.09 and 20.01.10 15.09.09 and 21.01.10 |
| 8. | Chickpea | IIPR, Kanpur | Dr. P. N. Bahl Ex. DDG (Crop Science) ICAR | 19.3.10 |

Table 5. Crop-wise schedule of DUS test Monitoring Team

The responsibility of the monitoring teams is to verify the distinct trait(s) that are claimed by the applicant and to check whether the trials are being conducted in the manner as specified by PPV&FR Authority. The different monitoring teams submitted their reports to the Authority.

2.7 Trial Summary

One hundred twenty varieties were tested at different centres for distinctiveness, uniformity and stability during Kharif and Rabi seasons of 2009-10 (Table 6). Out of these 01 entry of wheat, 23 of Maize, 09 of Sorghum, 09 of Pearl millet, 08 of Rice, 05 of Cotton have completed two years of field testing and the data so received is under processing. Under the category, 'Variety of Common Knowledge' two varieties of wheat were tested. In addition to this four Farmer's Varieties were tested under Grow Out Test (wheat 02, Rice 01 and Chickpea 01)

| Name of Crops/ Varieties | Kharif 2009 | Rabi 2009-10 |
|---|-------------|--------------|
| New Varieties | | |
| Wheat | - | 2 |
| Maize | 27 | - |
| Sorghum | 15 | 1 |
| Pearl Millet | 12 | - |
| Rice | 8 | - |
| Cotton | 47 | - |
| Jute | 2 | |
| Extant varieties (Variety of Common Kno | wledge) | |
| Wheat | - | 02 |
| Farmer's varieties | | |
| Wheat | | 02 |
| Rice | 01 | |
| Chickpea | | 01 |
| Grand Total | 112 | 08 |

Table 6. Number of candidate varieties for which DUS testing was done

2.8 DUS Test Centres

The Authority maintained and funded 42 DUS Test Centers (Annexure 3) for different crops with a mandate of maintenance and multiplication of reference/example varieties and also generation of database for DUS descriptor as per DUS guidelines of respective crops.

The DUS test is conducted for different crops at two centers for two crop seasons for new varieties. Some of the centres which were involved in DUS Testing are mentioned below:

• **Directorate of Wheat Research, Karnal**: DWR, Karnal is the Nodal Centre for conducting DUS test of wheat with IARI, Regional Centre, Indore as Co-Nodal Centre. During 2009-10, two new varieties, two extant varieties (VCK) and two Farmers' Varieties were tested. DWR also maintained all reference varieties of wheat.

Project **Co-ordination** Unit, Mandore, Jodhpur: PC Unit. Jodhpur is the Nodal Centre for conducting DUS trial of Pearl millet and MPKV, Rahuri is the Co-Nodal Centre for this crop. During 2009-10, 12 candidate varieties were put under DUS test, out which 09 have completed 2nd years of DUS testing. Apart from DUS testing the Nodal Centre is also responsible for maintaining the reference collection they have collected from different



Nodal pubescence: Present (at flowering stage)

Nodal pubescence: Absent

centres. One of the distinctive traits in Pearl Millet of Nodal Pubescence (Present or Absent) has been shown in the figure.

 Directorate of Sorghum Research, Hyderabad: DSR, Hyderabad is the Nodal Centre for Sorghum DUS test along with Mahatma Phule Krishi Vidyapeeth, Rahuri as Co-Nodal Centre. During 2009-10, the Nodal centre has conducted DUS test for 16 candidate varieties, out which 10 have completed two years of DUS testing. In addition to this the Nodal centre is also maintaining the reference varieties and characterizing the new

reference varieties collected from different centers and updating the data of these varieties in the database.

Directorate of Maize Research. New Delhi: DMR, New Delhi is the Nodal Centre for Maize DUS test along with the Aacharva N.G. Agricultural Ranga University as Co-Nodal centre. The centre has DUS conducted test of 27 candidate



Silk pigmentation : absent



Anther pigmentation : absent Anther pig Distinctive Traits in Maize



Silk pigmentation : present



Anther pigmentation : present its in Maize

varieties during 2009-10, out of which 23 varieties have completed two years of DUS testing. In addition to DUS testing, the centre has maintained 24 reference collection and characterized them for inclusion in the database. The list of reference varieties grown by DMR for characterization and inclusion in database include HKI 1011, HKI 1105, HKI 1126, HKI 1128, HKI 1342, HKI 1344, HKI 288-2, HKI 295, HKI 323, HKI 327T, HKI 335, HKI 46, HKI 536,CM 145, CM 300, CML142, , Vivek 5, African Tall, Amber popcorn, Madhuri. Some distinctive traits of maize are being depicted in the photographs.

- **Directorate of Rice Research, Hyderabad:** Directorate of Rice Research, Hyderabad is the Nodal Centre for conducting the DUS trial of Rice and Central Rice Research Institute, Cuttack was taken as Co-Nodal Centre. A total of 08 new varieties were DUS tested at both the locations and subjected to two years of DUS testing. In addition to the DUS testing these centres also conducted the Grow Out Test for one Farmer Variety of Rice during 2009-10.
- Central Institute for Cotton Research, Coimbatore: CICR, Coimbatore is acting as Nodal Centre for DUS testing of Cotton whereas Chaudhary Charan Singh Haryana Agricultural University, Hisar;Punjab Agricultural University, Ludhiana; Central Insitute of Cotton Research, Nagpur and University of Agricultural Sciences, Dharwad are the Co-Nodal centres. During 2009-10, 47 cotton varieties have been tested, out of which five have been tested for the mandatory two growing seasons. Besides this, Nodal Centre is collecting the reference varieties from different centres all over India and characterizing them for inclusion in the database. Four new genotypes of tetraploid and one diploid cotton, respectively were characterized morphologically as per the PPV &FRA approved guidelines. The genotypes were RAHS 14, RAJHH -769, JLA -802, LAHH -5 and DDHC -11. The morphological characters were included in the data base maintained at CICR, Coimbatore. Upon further evaluation the same will be included in the DUS database.
- **Central Research Institute for Jute and Allied Fibres, Barrackpore:** CRIJAF, Barrackpore has acted as Nodal centre and its station at Bud Bud as Co Nodal Centre for DUS testing of Jute .Two candidate varieties were tested under DUS project during 2009-10.In addition to the DUS testing the CRIJAF centre has maintained the 13 reference varieties of *capsularis*, 06 varieties of *olitorius* and recorded the data as per DUS test Guidelines.

2.9 Plant Variety Journal of India

Plant Variety Journal (PVJ) of India being a monthly publication, twelve issues were published during 2009-10. Complete passport data of 72 applications belonging to new varieties and varieties of common knowledge as accepted for DUS testing and 93 applications belonging to extant varieties (notified under the seed Act, 1966) as recommended by Extant

Variety Recommendation Committee were published in the PVJ of India. Besides other important infromation publised in the PVJ of India included:

- (a) details of varieties registred under PPV&FR Act, 2001
- (b) crop specific DUS test guidelines of 26 species
- (c) public notices regarding criteria and DUS test fees for registration of varieties of Common Knowledge
- (d) registation fee for new varieties, essentially derived varieties, extant varieties notified under seeds Act, 1966 and varieties of common knowledge as applicable for different catagories of applicants,
- (e) permitted off types for farmers varieties in notified crop species.



- (f) labelling details of seed packets indicating denomination and registration number of registered plant varieites
- (g) agrobiodiversity hot spots in India identified by the Authority.

3. NATIONAL REGISTER OF PLANT VARIETIES

The PPV&FR Authority in compliance to Section 13 of the PPV&FR Act, 2001 opened the National Register of Plant Varieties at the Head Office of the Registry. This has complete details of the names of all the registered plant varieties along with the names and addresses of the respective breeders, denomination, specifications, salient features etc. So far, two new varieties, three Farmers' Varieties and one hundred sixty three extant varieties (notified under Section 5 of the Seeds Act, 1966) which have been registered under the Act have been entered in the National Register of Plant Varieties.

4. NATIONAL GENE BANK OF PPV & FRA

In accordance with Section 27 of PPV&FR Act the breeder has to deposit the prescribed quantity of seed or propagating material including parental line seeds of registered variety in the National Gene Bank. The National Gene Bank of the Authority was established in 2007, is fully functional now and is located at Old campus of National Bureau of Plant Genetic Resources (NBPGR), New Delhi. This is functioning under the technical guidance of NBPGR and "true" (Orthodox) seeds of registered varieties under Medium Term Storage conditions and DUS Test Repository (store for seeds of the candidate varieties undergoing DUS test) are kept in safe storage under controlled climatic conditions.

4.1 Medium Term Storage of Seeds of Registered Varieties

The seed material of all the registered varieties is stored in specially designed seed cabinets under controlled climatic condition where the temperature is maintained at 4 °C with 30 ± 05 % Relative Humidity (RH) to ensure that the stored seed samples retain viability for a longer duration. The cabinets have double lock system to ensure safety of the stored material.

Samples of seeds of 163 Extant varieties (notified under Section 5 of the Seeds Act, 1966), two new varieties and three Farmers' varieties for which the certificates have been issued during 2008-09 and 2009-10, are being kept here. These seed samples will be stored for the stipulated protection period. The detailed information about the crops whose seeds have been stored is given in table 7. The Breeder may be asked to submit fresh seed samples at their own cost in case of loss of viability of already submitted samples.

Table 7. Samples of registered varieties stored in National Gene Bank under mediumterm storage conditions

| S.No. | Сгор | No. of seed samples | | | | | Total | |
|--------|--------------------|---------------------|---------|-----------|--------|---------|-----------|-----|
| | | | 2008-09 | | | 2009-10 | | |
| | | Public | Private | Farmers' | Public | Private | Farmers' | |
| | | sector | sector | varieties | sector | sector | varieties | |
| New V | /arieties | | | | | | | |
| 1. | Bread Wheat | - | - | - | 02 | - | - | 02 |
| Farme | rs' varieties | | | | | | | |
| 2. | Rice | - | - | - | - | - | 03 | 03 |
| Extant | varieties notified | | | | | | | |
| 1 | Pearl millet | 05 | 01 | - | 17 | 06 | - | 29 |
| 2 | Rice | - | 01 | - | 02 | - | - | 03 |
| 3 | Sorghum | 03 | 01 | - | 08 | - | - | 12 |
| 4 | Moong | 05 | - | - | 12 | - | - | 17 |
| 5 | Urd | 04 | - | - | 04 | - | - | 08 |
| 6 | Kidney bean | 01 | - | - | 02 | - | - | 03 |
| 7 | Field pea | 80 | - | - | 02 | - | - | 10 |
| 8 | Lentil | 05 | - | - | 01 | - | - | 06 |
| 9 | Bread wheat | - | - | - | 46 | - | - | 46 |
| 10 | Maize | 06 | - | - | 14 | - | - | 20 |
| 11 | Cotton | - | - | - | - | 05 | - | 05 |
| 12 | Garden pea | - | - | - | 04 | - | - | 04 |
| | Total | 37 | 03 | | 114 | 11 | 03 | 168 |

4.2 Short Term Storage at the Gene Bank

Besides storing the seeds of registered varieties for the stipulated period the national gene bank is also used for storing the seed of the varieties undergoing DUS testing in the field. As per Sec. 19 of PPV& FR Act, 2001 the seeds need to be submitted for conducting appropriate test to ascertain DUS. Rule 29 (1)(c) provides that the DUS testing shall be field and multi-location based and for atleast two crop seasons. Hence, for new candidate varieties, extant varieties (for varieties of common knowledge) and farmers' varieties, the applicant submit the seeds as per crop specific guidelines that are being kept at the gene bank. Representative samples of seeds are sent to DUS test centers to conduct the DUS test and the rest of the samples are kept for contingency. The seed packets are stored at 20 ± 2 °C till the DUS test is over. Presently seeds of 147 new varieties, 21 extant varieties (Variety of Common Knowledge) and 7 farmers' varieties have been stored under short term storage conditions (Table 8).

| S. No. | Сгор | No. of seed samples | | | | | | | | | | |
|--------|--------------|---------------------|------------------------|--------------------------|---------------|----------------|--------------------------|------------------|--------------|-----------------|-----|-----|
| | | 2007-08 | | | 2008-09 | | | 2009-10 | | | | İ |
| | | New Varieties | | Farm- ers' Variet- | New Varieties | | Farm- ers' Variet- | New Varieties | | Farm- | VCK | |
| | | | | | | | | Public sector | Pri- vate | ers' Variet- | | |
| | | Public sector | Pri- vate sector | ies | sector | vate sector | ies | | sector | ies | | |
| 1 | Wheat | - | - | - | - | 01 | - | 01 | - | 02 | 02 | 06 |
| 2 | Pearl millet | - | - | - | - | 09 | - | - | 06 | - | - | 15 |
| 3 | Sorghum | - | - | - | 04 | 09 | - | 06 | 04 | - | - | 23 |
| 4 | Maize | - | - | - | 04 | 20 | - | 06 | 06 | | 13 | 49 |
| 5 | Rice | - | - | - | - | 08 | 01 | - | 03 | 02 | 01 | 15 |
| 6 | Cotton | - | - | - | - | 21 | - | 03 | 32 | - | 05 | 61 |
| 7 | Jute | - | - | - | 02 | - | - | 02 | - | | - | 04 |
| 8 | Pigeon pea | - | - | - | - | - | - | - | - | 01 | - | 01 |
| 9 | Chickpea | - | - | - | - | - | - | - | - | 01 | - | 01 |
| | Total | - | - | - | 10 | 68 | 01 | 18 | 51 | 06 | 21 | 175 |

Table 8. Short term storage of seeds samples of New,Extant and Farmers' Varieties

4.3 Field Gene Bank

For the purposes of Plant Genetic Resource conservation, storage of "orthodox" seeds having low moisture content at low temperature (4-5°C) is the most widely used strategies of Medium term storage. However, for perennial plants (e.g., fruit trees like mango and citrus,

plantation species like Eucalyptus and Poplar, commercial species like Rubber and Coffee, sugar crops like Sugarcane or forage grasses) that either produce "recalcitrant"(either short lived or do not withstand dessication) seeds or no seeds at all, clonally propagated and have long regeneration cycles or sexually sterile, "Field Gene Bank" is a practice worldwide as an effective "Ex situ" conservation strategy.

Field gene banks are developed in places mostly near to the place of origin/diversity of the species concerned, where suitable agro-climatic conditions like (soil, water area being relatively free from disease pest infestation) are available.

India has rich agro-biodiversity of many species, including Mango, Citrus, Banana, Coconut, Cashew, Coffee, Rubber, Tea, Turmeric, Ginger, Cardamom & other plantation/ horticultural/ forestry species. Hence, during the XIth plan period, PPV&FRA selected two centres, Dr BS Konkan Krishi Vidyapeeth, Dapoli (for Western regions including Konkan coast) and Birsa Agricultural University, Ranchi(for Eastern regions in India), to establish field gene banks of varieties of the fruit/plantation/forestry species of commercial importance. A long term commitment was obtained from the respective institutes and work was initiated on project mode under memorandum of understanding to create necessary infrastructure. The identified area has been fenced. These facilities are also used for capacity building, documentation & training on the issues related to plant variety registrations. These field gene banks will act as a repository of the varieties released (referral collection) collected from different niches so that sub-species/intra-varietal variability is preserved at one place. They will also have plants of protected varieties under the PPV&FR Act, 2001. Proper documentation and database management will help in identification of distinctness during DUS test for any New variety, help in resolution of legal cases and dispute settlement etc. Field establishment for referral collections are being done using DUS descriptors or available publications, e.g., IPGRI descriptors. Plants will be maintained in high density spacing with optimum package of practices since the objective is to maintain morphological distinctness in comparison to other varieties.

PPV&FRA also initiated an exercise to prioritise other temperate fruit crops (e.g., Apple, Pear, Walnut etc), species endemic to coastal / arid regions, for development of DUS descriptors and identify centres where Field Gene Banks will be established.

Since a number of horticultural species, e.g., Mango, Spice crops(Turmeric, Ginger, Small Cardamom etc) have now been included in the plant variety registration process and development of DUS descriptors for crops like Banana, Coconut, Citrus, Guava etc are also been initiated, PPV&FRA initiated "Field Gene Bank" of horticultural species(including medicinal/aromatic, forestry, plantation etc) initially at two agro-ecological regions, e.g., at Birsal Agricultural University, Ranchi for crops species endemic to Eastern regions and another at Dr B S Konkan Krishi Vidyapeeth, Dapoli for Western and Coastal regions. Initially, a three

year programme on project mode has been started to develop infrastructure (field and lab based). A preparatory meeting was conducted on 23rd June, 2009 at New Delhi to ascertain the modalities to operationalise the field gene banks and it was decided that the Gene banks shall consist of three blocks each, viz. Example/Reference block, Gene bank repository block and DUS test block. It was also decided that intra-varietal variability for each crops need to be captured.

4.3.1 Field Gene Bank at Birsa Agricultural University, Ranchi

The main objective is to establish live repository of registered /example/farmers' varieties and development/refinement of descriptors for regionally important fruit crops, viz., Mango, Aonla, Pineapple, Litchi, Guava, Citrus and Banana etc.,(Eastern Region). The project was formally launched on 31.01.2009 at BAU, Kanke, Ranchi in the presence of Dr. S. Nagarajan, Chairperson, PPV&FRA and Dr. N. N. Singh, Vice Chancellor, BAU, Ranchi.

The centre has developed a fenced farm facility of approximately 8 acres, designed the layout for planting of reference varieties of Mango and planted 400 polyembryonic rootstocks in the reference block that will be suitable for grafting in the ensuring season. Apart from this procurement of farm machineries/equipment(s), deployment of technical manpower and an initial survey for collection of 44 elite Mango varieties for establishment of reference varieties has been made. The elite varieties of Citrus (Lime and Lemon) will be sourced from NRC Citrus (ICAR) at Nagpur and similarly indexed Banana plants will be sourced from NRC Banana (ICAR) at Trichi. The University has a long term commitment to develop and maintain the infrastructure since this will serve as an important purpose during DUS testing, maintaining gene bank of registered varieties and legal issues.

4.3.2 Field Gene Bank at Dr BS KKV, Dapoli

The main objective of the project is collection and *ex-situ* conservation, documentation and description of fruit, plantation and tree species and horticultural crops, viz., Cashew, Mango, Ginger, Small Cardamom, Black pepper, Turmeric etc The site plan for reference varieties/DUS test block/Gene Bank block has been laid out and land preparation for Ginger, Small Cardamom, Black pepper, Turmeric were completed. Approximately 200 nos. of Vellaikolamban rootstock planting materials were procured and construction of lab facilities were also initiated. It is now planned that the centre will source elite planting material(s) of identified mango varieties from Regional Fruit Research Station (Vengrula) and graft on the Vellaikolamban rootstocks in the coming season. The centre has also collected elite planting material of Ginger that will be planted in reference blocks.

5. DEVELOPING DUS TEST GUIDELINES FOR NEW CROP SPECIES

5.1 DUS Test Guidelines Completed during 2009-10

The projects for the development of DUS test guidelines of the crops which are to be brought under the umbrella of registration are regularly reviewed from time to time. The DUS Test Guidelines for Mentha (*Mentha arvensis*), Rose (*Rosa damascena*), Brahmi (*Bacopa monnieri*), Periwinkle (*Catharanthus roseus*), Ashwagandha (*Withania somanifera*) and Isabgol (*Plantago ovata*) were developed and submitted by the concerned institutions. The present status of actions, covering different crops is as below:

| Crop(s) | Crop Species | Status | | | |
|--------------------------|--|---|--|--|--|
| Oil seeds | Indian Mustard, Rapeseed, Sunflower, Saf- flower, Castor, Sesame, Linseed, Groundnut and Soyabean | Under process of notification | | | |
| Fruit | Mango | Under process of notification. | | | |
| Vegetable | Cabbage, Cauliflower, Onion, Garlic, Okra, Tomato, Brinjal and Potato | Under process of notification. | | | |
| Flower | Rose and Chrysanthemum | Under process of notification. | | | |
| Spice | Turmeric and Ginger Small Cardamom and Black Pepper | Notified for registration Under process of notification | | | |
| Cash crop | Sugarcane | Notified for registration | | | |
| Medicinal and Aromatic | Mentha, Rose, Brahmi, Periwinkle, Ashwa- gandha and Isabgol | Descriptors developed and submitted to PPV&FRA | | | |
| Tree and Planta- tion | Coconut and Cashew Pome fruits (Apple and Pear), Nuts (Walnut and Almond) and Stone Fruits (Apricot and Cherry) | Descriptors under validation Descriptors under development | | | |
| | Citrus (Citrus reticulata, C. sinensis and C. aurantifolia) | Descriptors under development | | | |
| | Rubber | Descriptors under validation | | | |
| | Sweet Potato and Cassava | Descriptors under development | | | |
| Forestry | Eucalyptus and Casuarinas (Energy and Tim- ber species) Neem, Karanj and Jatropha (Oil bearing | Descriptors under validation Descriptors under development | | | |
| | Tree species) | | | | |

Table 9. Status of DUS Test Guidelines of new crops during 2009-10

5.2 **Projects for Development of New DUS Test Guidelines**

In addition to the ongoing projects for the development and validation of DUS test guidelines for different crops, PPV&FR Authority, on the basis of an open advertisement in Current Science, called for the projects on new crops especially horticultural, forestry and plantation crop species. Based on the screening and recommendations of the Project Appraisal Committee, a number of projects for the development of descriptors and DUS testing criteria for Temperate Pome fruits (Apple and Pear), Nuts (Walnut and Almond), Stone Fruits (Apricot and Cherry), Oil bearing Tree species (Neem, Karanj and Jatropha) and Citrus (Citrus reticulata, C. sinensis and C. aurantifolia) were initiated with financial assistance from the Authority (Annexure-4). Beside these, projects on Vegetable Cucurbits [Cucumber (Cucumis sativus), Bottle Gourd (Lagenaria sinceraria), Bitter Gourd (Momordica charantia), Pumpkin (Cucurbita moschata) and Pointed Gourd (Trichosanthes dioca)], Tea, Banana, Guava, Litchi, Conifers (Pines, Cidar), Bamboo, etc were finalized in principle and will be funded during 2010-11. The Project Appraisal Committee in its meeting held on 22nd July, 2009 and 17th March, 2010 at New Delhi evaluated the financial and physical progress of the projects. The institution wise progress is as below:

5.2.1 Institute of Forest Genetics and Tree Breeding (IFGTB), Coimbatore

Under the project "Developing Strategies for describing, testing and registering varieties of forest tree species", available inter-clonal variability of Eucalyptus and Casuarina, commercially used by the paper industry were evaluated to develop descriptors. Based on the studies of morphological characters and on the basis of data generated through image analyzer, several distinctive characters were recorded. These characters were thoroughly discussed in a meeting of the stakeholders organized at IFGTB, Coimbatore on 23rd September, 2009 to finalize the draft DUS Test guidelines. These draft DUS Test guidelines are under validation through multi-location data collection under the project 'Validation of DUS Testing guidelines for Casuarinas and Eucalyptus' approved during 2009-10 with a budget allocation of Rs. 22.68 lakhs for two years.

5.2.2 Central Institute of Medicinal and Aromatic Plants, Lucknow

Under the project entitled "Development of DUS guidelines and strengthening of DUS test centres for laboratories and field facilities, digitalization and training in medicinal, aromatic and seed spices", development of descriptors for *Mentha arvensis* (Menthol mint), *Rosa damascena* (Rose), *Bacopa monnieri* (Brahmi), *Catharanthus roseus* (Periwinkle) and *Withania somnifera* (Ashawagandha) was completed and the draft DUS Test guidelines for the five crops were submitted to the PPV&FRA.

5.2.3 Directorate of Medicinal and Aromatic Plants Research (DMAPR), Anand

India being the major grower and exporter of Isabgol (*Plantago ovata*) and the crop being a major source of income and livelihood for the peasants of Gujarat and Rajasthan working under harsh and marginal conditions, the registration of the varieties of Isabgol was given due priority. Draft DUS test guidelines for Isabgol (*Plantago ovata*) were developed and discussed in the Meeting held on 10th November, 2009 at PPV&FR Authority. Based on the discussions, the draft guidelines were duly modified and the same were vetted by the expert peer reviewers. The draft DUS test guidelines are now ready and the crop can be notified for registration after which applications will be received in the office of the Authority.

5.2.4 National Research Centre for Seed Spices (NRCSS), Ajmer

The purification of Indian Coriander varieties that are released either for use as seed spice or as a condiment or for both was taken-up. The available varieties of coriander were also a mixture or population and so under controlled pollination, they were purified and made true to type. The draft DUS test guidelines are under preparation and will be submitted soon.

5.2.5 Central Tuber Crops Research Institute (CTCRI), Trivandrum

Under the project entitled "Developing DUS Testing criteria and varietal gene bank establishment for the tropical tuber crops Cassava and Sweet Potato" following progress was made:

- In Cassava 34 morphological and 21 quantitative traits were identified for characterization where as in Sweet Potato 32 key descriptors and 13 quantitative traits were identified.
- DUS testing site in Central Tuber Crops Research Institute-HQ, Kerala (1600m²) and CTCRI RC, Orissa (900 m²) has been developed.
- 17 released varieties of Cassava and 26 released varieties of Sweet Potato were collected and established in varietal gene bank at CTCRI-HQ. 14 released varieties of Cassava and 33 varieties (released &pre-release) of Sweet Potato were established in the varietal gene bank of CTCRI (RC), Bhubaneswar.
- Replicated evaluation trial were conducted and morphological characters and reference varieties for further evaluation of stability were identified. The planting materials were multiplied and exchanged between the centres for conducting evaluation. Also virus free planting materials of Cassava varieties were multiplied through meristem culture to facilitate accurate characterization.

• 55 characters of 17 varieties of Cassava and 18 characters of 26 released varieties of Sweet Potato were recorded at CTCRI, Trivendrum. 33 characters of 26 released varieties of Sweet Potato and 26 characters for 10 released varieties of Cassava have been recorded at the collaborating centre, CTCRI (RC), Bhubaneswar.



5.2.6 Other Tree, Forestry and Plantation crops

- The draft DUS testing guidelines for coconut were prepared and the descriptors were validated by the Central Plantation Crops Research Institute (CPCRI) at Kasargod in Kerala. The DUS testing guidelines are to be vetted and finalised by the task force for plantation crops after which they will be notified
- NRC for Cashew, Puttur, Karnataka developed and submitted the draft DUS test guidelines for Cashew which are to be examined by the Task Force before adoption.



- Rubber Reseach Institute of India, Kottayam, Kerala developed the draft DUS test guidelines for Rubber with acceptable morphological descriptors and are under validation at different locations.
- A project entitled 'Developing DUS descriptors and test guidelines for tree species of Neem, Karanj and Jatropha for Rs. 27.60 lakhs was sanctioned for three years to the Forest College and Research Institute (TNAU), Mettupalayam, Coimbatore for the development of morphological descriptors and draft DUS test guidelines for oil bearing tree species. Some distinctive characters have been identified by the institute and those are being recorded and verified.



Some important DUS descriptors for oil bearing tree species (Neem, KaranJ and Jatropha) were identified

5.2.7 Central Institute of Temperate Horticulture, Srinagar

Three projects for the development and validation of DUS test guidelines for Pome fruits (Apple and Pear), Nuts (Walnut and Almond) and Stone Fruits (Apricot and Cherry) were sanctioned with a combined budget of Rs. 72.20 lakhs for three years. The projects are aimed at the registration of major fruits of the temperate India including the indigenous fruits like walnut. Once the registration is opened it is hoped that the international Institutes will be encouraged to exchange better varieties of apple and other temperate fruits developed by them after registration in India.

5.2.8 Indian Institute of Spices Research, Kozhikode, Kerala

With a view to develop a strong database and repository of major Indian spices a project entitled "Establishment of DUS test Centre for spices" at two places namely Kozhikode and Orissa with an oultay of Rs 14.30 lakh for two years was sanctioned. The centre submitted the database of the released varieties of ginger (*Zingiber officinale* Rosc.), turmeric (*Curcuma longa* L.), black pepper (*Piper nigrum* L.) and cardamom (*Ellettaria cardamomum* Maton).

5.2.9 National Research Centre for Citrus, Nagpur

Project entitled 'Finalizing crop specific DUS Testing guidelines for Citrus (*Citrus reticulata, C. sinensis and C. aurantifolia*)' with a budget outlay of Rs. 45.356 lakhs for three years was sanctioned. The aim of the project is to finalize and validate the DUS

descriptors for the three commercially important *Citrus* spp., which are indigenous to India.

5.2.10 National Research Centre for Orchids, Sikkim

The characterization of the three genera of orchids viz. *Cymbidium, Dendrobium* and *Vanda* with regard to morphological features which can be used for DUS Testing was carried out and the draft technical guidelines were developed. First meeting of the Task Force constituted for this purpose was held at Gangtok on 22.2.10 to examine these draft guidelines and the morphological characters in greater detail.

5.2.11 Indian Institute of Horticultural Research, Bangalore

A project on 'Strengthening of DUS Test Centre and Rose Repository' at IIHR, Bangalore under the PPV&FR Act' was initiated at the institute with an outlay of Rs. 32.518 lakhs for two years. The aim of the project is to develop a repository of all known/recognized varieties of rose for creation of complete database for felicitation of DUS Tests.

6. RESEARCH AND OTHER DUS RELATED ACTIVITIES

6.1 Research

6.1.1 S.D. Agricultural University, Sardarkrushinagar

A project entitled "Maintenance Breeding and purification of existing varieties of pulses" to study the maintenance breeding techniques which can be adopted for reference and example variaties of pulses and other crops with a outlay of Rs. 25.03 lakhs for a period of two years made available by the Authority was taken up at the Centre of Excellence for Pulses Reseach, SDAU, Sardarkrushinagar, Gujarat. The project also aims to provide training to those engaged in the maintenance of reference collections mainly of cross-pollinated and often cross pollinated crop species.

6.1.2 M S Swaminathan Research Foundation, (MSSRF) Chennai

A project entitled DUS Characterization and Evaluation of Farmers' Varieties of Rice under Conservation in the Community Gene Bank of MSSRF' aimed at characterisation of the Farmers' Varieties so that these varieties can be registered and maintanied for posterity was taken up with the financial support of Rs. 23.00 lakh spread over a period of three years provided by the Authority.

6.1.3 G.B. Pant University of Agriculture & Technology, Pant Nagar

The project entitled 'Status of Varieties in the Seed Market of India' which was sanctioned with a budgetary provision of Rs. 5.247 lakhs for one year submitted its final report. The centre contacted 345 seed companies for the data on wheat, rice, maize and cotton, but only 13 companies responded to the request. The detailed report on the varieties under trade, prices etc was compiled and submitted to the PPV&FRA.

6.1.4 Indian Agricultural Research Institute, New Delhi

The project entitled 'Development of procedure and protocol for ascertaining the Essentially Derived Varieties status in rice, wheat, maize and pearl millet' taken up by the Division of Genetics, IARI, New Delhi ended on 31.03.2010. The data generated is being compiled and the final report of the project is awaited.

6.2 Other DUS Related Issues

6.2.1 National Consultations on 'Issues related to the Registration of Tree and Plantation Crops'

In collaboration with the Bio-Tech Consortium of India Ltd., four National Consultations to delebrate upon the problems and issues related to the Registration of tree and plantation crops were organized at:

- a. Central Potato Research Institute, Shimla on July 1, 2009
- b. CPCRI, Kasargod on July 10, 2009
- c. AAU, Jorhat on November 3, 2009 (in collaboration with BCIL, New Delhi) and
- d. National Research Centre for Citrus, Nagpur on December 8, 2009 (in collaboration with BCIL)

The major inferences drawn from these consultations were:

- 1. The registration of varieties of Trees and Vines differs on several aspects from the annual Field crops due to inherent genetic reasons.
- 2. In trees and vines, as the propagation is mainly through vegetative means, the Uniformity and Stability can be easily established by observations on the mother plants.
- 3. There is long juvenile phase in most of the tree crops, after which reliable morphological traits appear.
- 4. The cost of handling the planting material is high.
- 5. The survival of the planting material is crucial after a particular stage and age.



Four National Consultations on tree and Plantation Crops were organized at CPRI, Shimla, CPCRI, Kasargod, AAU, Jorhat and NRC for citrus, Nagpur

- 6. The long breeding cycle and difficult selection methods, consume a number of years in releasing a variety.
- 7. The DUS Testing time, if long, will only add to the delay in the marketing of the newly developed varieties.
- 8. Thus, stakeholders need some simple and efficient method for DUS Testing.

Based on these inferences and recommendations, an amendment in the section 29(1)(c) to provide for the 'On site inspection of varieties of trees and vines' is under examination.

6.2.2 Discussion on 'Agro-biodiversity Hotspots, Farmers' Rights and International Legislations'

A one day National Discussion was organized by PPV&FRA at New Delhi on December 21, 2009, under the chairmanship of Dr. P.L. Gautam, Chairman, National Biodiversity Authority to discuss various issues related with the agro-biodiversity hotspots and the Famers' Rights. Presentations on various aspects were made by experts followed by discussions there on.



National Discussion on Agrobiodiversity hotspots, Farmer's Rights and International Legislations was attended by scientist, development workers and farmers.

6.2.2 Consultation Meeting of Experts for the Development of DUS Test Guidelines for Bamboo at Rain Forest Research Institute, Jorhat

An Consultation Meeting of Experts for the development of DUS test guidelines for bamboo was organized at Rain Forest Research Institute, Jorhat on November 5, 2009. The

meeting was attended by the bamboo experts from all over India and discussions were held to identify the most important commercial species of Bamboo to initiate the development of DUS test guidelines.



An Expert Consultation meeting was organized at RFRI, Jorhat, Assam

6.2.3 Stakeholders' Meeting for Development of DUS Test Guidelines for Tea at Tea Research Association, Tocklai Experimental Station, Jorhat

A Stakeholders' Meeting for the Development of DUS test guidelines for Tea at Tea Research Association, Tocklai Experimental Station, Jorhat was organized to finalize the procedures and details for bringing Tea under the ambit of registration.

6.2.3 National Seminar on 'Intellectual Property Right and Protection of Plant Varieties & Farmers' Rights Act: Towards Conservation, Innovation, Protection, Management and Commercialization'

A National Seminar on 'Intellectual Property Right and Protection of Plant Varieties & Farmers' Rights Act: Towards Conservation, Innovation, Protection, Management and Commercialization' was organized by the Institute of Forest Genetics and Tree Breeding, Coimbatore on September 4, 2009 to discuss various issues related to protection of intellectual property related to forestry crop species and sustainable use of biodiversity.

7. DEVELOPMENT OF DATA BASE AND IINDUS

The Software "Indian Information System as per DUS Guidelines" (IINDUS) and "Notified and Released Varieties of India" (NORV) for the documentation of the extant varieties notified under Seed Act. were developed by PPV&FR Authority by out sourcing the work to M/s Birla Soft India Private Limited. The content of software includes data for National Register of Plant Varieties, Form 1 & 2, Technical Questionnaires (TQ), data of extant varieties as per DUS guideline, report of DNA fingerprinting and molecular biology information, digital herbarium, details of Gene Bank and e-Journal. The IINDUS version 08.1 will be made available to users on payment basis for routine surfing and to confirm the novelty of the material they intent to apply. It is envisaged that this will function as a dynamic on-line database for the purposes of Plant Varieties Registration by PPV & FR Authority. This system has been designed to keep all the essential features of the DUS descriptors like grouping, essential qualitative and quantitative traits. IINDUS 08.1 has the provision for storing information about the details of parentage of a variety, reference variety and that of example varieties and for picking up the relevant varieties that are to be grown with the candidate varieties in the DUS tests. For this purpose a vast database was created by taking the known characters of several hundred already released varieties. The database can be searched using specific words that are distinguishing characters of a new denomination. The already known variety that is nearest to the candidate variety but is not identical can be located through an IINDUS search. Such example varieties can be grown in the DUS test plots to examine and differentiate the new variety from the earlier registered ones.

The details of the application(s) received in the Plant Varieties Registry for registration in different categories are being entered in the IINDUS version 08.1. The Hindi version of the website has also been activated and can be surfed by the users in Hindi as well. Data base of varieties released and notified under the Seed Act, 1966 for the crop species Gazetted notified and opened for filing of application(s) for registration have been uploaded in the IINDUS version 08.1.
8. ACTIVITIES OF THE LEGAL CELL

8.1 RTI Replies

The Authority has nominated ACPIO, CPIO and First Appellate Authority for speedy and proper disposal of information sought under the RTI Act. The details of the designated officers are available on Authority's website under the head 'RTI'. The Authority received seventeen applications seeking information under RTI Act and the information sought was made available within the prescribed time. Three cases of appeal were also disposed off within time by the first Appellate Authority of PPV&FR Authority. Maximum questions under the RTI relate to registry section of the PPV&FR Authority.

8.2 Other important Activities of the Legal Cell

The legal cell of the Authority, which has two qualified and experienced legal advisors as full time employee of the Authority, discharge multifarious activities like drafting sub-ordinate legislations, drafting reply to court cases filed against the Registry and Authority, rendering legal advise and inputs to proceedings before Authority and Registrar, advise on international treaties and to give legal opinions on various issues etc.

The following sub-ordinate legislations were notified namely:-

- The PPV&FR (Criteria of DUS for registration) Regulations, 2009, fixing DUS criteria for Common Knowledge Varieties and Farmers' Varieties.
- The Annual fee notification published in Gazette of India dated 26.8.2009.
- The PPV&FR (First Amendment) Rules 2009) fixing fees for registration of new variety and extant variety about which there is common knowledge.
- The PPV&FR (Second Amendment) Rules 2009 whereby the registration of farmers' variety was extended from three years to five years.
- Notifications of Sugarcane, Ginger and Turmeric under section 29(2) for registration.

All the High Court cases against Authority and Registrar in Delhi and Andhra Pradesh are being defended by the legal cell effectively.

Registrar has passed 61 orders in various proceedings filed before the Registry and daily order sheets are being promptly dispatched to the parties.

The legal cell has rendered legal advice in the international matters regarding India EU Broad Based Trade Investment Agreement, India Japan CEPA Negotiation and India EFTA Negotiation. Some important draft notifications forwarded to DoAC for notification in the official gazette are: (a) Protection of Plant Varieties Appellate Tribunal Rules, (b) Use of Denomination Rules, (c) PPV&FR Amendment Rules comprehensively covering Rules 29, 33, 54 and 3rd Schedule and (d) notification to Limit the Period of Protection of Common Knowledge Varieties.

Legal Cell is also called upon to render advice and give expert opinion on various matters relating to interpretation and implementation of PPV&FR Act, 2001 and PPV& FR Rules, 2003.

As per the decision taken in the 9th meeting of the Authority the legal cell will maintain a digital record of all the orders passed by the Registrar in different matters for the purpose of record and future reference.

9. FARMERS' RIGHTS

9.1 Farmers' Variety

9.1.1 Three Farmers' Varieties of rice viz. Indrasan, Hansraj and Tilak Chandan were

- granted registration, thus, making India the first country in the world to have done so. The distinctive characters of the varieites have been presented in Annexure 6.
- 9.1.2 The Authority received 44 applications for registration of Farmers' varieties concerning different crops. The maximum number of applications received were for Rice (33) followed by Bread wheat (6) and Pigeon pea (2) and for Sorghum, Chick pea and French bean only one application each was received.

9.1.3 Gazette notification for the extension of time limit for registration of farmers' varieties

Indian agriculture, which is now more than 3000 years old practice and the source of livelihood for 70% of the population, has stood the test of time, may it be climate change,



Farmers' Varieties registration certificate being released by Hon'ble Sh. Sharad Joshi, MP, Rajya Sabha

biotic and abiotic stresses or so many other factors, which affected it in its course of development. Even before the Mendalian Genetics and targetted breeding programmes came into play, the natural selection and the human-crop interfaces have given rise to some highly adaptable and robust varieties which are now conserved as traditional farmers' varieties. These varieties are not only the potential source of genes for future breeding programmes but also have enough locked variability to sustain the vageries of climate change thereby having a great potential for ensuring food security of the country.

The PPV&FR Act, 2001, provides for an opportunity to the farming and tribal community to come forward and own the traditional varieties with them through the process of registration. These ownership rights will safeguard the valuable agrobiodiversity from illegal exploitation and give a push to the concept of benefit sharing among the conservers and the end users.

The PPV&FR Act having been recently enacted and implemented needs to be brought to the notice of the masses especially rural communities. With a view to increase its awareness among the farmers, breeders and the public at large the PPV&FR Authority has been organizing several awareness programmes through KVKs, ICAR Institutions, SAUs, and NGOs etc. since its operationalization in 2005. But, by the year 2009, it was felt that the awareness among the farmers regarding the provisions of the Act is still not to the extent where they can understand the importance of the registration of the traditional farmers' varieties. Due to the low response for the registration of farmers' varieties, the limit of three years time have been enhanced to 5 years for the registration of farmers' varieties, from the date of notification of any species, through the Gazette Notification G.S.R.783(E) dated 27th October,2009. It is hoped that this extension in the time limit shall provide an opportunity to the farmers' and farming communities to get their traditional varieties registered.

9.1.4 A project entitled 'Rice-biodiversity Conservation and Training on Farmers Rights in Jharkhand and Meghalaya' with an outlay of Rs. 28.90 lakhs for three years was sanctioned to Gene Campaign, New Delhi with an aim of capturing and conserving rice biodiversity of Jharkhand and Meghalaya along with creation of awareness about PPV&FR Act among the rural and tribal communities of the two states.

9.2 National Gene Fund

9.2.1 The constitution of the National Gene Fund has been done as per the DoAC, Ministry of Agriculture, Gol order No. 1-11/2005-SD-V/(Part) dated 26th March, 2007. A separate bank account for National Gene Fund was opened with the first release of Rs. 50.00 lakh by the DoAC, Ministry of Agriculture, Gol vide their order No. 1-1/2005-SD-V/(Part) dated 28th March, 2007. Presently, with the accrued interest on the deposits, the National Gene Fund has more than Rs. 56.00 lakh in balance. The National Gene Fund will be credited with funds from different sources such as:

- i) Grant from Govt. of India [Rs. 200.00 lakhs approved in the EFC for current Plan].
- Annual Fee fixed on the sale of seeds of the registered varieties [Amount fixed vide Gazette Notification S.O. 2182(E) dated 26th August, 2009].
- iii) Amount received from Benefit sharing under section 26
- iv) Amount received from Compansation under section 41
- v) Funds received as donation from any National or International Organisation
- 9.2.2 Constitution of 'Plant Genome Savior Community Award'

As per the provisions of the Rule 70(2), which defines the manner of applying the Gene Fund created under section 45 of the Act,

"The Gene Fund shall be applied for meeting the following purposes in accordance with the priority made hereunder:

- i) To support and reward farmers, community of farmers particularly the tribal, rural communities engaged in conservation, improvement and preservation of genetic resources of economic plants and their wild relatives particularly in areas identified as agro-biodiversity hot-spots."
- ii) Dispersal of funds for benefit sharing
- Under these provisions, the 'Plant Genome Savior Community Award' have been constituted. These Awards shall be annual and there shall be maximum of 05 Awards of Rs. 10.0 lakhs each. The Awards shall be conferred from 2009-10 financial year.
- iv) To support conservation and sustainable use of Genetic Resources

9.3 Awareness Programmes

9.3.1 Centre for Research on Plant Varieties and Farmers' Rights Protection and Training in North India: The Centre was established at Punjab Agricultural University (PAU), Ludhiana with the financial assistance of the PPV&FRA to create awareness about PPV&FR Act 2001 and to help the farmers in filing the

applications for registration. The University took-up a multi-pronged approach for the purpose through publications, Kisan Melas, training-cum-awareness programmes, etc. Till the end of the financial year 2009-10 and the project, more than two lakh farmers, four hundred students/ extension scouts, 200 scientific and developmental staff and others were made aware of the PPV & FR Act and its various provisions.

Farmers and the development staff of the Punjab State showed big enthusiasm to know about the provision of the PPV&FR Act. Farmers in large numbers gathered in different Awareness Campaigns organized by the PAU, Ludhiana under the awareness generating project implemented with the financial assistance provided by the PPV and FR Authority.

- 9.3.2 The project on "Establishment of Centre of Excellence for professionally qualified person" was successfully completed by Division of Seed Sceince and Technology, IARI, New Delhi. The centre has developed training modules for different level of trainings and organized specialized training programmes for DUS related issues. The financial assistance provided by the Authority for this project was to the tune of Rs 45 lakhs.
- 9.3.3 In a special awareness drive taken-up bv NGO named а Tamilnadu Scientific Research Organization, Puddukotai District (Tamil Nadu), organized 13 awareness programmes in all the 13 blocks of the district and trained more than 1000 farmers of the area about the various provisions of the PPV&FR Act, 2001 for which the NGO was sanctioned a grant of Rs. 54,270/- from the PPV&FRA.



Awareness Programmes about PPV&FR Act conducted by the NGO in Tamil Nadu in 13 blocks of Puddukottai district were great success

- 9.3.4 A special 02 days training programme targeting the Trainers i.e. Programme Coordinators of KVKs of districts falling under the agro-biodiversity hotspot areas of Chhattisgarh, MP, Orissa etc was organized by the Indira Gandhi Krishi Vishwavidyala, Raipur. The trained Programme Coordinators will now organize awareness camps in the villages and will also include the awareness lectures on PPV&FRA in other trainings to be organized by them.
- 9.3.5 With a view to create awareness about the PPV&FR Act in the North Eastern hill States, eleven awareness programmes were organized in different states through ICAR Regional Centre for NEH Region, Shillong and Assam Agricultural



IGKV, Raipur developed and printed the Course Compendium for the Programme Coordinators Training

University, Jorhat for which funds were made available by the Authority.



Training-cum-Awareness Programme at Assam Agricultural University, Jorhat

9.3.6 A training programme organized at KVK, Chinyalisaur, Uttarkashi was attended by large number of farmers and development workers.





- 9.3.7 The awareness programme organized by Bidhan Chandra Krishi Viswavidyalaya, Kalyani, Nadia was a successful event.
- 9.3.8 PPV&FR Authority released funds to the tune of Rs. 20,22,270/- for organization of more than 40 Awareness Programmes at various SAUs, ICAR Institutes and NGOs. A list of the releases made to different institutions is as under:

| S. No. | Released to | Purpose | Amount Released (in Rs.) |
|--------|--|---|-----------------------------|
| 1. | Tamilnadu Scientific Research Organization, Puddukotai District (Tamil Nadu) | 13 Trainings in 13 Blocks of the district | 54,270 |
| 2. | Vivekananda Parvatiya Krishi Anusandhan Shala, Almora | 01 Training at KVK, Chinyalisaur, Uttarkashi | 60,000 |
| 3. | ICAR Res. Complex for NEH Region, Umroi Road, Umiam, Meghalaya | 01 Awareness Programmes at Nagaland | 60,000 |
| 4. | ICAR Res. Complex for NEH Umroi Road, Umiam, Meghalaya | 02 Awareness Programmes at Tripura & Meghalaya | 120000 |
| 5. | C.S. Azad University of Agriculture & Technology, Kanpur – 208 002 | 04 Awareness Programmes at Banda, Aligarh, Mainpuri & Firozabad | 240000 |

| S. No. | Released to | Purpose | Amount Released (in Rs.) |
|--------|--|---|-----------------------------|
| 6. | ICAR Res. Complex for NEH Region, Umroi Road, Umiam, Meghalaya | 04 Awareness Programmes at Mokokchung, Wokha, Phek and Mon districts of Nagaland | 240,000 |
| 7. | Indira Gandhi Krishi Vishwavidyalaya, Raipur – 492 006, Chhattisgarh | 02 days Training for Programme Coordinators of KVKs | 1,38,000 |
| 8. | CSK Himachal Pradesh Krishi Vishvavidyalaya, Palampur (HP) | 02 Awareness Programmes at Banjaura (Kullu Dist) and Dhaulakuan (Sirmour Dist) | 1,20,000 |
| 9. | Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Shalimar Campus, Srinagar | 03 Training Programmes: 01 at Main Campus + 02 at KVKs | 1,80,000 |
| 10. | Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur- 482 004 | 02 Awareness Programmes at Rewa and Jabalpur | 1,20,000 |
| 11. | Rajasthan College of Agriculture, MPUA&T, Udaipur | 04 Awareness Programmes at KVKs, NAIP Seed Producers and University Scientists | 2,40,000 |
| 12. | Faculty of Agriculture, Assam Agricultural University, Jorhat | 04 Awareness Programmes at KVK Karimganj, Hort. Res. Station, Kahikuchi, RRS, Gossaigaon and RRS, Nagaon | 2,40,000 |
| 13. | Secretary, ISEE Indian Agricultural Research Institute, New Delhi | 01 Awareness Programme at IVRI, Izzatnagar during National Seminar of the ISEE | 30,000 |
| 14. | Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur- 482 004 | 02 Awareness Workshop at Jabalpur | 1,20,000 |
| 15. | Bidhan Chandra Krishi Viswavidyalaya, P.O. Kalyani, Dist. Nadia – 741235 WB | 01 Awareness Workshop | 60,000 |

- 9.3.9 Authority is developing a Documentary Film, both in English and Hindi for mass viewing on the Agro-biodiversity hotspots. Also, a film, in 'Nukkad Natak mode', on Farmers' variety registration is being prepared and will be released soon. These films will be distributed to the stakeholders for creating Awareness at different levels.
- 9.3.10 On the website of the Authority, a section containing FAQs is being maintained and regularly upgraded as and when required.

9.4 Publications in Hindi and Other Activities

9.4.1 All issues of Plant Variety Journal of India are published in bilingual mode that is in Hindi and English.

- 9.4.2 The website of the Authority is maintained both in Hindi and English.
- 9.4.3 All DUS Test Guidelines are published in bilingual mode.
- 9.4.4 The Annual Report of the Authority is published in bilingual mode.
- 9.4.5 The lectures delivered by the officials of Authority were in Hindi, English and other local languages such as Bengali, Punjabi etc.

9.5 Liaison with other Organizations

- A Group Discussion on 'Genome Analysis of Race 77 of Wheat Rust' was held at PPVFRA, New Delhi on 14th May, 2009 under the Chairmanship of Dr. S. Nagarajan.
- Dr S. Nagarajan, Dr P.K. Singh and Mr. D.R. Choudhury delivered lectures at Awareness Workshop for State Government Officials and Farmers organized by Chaudhary Charan Singh Haryana Agricultural University, Hisar, Haryana on 27.06.2009.
- Mr. D.R. Choudhury delivered lecture at 'Training-cum-Awareness Workshops' at KVK, Faridkot and KVK, Bhatinda organized by Punjab Agriculture University, Ludhiana on 23 and 24 July, 2009 respectively.
- Dr Manoj Srivastava attended the Sensitization Meeting of Temperate Fruit and Nut Crops for DUS Testing at Central Institutute of Tropical Horticulture, Srinagar on August 11-12, 2009.
- A delegation led by Dr. S. Nagarajan, Chairperson, PPV&FRA along with Shri R.K. Trivedi, Shri D.R. Choudhury, Shri D.S. Rajganesh and Dr. A.K. Singh visited United States of America from August 23 to September 05, 2009. The visit was designed to study the DUS Testing, legal framework at several DUS test sites and at Seminis Vegetables, Sacramento (Caifornia), University of California (Davis), Delta & Pine Land (Mississippi), Illinois Crop Improvement Centre etc and participated in the training at USPTO (Alexandria). This visit was funded by American Seed Trade Association.
- Lecture on 'Implementation of PPV&FRA' at '11th Executive Development Programme in Agricultural Research Management' on August 24, 2009 at NAARM, Hyderabad was delivered by Dr. P.K. Singh.
- Dr. A.K. Malhotra and Dr. P.K. Singh held discussions with the representatives of Tree Growers' Association of Coimbatore at Institute of Forest Genetics & Tree Breeding, Coimbatore. Dr. A.K. Malhotra, Registrar-General released a Book on 'Introduction to Field Oriented Forest Entomology' edited by John Prasanth Jacob, IFGTB, Coimbatore.

- Dr. Manoj Srivastava delivered a lecture in the training programme on 'Principles and Procedures of DUS testing of Vegetable Crops' at DSST, IARI, New Delhi on 03.11.2009.
- Dr P.K. Singh delivered invited Lecture on 'Agro-Biodiversity Conservation for Sustainable Agricultural Production: the PPV&FRA's Efforts' at Special Session on 'Biodiversity and Sustainable Development' on 7th January, 2010 at 9.00-13.00 hrs on the occasion of International Biodiversity Year-2010 and Indian Science Congress at Thiruvananthapuram.
- Dr P.K. Singh delivered Training Lecture on the occasion of Indian Forest Service (IFS) Mid Career Training (MCT) Programme Phase III at ICFRE, Dehradun on 15.01.2010.
- Dr. A.K. Malhotra and Dr. Manoj Srivastava attended the 'Meeting for Finalization of Descriptors for three genera of Orchids' at NRC for Orchids, Sikkim on February 24-25, 2010.
- Dr. P.K. Singh delivered lecture at Awareness Workshop on PPV&FR Act held at CCSHAU Regional Research Station, Uchani, Karnal under the Chairmanship of Dr Arvind Kumar, DDG (Education), ICAR on 13.03.2010.
- Dr. P.K. Singh delivered invited Special Lecture on 'IP Management and Commercialization with Special Reference to PPV&FR Act' at ICAR Zonal Technology Management and Business Planning and Development (ZTM&BPD) Meeting-cum-Workshop –North Zone-I on March 19th, 2010 at IARI, New Delhi.

10. ACTIVITIES RELATED TO AUTHORITY

10.1Meetings of the PPV&FR Authority

The PPV&FR Authority established under sub-section (1) of Section 3 of the PPV &FR Act conducted three meetings during the year 2009-10 including the special meeting on 7th December, 2009 regarding adoption of the Annual Accounts of the Authority. The two regular meetings were held on 29th September, 2009 and 12th March, 2010. Some of the important issues approved by the Authority include:

- Approval of Recruitment Rules for 21 new posts approved in the EFC for the Eleventh Plan Period.
- Appreciation and adoption of the report of the Task Force constituted by the Authority under the Chairmanship of Dr. M.P Nayar, Former Director, Botanical Survey of India for identifying 22 Agro biodiversity hotspots in different agro-ecological regions of India which has been published in two volumes.
- Approval of Plant Genome Savior Award (Section 45 of PPV&FR Act read with Rule 70) for the farmers/community of farmers particularly the tribal and rural communities engaged in conservation, improvement and preservation of genetic resources of economic plants and their wild relatives particularly in areas identified as agro biodiversity hotspots.
- Approval of scheme for Medical coverage for the employees of the Authority.
- Approval of the Budget Estimates for Financial Year 2010-11.
- Construction of New PPV&FRA Campus (Plant Authority Bhawan) and establishment of regional offices of the Authority at Guwahati and Ranchi.

10.2 Meeting of the Scientific Advisory Committee

The 5th Meeting of the Scientific Advisory Committee, constituted as per the provisions of Rule 18 (2) of the Act, to advice the Authority on various issues, was held on 7th August, 2009 at New Delhi under the Chairmanship of Dr. H. K. Jain, Ex-Director, IARI, New Delhi. The SAC emphasized the need for development of procedure for the protection of landraces and traditional varieties of cultivated plants which have a special niche in Indian agriculture and are national assets.

The committee also recommended the constitution of a separate technical committee on perennial horticultural crops to advice on the complexities of technical

issues expected to be encountered during the process of registration of perennial horticultural corps. The SAC further advised the crops to be taken up on priority for registration in the second phase. The Chairman and members of SAC appreciated the efforts of the Authority towards sensitization programmes and workshops conducted in different parts of the country and in local languages. They further suggested for organising such programmes in other places also.

10.3Meeting of the Programme, Planning and Policy Committee

The 4th Meeting of the Programme, Planning and Policy Committee under the Chairpersonship of Ms. Radha Singh, Ex-Secretary, DoAC, New Delhi was held on 11th December, 2009. Seven members viz. Dr. P.L. Gautam, Chairman, National Biodiversity Authority, Sh. Manoj Kumar Singh, IAS, Commissioner, Rural Development, Govt. of UP, Dr. P.S. Minhas, Director of Research, Punjab Agricultural University, Ludhiana, Dr. Nazeer Ahmed, Director, Central Institute for Temperate Horticulture, Srinagar, Dr. S.K. Sharma, Director, National Bureau of Plant Genetic Resources, New Delhi, Dr. S. Edison, Ex-Director, CTCRI, Dr. N. Krishna Kumar, IFS, Director, Institute of Forest Genetics and Tree Breeding, Coimbatore and Dr. P.K. Singh, Registrar as Member-Secretary attended this meeting Dr. S. Nagarajan Chairperson, the Registrar-General Dr. A.K. Malhotra, IFS and other officials of the Authority also attended the meeting. Along with the on-going activities of the Authority, issues related to the building of office campus for PPV&FRA, initiation of special tests and accreditation of laboratories under the provisions of the Act, proposed amendments in the rules, annual fee form, funding of NGOs, plant genome savior awards, opening of field gene banks, establishment of regional offices etc were some of the other important issues discussed in detail and necessary action points were finalized.

10.4Meeting of Project Appraisal Committee

Two meetings of the Project Appraisal Committee under the Chairmanship of Dr. B.L. Jalali, Ex. Director Research, Chaudhary Charan Singh Haryana Agricultural University, Hisar were held in months of July, 2009 and March, 2010 to review the on-going projects and to discuss the new projects submitted to PPV&FRA for funding. All ongoing projects which had completed one year or more were reviewed and necessary recommendation were given for each of them. More than 30 new projects were discussed in the two meetings, out of which 12 were recommended for funding from PPV&FRA.

10.5Visits Abroad

10.5.1 Visit to DUS Test Sites and Research Centre in United States of America

An official delegation led by Dr S Nagarajan, Chairperson, PPV&FRA visited several DUS test sites, Research centres, Seed certification centres, Co-operatives in US and US PTO from 23rd August - 05th September, 2009. The visit was facilitated by ASTA

(American Seed Trade Association). DUS test procedures in vegetable(s), commercial species (Cotton) and other crops were discussed. Contracts and licensing of registered plant varieties, seed certification system at California and Illinois were also discussed. The team was also exposed to latest developments in high throughput DNA sequencing lab at Delta Pine Land Company, Trait Introgression programme at Illinois Foundation Seeds etc.



Finally, from August 31-September 2, the delegation also visited the US Plant Variety Protection Office at Maryland and interacted with Dr Paul Zankowski, PVPO commissioner and had an overview of US PVP Act, Rules and Regulations, US PVPO operations, application processing procedure, database, quality assurance review, relationship of breeders with PVP officials and also met several examiners for a thorough discussion on the issues of Plant variety application(s) etc. Another three day training programme was also conducted at Global Intellectual Property Academy(US Patent and Trademark Office), Alexandria, where several industry representatives, plant breeders, patent attorneys and consultants made presentation about recent developments in US plant variety protection Act, US Patent Act, UPOV system of plant variety protection, legal issues and trade related matters.

10.5.2 Visit to Rome for Participation in the Second World Seed Conference

Dr. Manoj Srivastava, Registrar (Horticulture) was a member of the Indian delegation which participated in the Second World Seed Conference held at Rome (Italy) during 8-10 September, 2009. This conference was specially meant for policy makers, government official, seed companies, breeder associations, stakeholders (certification agencies, seed analysts, seed traders, technology companies and academic institutions), farmers' organisations, consumer organisations and international breeding and seed research centres. Issue of Farmers' Rights and privileges to the farmers was raised by Dr. Srivastava which was discussed at length.

Some of the main recomendations of the World Seed Conference are :

- I. For providing food security through conservation, plant genetic resource availability, multi system of access and benefit sharing the ITPGFRA plays an important role.
- II. Effective system of plant variety protection has been developed by UPOV. Intellectual property protection is crucial for sustainable contribution to plant breeding and seed supply.
- III. ISTA has established seed quality determination which is an important ingrediant for successful agricultural production.
- IV. Strong growth in international seed trade for benefit of farmers is due to internationally acceptable certificate on phytosanitary measures, laboratory testing, varietal certification etc.

10.6 Release of Books and Manuals

10.6.1 Release of book on Agro-Biodiversity Hotspots

The PPV&FR Authority constituted a Task Force, chaired by Dr M. P. Nayar, Ex. Director(Botanical Survey of India, Kolkata), that identified 22 hotspots in different agro-ecological regions and the report has been published in two volumes. These were released by Sh. Jairam Ramesh, Hon'ble Minister of State (Environment and Forests), Govt of India, in presence of Prof M S Swaminathan, Hon'ble MP (Rajya Sabha), Dr. S. Nagarajan, Chairperson (PPV&FRA), Dr. P.L. Gautam, Chairman(National Biodiversity Authority), Dr. M. P. Nayar, Dr. K. N. Nair (NBRI) and Ms. Sybille Suter (Country Director, Swiss Agency for Development and Co-operation)at a function held at M

S Swaminathan Research Foundation, Chennai, on August 19, 2009. This two volume treatise will serve as an important reference in augmenting sovereign rights over indigenous Agro-biodiversity. A National Consultation on "Management of Agrobiodiversity Hotspots in an era of climate change" was also organised in association with National Biodiversity Authority, Chennai and MSSRF, Chennai. Many scientists, Biodiversity conservation experts, representatives from farming communities and civil society also participated in this consultation.



Release of Agro biodiversity Hotspots Volumes by Shri Jairam Ramesh, Hon'ble Minister of State at the MSSRF

10.6.2 Release of Gene Bank Manual

Section 19 of PPVFR Act prescribes that DUS (Distinctiveness, Uniformity and Stability) test should be conducted once seeds and DUS test fee have been deposited by the applicant. Rule 29(10) prescribes that seeds and parental lines of varieties under registration submitted for DUS test and special tests should be deposited at the National Gene Bank of PPV&FRA. Under Sec 27, the applicant/breeder should deposit seeds/propagating material including parental lines of hybrids of registered variety for

rejuvenation purposes in future, if needed. The National Gene Bank of PPV&FRA is established at the NBPGR old campus for "medium term storage" of "orthodox" or "true" seeds (e.g., rice, wheat, sorghum, maize, tomato, rapeseed & mustard etc.) of candidate varieties for registration purpose at PPV & FRA. A manual "Guidelines for Storage and Maintenance of Registered Plant Varieties in the National Gene Bank" has been authored by Shri Dipal Roy Choudhury, Joint Registrar. This manual describes the process for handling orthodox



Release of Gene Bank Manual by Sh. T. Nanda Kumar, Secretary (DoAC)

seeds along with their storage and maintenance for plant variety protection, the legal issues under the PPV & FR Act, 2001, requirements of supply of seeds by maintaining specific seed quality standards, medium-term storage during protection period, compulsory licensing and other issues which makes Authority gene bank distinct from other gene banks where normally "germplasm" is being conserved. The manual will act as legal referral point on matters relating to storage of seeds and planting material of protected varieties under the law. It was released by Sh. T. Nanda Kumar, Secretary (Dept. of Agriculture & Cooperation, Ministry of Agriculture) in a function held on December 21, 2009 at NASC complex, New Delhi.

10.6.3 Release of DUS Test Guidelines

The PPV&FR Authority has so far initiated registration of plant varieties of 21 notified crop species. Also, the Distinctiveness, Uniformity and Stability (DUS) Test Guidelines for 8 vegetable crops namely Potato (*Solanum tuberosum* L.), Garlic (*Allium sativum* L.), Onion (*Allium cepa* L.), Tomato (*Lycopersicon lycopersicum* L.), Brinjal (*Solanum melongena* L.), Cabbage (*Brassica oleracea* L. var. capitata), Cauliflower (*Brassica oleracea* L. var. botrytis) and Okra/Lady's finger [Abelmoschus esculentus (L.) Moench], 8 oil seed crops namely Mustard (*Brassica spp.*), Groundnut (*Arachis hypogaea*)

L.), Castor (*Ricinus communis* L.), Lineseed (*Linum usitatissimum* L.), Sesame (*Sesamum indicum* L.), Sunflower (*Helianthus annuus* L.), Safflower (*Carthamus tinctorius* L.) Soyabean [*Glycine max* (L.) *Merrill*], also one fruit tree, one flower viz. Mango (*Mangifera indica* L.) and Rose (*Rosa spp.* L.) were finalized and published in the Plant Variety Journal of India. Guidelines for vegetables, mango and flowers were released by Dr R.S. Paroda, Ex. Secretary DARE & DG, ICAR, and guidelines for eight oilseed crops were released by Dr V. L. Chopra,



DUS test guidelines being released by Dr. R.S. Paroda, Ex-DG, ICAR

Ex. Member, Planning Commission who were the Distinguished Guests at the function on granting Registration of Farmers' Varieties on 21st December, 2009 at Lecture Hall, NASC Complex, New Delhi. The Chief Guest for the function was Shri Sharad Joshi, Hon'ble Member of Parliament (Rajya sabha) and Shri T. Nanda Kumar, Secretary (Agri.), DoAC, Ministry of Agriculture was the Guest of Honour.

10.7 Construction of Plant Authority Bhawan

By the orders of the Hon'ble Minister of Agriculture, Government of India, 7.5 acres of land belonging to IARI at Todapur site, New Delhi was allotted to the Protection of Plant Varieties and Farmers' Rights Authority in November, 2005, for construction of its office and other buildings. Out of this IARI has transferred 2.466 acres of land to PPV&FR Authority. Out of this transferred land 2.201 acres is under the unauthorized and illegal occupation of Jhuggi dwellers leaving only 0.445 acres of land for construction of the office complex. The balance of IARI land measuring approximately 5.034 acres is likely to be transferred by IARI after the settlement of dispute with Salwan Education Trust which is before the Hon'ble High Court. The PPV&FR Authority proposes to construct the office complex (Plant Authority Bhawan) in this piece of land and further it will expand later, on receiving of the remaining land.

The Authority proposes to invite "Expression of Interest" (E.O.I.) from Govt. / Public Sector Organisation for Construction on turnkey basis of an Office complex at an estimated cost of Rs. 20 crores by placing it on the website and advertisement in leading newspapers, detailing the scope of work and requirement of the Authority.

10.8 Human Resource Development Activity

• Dr. Ramesh Kumar, Senior Technical Officer participated in a two days training programme on "IPR and Patenting System in India" held on 28-29th April,

2009 at the National Institute of Intellectual Property Management (NIIPM), Nagpur.

- Sh. Umakant Dubey, Deputy Registrar and Sh. Rabi Raman Pradhan, Legal Adviser participated in a two day training programme on "Patent Search" held on 9-10th July, 2009 at NIIPM, Nagpur.
- To help the staff of the Authorty in discharging their responsibilities in a better way one day in house training programme was organised on 22nd Aug, 2009, on "Office Procedure in Administrative and Financial Matters" and Sh. Alok Jawahar, Section Officer (DoAC, Ministry of Agriculture) and Sh. Pushpanayak, Administrative Officer from NDRI, Karnal interacted with the staff of the PPV&FR Authority and delivered lectures.
- Sh. Arvind Kumar Rai, Computer Assistant, participated in 5 days programme on e-Suraksha at C-DAC, Mohali during Nov 23-27, 2009.
- Dr. A. K. Malhotra, Registrar-General and Dr. D. S. Pilania, TA participated in the "Global Biosafety Management Program" organised by Sathguru Foundation-Cornell University, USA at Goa during March 27-31, 2010.

11. Financial Report

The Accounts of the Authority were maintained on the conventional single entry system upto the financial year 2007-08. Now, for the last two years, the accounts are being maintained on accrual system of accounting i.e. double entry system of accounting. The necessary accounting policies have been formulated on the basis of accounting standards issued by the Institute of Chartered Accountants of India. Proper books of accounts i.e. cash book, ledger, journal etc. are being maintained. The accounting principle of revenue and expenditure recognition is being applied cautiously. The trial balance is prepared each month. The bank statement and cash book is also reconciled every month.

Finally, the accounts for the financial year 2009-10 have been prepared on accrual system of accounting and have been approved by the Competent Authority. As per the instructions of the Comptroller and Auditor General of India, the accounts of the Authority prepared in the prescribed format along with the necessary statements have been submitted to the CAG office before the last date of submission i.e. 30.06.2010. As a laid down procedure, the CAG office will appoint an audit team for conducting the transaction audit and certificate audit in due course.

The Authority has received a sum of Rs 536 Lakhs as Grant in aid during the year 2009-10. Out of the total grant received and the opening balance of the previous year amount Rs 117.33Lakhs, the Authority has utilised Rs 638.39 Lakhs(97.7%) till the end of the financial year, on cash basis. The utilisation certificate to this effect has been submitted to the DoAC, for their information.

A copy of the Balance Sheet, Income and Expenditure Account and Receipt and Payment Account has been placed as Annexure 7.

12. VISIT BY DIGNITARIES

- A meeting of the 3rd Indo-US Joint Working Group on Agrobiotechnology was held at New Delhi during 23 24th April, 2009.
- Delegate from US Embassy visited the PPV&FR Authority on 4th May, 2009 and had discussion with Dr. S. Nagarajan, Chairperson and other senior officials of the Authority.
- A meeting of the Indo-French Joint Working Group was convened at NASC Complex on 22nd October, 2009.
- Senior Officials of the Nigerian Government had discussions with Dr. S. Nagarajan, Chairperson and other Officials of the PPV&FR Authority on 3rd December, 2009.
- A meeting with Mr. David J. Spielman, Research Fellow, Knowledge, Capacity & Innovation Division from IFPRI, Washington D. C. was held on 24th February, 2010 to have discussions on ICAR projects and IPR issues.
- Mrs. Philippe Beyries, Counsellor (Agriculture) from French Embassy had discussions with Chairperson on 25th March, 2010. The delegate was apprised about the achievements of the Authority.

Annexure 1 Members of PPV & FR Authority (As on 31.3.2010)

| | Dr. S. Nagarajan Chairperson PPV & FR Authority, NASC Complex DPS Marg, Opp. Todapur Village New Dehi-110012 | Chairperson |
|-----|--|-------------|
| Mem | bers: | |
| 1. | Dr. Gurbachan Singh Agriculture Commissioner Department of Agriculture & Cooperation, Ministry of Agriculture Government of India, Krishi Bhavan, New Delhi – 110 114 | Ex-officio |
| 2. | Dr. Swapan Kumar Dutta Deputy Director General (Crop Sciences) Division of Crop Science, Krishi Bhavan, New Delhi – 110 114 | Ex-officio |
| 3. | Ms.Upma Chawdhry Joint Secretary (Seeds) Department of Agriculture & Cooperation, Ministry of Agriculture Government of India, Krishi Bhavan, New Delhi – 110 114 | Ex-officio |
| 4. | Dr. Gorakh Singh Horticulture Commissioner Department of Agriculture & Cooperation, Ministry of Agriculture Government of India, Krishi Bhavan, New Delhi – 110 114 | Ex-officio |
| 5. | Dr. S. K. Sharma Director National Bureau of Plant Genetic Resources, Pusa Campus New Delhi – 110 012 | Ex-officio |
| 6. | Dr. S. Natesh Adviser Grade – I Government of India, Department of Biotechnology CGO Complex, Lodi Road New Delhi – 110 003 | Ex-officio |
| 7. | Shri Satish Chandra Joint Secretary & Legal Advisor Department of Legal Affairs, Ministry of Law & Justice Government of India Shastri Bhawan, New Delhi-110 001 | Ex-officio |

| 8. | Joint Secretary (dealing with Biosafety) Government of India, Ministry of Environment & Forests Paryawaran Bhawan CGO Complex, Lodhi Road, New Delhi – 110 003 | Ex-officio |
|-----|---|---|
| 9. | Smt. Rachel Chatterjee, IAS Principal Secretary, Agriculture, Government of Andhra Pradesh D-Block, 1 st Floor, Room No. 273 ecretariat Office, Hyderabad | Ex-officio |
| 10. | Dr. S. N. Puri Vice Chancellor Central Agricultural University, Manipur, Imphal – 795 001 | Ex-Officio |
| 11. | Shri Roshan Lal, IAS Finance Commissioner & Principal Secretary, Agriculture Room No. 430, 4 th Floor, Sector – 17, New Haryana Secretariat Building, Chandigarh – 160 017 | Ex-officio |
| 12. | Shri Raju Barwale Managing Director Maharashtra Hybrid Seed Corporation Ltd. (Mahyco), Jalna – 431 203 Maharashtra | Nominated Seed Industry Representative |
| 13. | Shri A.C. Zonunmawia Coordinator & Chairman, Centre for Environment Protection (CEP) B-27/1, Tuikual South Aizawl – 796 001, Mizoram | Nominated Tribal Representative |
| 14. | Shri P. Narayanan Unny Navara Eco Farm, Karukamani Kalam, Chittor College P.O. Distt. Pallakad, Kerala – 678 104 | Nominated Farmers' Representative |
| 15. | Dr. (Mrs.) Vanaja Ramprasad Managing Trustee, Green Foundation, 570/1, Padmavathi Nilaya 4 th cross, 3 rd Main, N.S. Palya, BTM 2 nd Stage, Bangaluru – 560 076 Karnataka | Nominated women's Representative |
| Mem | per-Secretary : | |
| | Dr. A.K. Malhotra, IFS Registrar General PPV & FR Authority, NASC Complex, DPS Marg, Opp. Todapur Village, New Dehi-110012 | Ex-officio Member Secretary |

Annexure 2 Details of Human Resource (As on 31 March 2010)

| Name of the post | Filled posts | Vacant posts | Remarks |
|---|-----------------|---|--------------------------------------|
| Dr. S. Nagarajan Chairperson Pay Scale – Rs. 80,000 (fixed) | 1 | - | - |
| Shri Prem Narain Dr. A.K. Malhotra Registrar General Pay Scale – Rs. 37400-67000 with grade pay of Rs. 12000 | 1 | - | Upto 12.06.2009 w.e.f 28.08.2009 |
| Shri R.K. Trivedi Dr. Manoj Srivastava Dr. P.K. Singh Registrar Pay Scale – Rs. 37400-67000 with grade pay of Rs. 8700 | 3 | - | w.e.f 24.04.2009 w.e.f 14.05.2009 |
| Financial Adviser Pay Scale – Rs. 37400-67000 with grade pay of Rs. 8700 | - | 1 (The person has already been selected and likely to join shortly) | |
| Shri D.R. Choudhury Joint Registrar Pay Scale – Rs. 15600-39100 with grade pay of Rs. 7600 | 1 | 1 (The person has already been selected and likely to join shortly) | |
| Shri Uma kant Dubey Dy. Registrar (Tech.) Pay Scale – Rs. 15600-39100 with grade pay of Rs. 6600 | 1 | - | - |
| Shri D.S. Rajganesh Shri R.R. Pradhan Legal Adviser Pay Scale – Rs. 15600-39100 with grade pay of Rs. 6600 | 2 | _ | w.e.f 16.04.2009 |
| Shri Rajeev Talwar Sr. Account Officer Pay Scale – Rs. 15600-39100 with grade pay of Rs. 6600 | 1 | - | - |

| Dr. Ramesh Dr. A.K. Singh Dr. Susheel Kumar Sr. Technical Officer Pay scale Rs. 9300-34800 with grade pay of Rs. 4600 | 3 | - | - |
|---|----|---|---------------|
| Shri Arvind Kumar Rai Shri Sanjay Kumar Gupta Shri Nitesh Kumar Verma Shri Ameer Ulla Siddiqui Ms. Shipra Mathur Ms. Pooja Sethi Computer Assistant Pay scale Rs. 9300-34800 with grade pay of Rs. 4200 | 5 | 1 (The process of filling up the post of Computer Assis- tant has been initiated) | Upto 05.11.09 |
| Dr. D.S. Pilania Technical Assistant Pay scale Rs. 9300-34800 with grade pay of Rs. 4200 | 1 | - | - |
| Total | 19 | 3 | |

Annexure 3 Details of Financial Support provided by the Authority to the Existing DUS Centers

| S. No. | Name of DUS Centre | Crops | Budget for 2009-10 (in Lakh) | Fund released (in Lakh) |
|-----------|--|---|------------------------------------|---|
| 1 | Indian Institute of Vegetable Research, Varanasi | Cabbage, Cauliflower, Okra , Eggplant, Tomato, Pea (vegetable), Kidney bean | 7.50 | Nil |
| 2 | Indian Institute of Horticulture Research, Bangalore | Okra, Eggplant, Tomato, Rose, Chrysanthemum, Pea | 8.00 | 6.00 |
| 3 | Chaudhary Charan Singh Haryana Agricultural University, Hisar | Cotton, Chickpea, Sorghum | 5.00 | 2.00 |
| 4 | Chander Shaker Azad University of Agriculture and Technology, Kanpur | Rapeseed & mustard, Wheat, Linseed | 5.00 | 2.50 |
| 5 | Jawhar Lal Nehru Krishi Vishwa Vidhalya, Jabalpur | Sesame, Niger, Linseed, Lentil, Field pea | 8.00 | 4.00 |
| 6 | Indian Institute for Pulses Research, Kanpur (PC chickpea, Pigeon pea & MULLRaP) | Pigeon pea, Lentil, Green gram, Black gram, Field pea (pulse type), Kidney bean, Chickpea | 8.00 | 5.00 |
| 7 | Tamilnadu Agricultural University, Coimbatore | Paddy, Pearl millet ,Black gram | 5.00 | 4.13 |
| 8 | Directorate of Oilseed, Hyderabad | Sunflower, Safflower, Castor | 5.00 | 4.29 |
| 9 | Aacharya N.G. Ranga Agricultural University, Hyderabad | Green gram, Maize, Black gram | 5.00 | 5.00 |
| 10 | Mahatma Phule Krishi Vidyapeeth, Rahuri | Chickpea, Pearl millet, Sorghum | 4.00 | 4.00 |
| 11 | Directorate of Maize Research, New Delhi | Maize | 7.50 | 7.43 |
| 12 | Indian Agricutlural Research Institute, New Delhi Division of Floriculture and Landscaping, New Delhi Regional Station Karnal Regional Station, Indore Regional Station, Katrain | (Rose & Chrysanthemum) Karnal (Rice) Indore (Wheat) Katrain (Cauliflower and Cabbage) | 14.00 | 1.50 (New Delhi) Nil (Karnal) 4.00 (Indore) 3.00 (Katrain) |
| 13 | National Research Centre for Onion & Garlic, Rajguru Nagar, Pune | Onion, Garlic | 4.00 | 4.00 |

| 14 | Central Potato Research Institute , Shimla (also take care of CPRI, Modipuram) | Potato | 5.00 | 5.00 |
|----|---|--|------|------|
| 15 | Indian Institute of Sugarcane Research, Lucknow | Sugarcane | 5.00 | Nil |
| 16 | Sugarcane Breeding Institute, Coimbatore | Sugarcane | 4.00 | 4.00 |
| 17 | Sugarcane Breeding Institute, Agali | Sugarcane | 3.00 | 3.00 |
| 18 | Sugarcane Breeding Institute, Karnal | Sugarcane | 4.00 | 3.00 |
| 19 | Central Research Institute for Jute and Allied Fibres, Barrackpore | Jute | 8.00 | 7.61 |
| 20 | University of Agricultural Sciences, Dhardwad | Cotton, Soybean, Bread Wheat, Rice, Maize | 5.00 | 3.98 |
| 21 | Central Rice Research Institute, Cuttack | Rice | 5.00 | 4.26 |
| 22 | Directorate of Rice Research, Hyderabad | Rice | 7.50 | 3.75 |
| 23 | Vivekanand Parvatya Krishi Anusandhan Sansthan, Almora | Maize, Kidney bean, Soybean | 4.00 | 4.00 |
| 24 | Govind Ballabh Pant University of Agriculture and Technology, Pant Nagar | Sorghum | 4.00 | 2.00 |
| 25 | National Research Centre for Sorghum, Hyderabad | Sorghum | 5.00 | 1.52 |
| 26 | National Research Centre for Soybean, Indore | Soybean | 5.00 | 5.00 |
| 27 | National Research Centre for Rapeseed and Mustard, Bharatpur | Rapeseed & Mustard, Taramera | 5.00 | 4.00 |
| 28 | Directorate of Wheat Research, Karnal | Bread Wheat | 7.50 | 2.00 |
| 29 | Dr. Punjab Rao Deshmukh Krishi Vidyapeeth, Akola | Pigeon pea, Safflower | 4.00 | 1.00 |
| 30 | Project Co-ordinator, Rajasthan Agricultural University, Mandore | Pearl Millet | 7.50 | 4.99 |
| 31 | Project Co-ordinator Central Insitute of Cotton Research, Coimbatore | Cotton | 7.50 | 4.00 |

| 32 | Central Insitute of Cotton Research, Nagpur | Cotton | 5.00 | 3.82 |
|----|--|--|--------------------|----------------|
| 33 | Punjab Agricultural Universtiy , Ludhiana | Cotton, Wheat | 5.00 | 4.00 |
| 34 | National Research Central for Groundnut, Junagarh | Groundnut | 5.00 | 2.50 |
| 35 | National Research Central for Orchids, Sikkim | Orchids | 5.00 | 3.97 |
| 36 | Project Co-ordinator, Linseed, CSAUA&T, Kanpur | Linseed | 4.00 | 2.00 |
| 37 | Assam Agricultural University, Jorhat | Rice | 4.00 | 2.00 |
| 38 | Indian Institute for Spices Research, Calicut | Turmeric, Ginger, Black Pepper & Cardamom | 5.00 | 2.50 |
| 39 | Jamnagar Agriculutral University, Junagadh | Castor | 4.00 | 4.00 |
| 40 | Central Insitute for Subtropical Horticulture, Lucknow | Mango | 5.00 | 3.50 |
| 41 | National Botanical Research Institute, Lucknow | Rose & Chrysanthemum | 4.00 | Nil |
| 42 | Directorate of Seed Research, Mau | Awareness of PPV&FR Act, 2001 | 4.00 | Nil |
| | | Total | Rs. 232.00 Lakh | Rs 148.25 Lakh |

Annexure 4 Details of Financial Support provided by the Authority to the Projects (2009-10)

| S. No. | Name of Centre | Project | Total Cost of project (in Lakh) | Duration (in year) | Fund Released (in Lakh) |
|-----------|---|--|--|-----------------------|-------------------------------|
| 1. | Birsa Agricultural University (BAU), Ranchi | Maintenance Of Live Repository for Fruit Trees and Medicinal Plant Varieties under <i>in stiu</i> Collection for Eastern India eco system | 72.00 | 3 | 5.00 |
| 2. | M. S. Swaminathan Research Foundation (MSSRF), Chennai | DUS Characterization and Evaluation of Farmers' Varieties of Rice under Conservation in the Community Gene Bank of MSSRF | 23.00 | 3 | 9.00 |
| 3. | Dr. Balasaheb Swant Konkan Krishi Vidyapeeth, Dapoli | Maintenance of Live Repository and Development of Descriptors for Regional important Fruits and Plantation Crops | 143.00 | 3 | 5.00 |
| 4. | S.D. Agricultural University, Sardarkrushinagar | Maintenance Breeding and purification of existing varieties of pulses | 23.03 | 3 | 15.41 |
| 5. | Institute of Forest Genetics and Tree Breeding, Coimbatore | Validation of DUS Testing guidelines for Casuarina and Eucalyptus | 22.68 | 2 | 11.80 |
| 6. | Indian Institute of Spices Research, Kozhikode, Kerala | Establishment of DUS Test Centre for Spices | 14.30 | 2 | 5.00 |
| 7. | Central Institute of Temperate Horticulture (ICAR), Srinagar (J&K) | Validation of DUS International Guidelines under Indian conditions for apple and pear | 19.60 | 3 | 9.80 |
| 8. | Central Institute of Temperate Horticulture (ICAR), Srinagar (J&K) | Validation of DUS International Guidelines under Indian conditions for walnut and almond | 33.00 | 3 | 15.4 |
| 9. | Central Institute of Temperate Horticulture (ICAR), Srinagar (J&K) | Validation of DUS International Guidelines under Indian conditions for apricot and cherry | 19.60 | 3 | 9.80 |

| 10.National Research Centre for Citrus, NagpurFinalizing crop specific DUS testing guidelines for Citrus (Citrus resculata, C. sinensis and L. aurantifolia)45.35635.0011.Gene Campaign, P_235/A, Lane W-15C, Sainik Farms, Khanpur, New Delhi-110 062Agro-biodiversity Conservation and training on Farmers' Rights in Jharkhand and Meghalaya.28.9035.0012.Indian Institute of Horticultural Research, BangaloreStrengthening of DUS Test Centre and Rose Repository at IIHR Research, Bangalore32.51825.0013.National Research Spices, AjmerDevelopment of DUS guidelines and strengthening of DUS Test Centre for Seed Spice crops25.7032.5014.National Bureau of Plant Genetic Resources, NewEstablishment of the National Plant or Varieties protected under spice crops54.5015.Directorate of Medicinal and Research, AnandDevelopment of DUS guidelines and strengthening of DUS Test centre for Seed So raleitoes protected under seeds of varieties protected under Research, AnandS.5.0035.00 | | | | | | |
|---|-----|---|---|--------|---|-----------------|
| J-235/A, Lane W-15C, Sainik Farms, Khappur, New Delhi-110 062and Training on Farmers' Rights in harkhand and Meghalaya.12.Indian Institute of Horticultural Research, BangaloreStrengthening of DUS Test Centre and Rose Repository at IIHR Centre for Seed Spices, Ajmer32.51825.0013.National Research Centre for Seed Spices, AjmerDevelopment of DUS guidelines centres for laboratory and field facilities, digitalization and training in medicinal, aromatic and seed spice crops25.7032.5014.National Bureau of Plant Genetic Resources, New DelhiEstablishment of the National Plant of PUS test protected under the PPV&FRA Act 200154.5015.Directorate of Medicinal and Research, AnandDevelopment of DUS guidelines and strengthening of DUS Test Centres for laboratory and field facilities, digitalization and training in medicinal, aromatic and seed25.7035.0016.Forest College and Research, AnandDeveloping DUS testing criteria ree species27.6035.5017.Indian Institute of Vegetable Research, VaranasiDevelopment of Green House ree species12.42112.4218.Punjab Agricultural University, Ludhian ParkasiSensitization of the farmers of Plant Varieties and Farmers' Right Act11.2632.80 | 10. | Centre for Citrus, | Testing guidelines for Citrus (Citrus reticulata, C. sinensis and | 45.356 | 3 | 5.00 |
| of Horticultural Research, Bangaloreand Rose Repository at IIHRImage: Comparison of Compar | 11. | J-235/A, Lane W-15C, Sainik Farms, Khanpur, | and Training on Farmers' Rights in | 28.90 | 3 | 5.00 |
| Centre for Seed Spices, Ajmerand strengthening of DUS Test Centres for laboratory and field facilities, digitalization and training in medicinal, aromatic and seed14.National Bureau of Plant Genetic Resources, New | 12. | of Horticultural | | 32.518 | 2 | 5.00 |
| of Plant Genetic Resources, New DelhiVariety repository for storage of seeds of varieties protected under the PPV&FRA Act 2001Image: Constraint of seeds of varieties protected under the PPV&FRA Act 200115.Directorate of Medicinal and Aromatic Plants Research, AnandDevelopment of DUS guidelines and strengthening of DUS Test Centres for laboratory and field facilities, digitalization and training in medicinal, aromatic and seed spice crops25.7035.0016.Forest College and Research Institute, CoimbatoreDeveloping DUS testing criteria and Gene Bank Establishment for tree species27.6035.5017.Indian Institute of Vegetable Research, VaranasiDevelopment of Green House Facility (under DUS Centre)12.42112.4218.Punjab Agricultural University, LudhianaSensitization of the farmers of Plant Varieties and Farmers' Right Act11.2632.80 | 13. | Centre for Seed | and strengthening of DUS Test Centres for laboratory and field facilities, digitalization and training in medicinal, aromatic and seed | 25.70 | 3 | 2.50 |
| Medicinal and Aromatic Plants Research, Anandand strengthening of DUS Test Centres for laboratory and field facilities, digitalization and training in medicinal, aromatic and seed spice crops27.6035.5016.Forest College and Research Institute, CoimbatoreDeveloping DUS testing criteria and Gene Bank Establishment for | 14. | of Plant Genetic Resources, New | Variety repository for storage of seeds of varieties protected under | | 5 | 4.50 |
| Research Institute, Coimbatoreand Gene Bank Establishment for tree speciesindextect17.Indian Institute of Vegetable Research, | 15. | Medicinal and Aromatic Plants | and strengthening of DUS Test Centres for laboratory and field facilities, digitalization and training in medicinal, aromatic and seed | 25.70 | 3 | 5.00 |
| Vegetable Research, VaranasiFacility (under DUS Centre)18.Punjab Agricultural University, LudhianaSensitization of the farmers of North Zone about Protection of Plant Varieties and Farmers' Right Act11.2632.80 | 16. | Research Institute, | and Gene Bank Establishment for | 27.60 | 3 | 5.50 |
| University, Ludhiana North Zone about Protection of Plant Varieties and Farmers' Right Act | 17. | Vegetable Research, | | 12.42 | 1 | 12.42 |
| Total Rs.133.93 lakhs | 18. | , 0 | North Zone about Protection of Plant Varieties and Farmers' Right | 11.26 | 3 | 2.80 |
| | | Total | | | | Rs.133.93 lakhs |

| Annexure 5 |
|--|
| Committees of PPV & FRA: Scientific Advisory Committee |

| 1. | Prof. V.L. Chopra Ex Member Planning Commission, Government of India. A3/210 A, Janakpuri New Delhi-110 058 | Chairman |
|----|---|----------|
| 2. | Dr. S. Mauria ADG (IPR & Policy) Indian Council of Agricultural Research Krishi Bhawan New Delhi | Member |
| 3. | Dr. S. Ravi Shankar Director Central Institute for Subtropical Horticulture Indian Council of Agricultural Research Rehmankhera, PO Kakori Lucknow-227 107 | Member |
| 4. | Dr N Vijayan Nair Director Sugarcane Breeding Institute Coimbatore - 641 007 Tamil Nadu | Member |
| 5. | Dr. Amrik Singh Sidhu Director, Indian Institute of Horticultural Research, Hessaraghatta lake post, Bangalore-560 089 | Member |
| 6. | Dr. B. Bera Director of Research Tea Board 14, B.T.M. Sarani Kolkata 700 001 | Member |
| 7. | Dr. H.S. Ginwal Scientist E and Head Division of Genetics and Tree Propagation Forest Research Institute P.O. IPE, Kaulagarh Road Dehradun-248 195 | Member |
| 8. | Dr. S.K. Sharma Director National Bureau of Plant Genetic Resources Pusa, New Delhi-110012 | Member |

| 9. | Dr. T. Janakiram Head Floriculture and Landscaping Indian Agricultural Research Institute Pusa, New Delhi -110 012 | Member |
|-----|---|------------------|
| 10. | Dr. Gyanendra Singh Principal Scientist (Plant Breeding) Directorate of Wheat Research Post Box No 158, Agrasain Marg Karnal 132001 | Member |
| 11. | Dr. S.K. Tripathi Vice President Nuziveedu Seeds Pvt Ltd. 905 Kanchan Junga Building, Connaught Place New Delhi-110 001 | Member |
| 12. | Shri Bhagwan Dass Director Young Farmers' Association Punjab 1, Sirhind Road, Opposite Govt. Press Patiala (PB.) 147 004 | Member |
| 13. | Dr. Manoj Srivastava Registrar-II PPV&FR Authority New Delhi-110 012 | Member Secretary |

Programme, Planning and Policy Committee

| 1. | Ms. Radha Singh Ex-Secretary, DoAC C-2/32, Tilak Lane New Delhi-110 001 | Chairman |
|----|--|----------|
| 2. | Dr. P.L. Gautam Chairman National Biodiversity Authority 475, 9 th South Cross Street, Kapaleeswarar Nagar Neelankarai, Chennai-600 041 | Member |
| 3. | Ms. Upma Chawdhry, IAS Joint Secretary (Seeds) Ministry of Agriculture, DoAC Krishi Bhawan, New Delhi | Member |
| 4. | Sh. Manoj Kumar Singh, IAS Commissioner Department of Rural Development Government of UP Jawahar Bhawan Lucknow | Member |
| 5. | Mr. S.K. Roongta Chairman-cum-MD National Seed Corporation Ltd. Beej Bhawan, PUSA Campus New Delhi-110 012 | Member |
| 6. | Dr. P.S. Minhas Director of Research Punjab Agricultural University Firozpur Road Ludhiana-141 004 [Punjab] | Member |
| 7. | Dr. S. R. Rao Advisor Department of Biotechnology Ministry of Science and Technology Block-2, CGO Complex, Lodi Road New Delhi-110 003 | Member |
| 8. | Dr. T. Ramakrishna Additional Professor of Law and Coordinator Centre for Intellectual Property Rights, Research & Advocacy, IPR Chair, National Law School of India University Nagarbhavi, P.B. 7201 Bangalore-560 072 | Member |

| 9. | Dr. Manmohan Attavar Chairman & Managing Director Indo-American Hybrid Seeds (India) Pvt. Ltd. 17 th Cross, 2 nd A Main, BSK 2 nd Stage Bangalore-560 070 | Member |
|-----|--|------------------|
| 10. | Dr. R.K. Gupta Head Intellectual Property Management Division Council of Scientific & Industrial Research NISCAIR Building, 3 rd Floor, 14, Satsang Vihar Marg Special Institutional Area New Delhi-110 067 | Member |
| 11. | Dr. Nazeer Ahmed Director Central Institute for Temperate Horticulture K.D. Farm, Old Air Field, Rangreth Srinagar – 190007 (J&K) | Member |
| 12. | Director National Centre for Agricultural Economics & Policy Research Post Box No.11305, DPS Marg, Pusa, Library Avenue, New Delhi-110012 | Member |
| 13. | Dr. S.K. Sharma Director National Bureau of Plant Genetic Resources Pusa Campus New Delhi-110 012 | Member |
| 14. | Dr. S. Edison (Ex-Director,CTCRI) Srinidhi, TC No. 13/550 Kesavadasapuram Pattom P.O. Thiruvananthapurum-695004 | Member |
| 15. | Dr. N. Krishna Kumar, IFS Director Institute of Forest Genetics & Tree Breeding P.B. No. 1061, Forest Campus R.S. Puram, Coimbatore-641 002 | Member |
| 16. | Dr. P.K. Singh Registrar - III PPV & FR Authority New Delhi-110 012 | Member Secretary |

Project Appraisal committee

| 1. | Dr. B.L. Jalali Ex-Director of Research, CCS HAU 601, Neelkant Sector-21/C, Part-III Faridabad-121 001 | Chairman |
|----|--|------------------|
| 2. | Dr. S. Mauria ADG (IPR & Policy) Indian Council of Agricultural Research Krishi Bhawan New Delhi | Member |
| 3. | Dr. V.A. Parthasarathy Director Indian Institute of Spices Research Marikunnu P.O. Calicut-673 012 Kerala | Member |
| 4. | Dr. Rajbir Yadav Principal Scientist Division of Genetics I.A.R.I New Delhi | Member |
| 5. | Dr. P.K. Singh Registrar - III PPV&FR Authority New Delhi-110 012 | Member Secretary |

Statutory Committee Extant Variety Recommendation Committee

| 1. | Prof. R. B. Singh, EX. Chairman ASRB, D1/1291, Vasant Kunj, New Delhi-110070 | Chairman |
|----|--|------------------|
| 2. | Dr. G. Kalloo Vice Chancellor, Jawaharlal Nehru Krishi Viswavidyalaya, Jabalpur- 482004 | Member |
| 3. | Dr. S. K. Rao Head, Plant Breeding, Jawaharlal Nehru Krishi Viswavidyalaya, Jabalpur-482004 | Member |
| 4. | Dr. B. M. Prasanna Division of Genetics, LBS Building, IARI, New Delhi-110012 | Member |
| 5. | Dr. F. B. Patil Kritiman Bhavan, Plot no.19, Govind Nagar, RTO, Station Road, Aurangabad- 431005 | |
| 6. | Mr. Manvendra S. Kachole Head, Dept. of Biotechnology, Shetkari Sangathan, Dr. B. R. Ambedkar Vidyapeeth, Aurangabad- 431005 | Member |
| 7. | R. K. Trivedi, Registrar-I, PPV & FRA, DPS Marg, New Delhi-110012 | Member Secretary |

Annexure 6 Distinctive characters of Farmers' Variety for which Registration Certificates have been issued

| S. No. | Category | Applicant | Endorsed by | Сгор | Denomination | Distinct Character |
|-----------|---------------------|---|----------------|---------------------------------|------------------|---|
| 1 | Farmers' Variety | Kichha, Udham | Nodal officer, | Rice (Oryza sativa L.) | INDRASAN | Uniform purple basal leaf sheath color with partly exerted panicle excretion in combination with medium time of maturity, awnless panicle, medium decorticated grain length and width and medium endosperm amylase content. |
| | | Mr. Arun Kumar, President, Rishi Parasar Jaivik Krishi Shodh Samiti, Village Chakarpur, Block Bazpur, Udham Singh Nagar, Uttarakhand | | | HANSRAJ | White decorticated grain color with awnless panicle in combination with very short stem length, positive phenol reaction with long decorticated grain length and long slender grain shape with narrow grain width aromatic rice. |
| | | Mr. Dev Nath Verma, President, Swantarta Sainani Jaivil Krishak Samiti, Village Prem Nagar, Gadarpur, Udham Singh Nagar, Uttarakhand | | | TILAK CHANDAN | Brown color of awns in combination with green basal leaf sheath color, leaf anthocyanin coloration of auricle colorless, presence of leaf collar, straw sterile lemma color, medium grain width and medium slender decorticated grain shape aromatic rice. |

Annexure-7 Protection of Plant Varieties & Farmers' Rights Authority Balance Sheet as on 31st March, 2010

Amount (In Rs.)

| CORPUS / CAPITAL FUND AND LIABILITIES | Current Year | Previous Year |
|---|----------------|----------------|
| CORPUS / CAPITAL FUND | 4,57,82,375.05 | 4,79,82,820.70 |
| RESERVES AND SURPLUS | - | - |
| EARMARKED/ENDOWNMENT FUNDS | - | - |
| SECURED LOANS AND BORROWINGS | - | - |
| UNSECURED LOANS AND BORROWINGS | - | - |
| DEFERRED CREDIT LIABILITIES | - | - |
| CURRENT LIABILITIES AND PROVISIONS | 75,25,181.00 | 46,45,978.00 |
| TOTAL | 5,33,07,556.05 | 5,26,28,798.70 |
| ASSETS | | |
| FIXED ASSETS | 1,38,57,975.00 | 56,53,891.00 |
| Less: Accumulated Depreciation | (83,59,243.65) | (24,97,135.00) |
| NET FIXED ASSETS | 54,98,731.35 | 31,56,756.00 |
| INVESTMENTS-FROM EARMARKED/ ENDOWNMENT FUNDS | - | - |
| INVESTMENTS-OTHERS | - | - |
| CURRENT ASSETS, LOANS ADVANCES ETC. | 4,78,08,824.70 | 4,94,72,042.70 |
| MISCELLANEOUS EXPENDITURE | - | - |
| (to the extent not written off or adjusted) | | |
| TOTAL | 5,33,07,556.05 | 5,26,28,798.70 |
| SIGNIFICANT ACCOUNTING POLICIES | | |
| CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS | | |

Income and Expenditure Account for the Year ended 31st March, 2010

Amount (In Rs.)

| INCOME | Current Year | Previous Year |
|--|----------------|----------------|
| Income from Sales/ Services | - | - |
| Grants/Subsides | 5,36,00,000.00 | 7,00,00,000.00 |
| Fees/Subcrpitions | 23,23,044.00 | 2,84,700.00 |
| Income from Investments | - | - |
| Income from Royality, Publication etc. | - | - |
| Interest Earned | 1,77,502.00 | 6,05,313.00 |
| Other Income | 4,42,451.00 | 2,43,750.00 |
| Increase/(Decrease) in stock of Finished goods and works in progress | - | - |
| TOTAL (A) | 5,65,42,997.00 | 7,11,33,763.00 |
| EXPENDITURE | | |
| Establishment Expenses | 1,68,27,003.00 | 1,18,89,074.30 |
| Other Administrative Expenses etc. | 1,18,32,172.00 | 1,06,57,433.00 |
| Expenditure on Grants , Subsidies etc. | 2,30,77,253.00 | 85,37,209.00 |
| Interest | 12,526.00 | 8,085.00 |
| Depreciation (Net Total at the year-end- corresponding to Schedule 8) | 58,62,108.65 | 9,35,574.00 |
| Prior period Adjustment A/c | 21,89,935.00 | 9,74,787.00 |
| TOTAL (B) | 5,98,00,997.65 | 3,30,02,162.30 |
| Balance being excess of Income Over Expenditure (A-B) | (32,58,000.65) | 3,81,31,600.70 |
| Transfer to special Reserve (Specify each) | - | - |
| Transfer to /from General Reserve | - | - |
| BALANCE BEING SURPLUS (DEFICIT) CARRIED TO CORPUS/CAPITAL FUND | (32,58,000.65) | 3,81,31,600.70 |
| SIGNIFICANT ACCOUNTING POLICIES | | |
| CONTINGENT LIABILITIES AND NOTES ON ACCOUNTS | | |

| | | | | IN THE LEAL FURCE STREAM OF A THE | | | Amount (In Rs.) |
|-----------------------------------|----------------|----------------|----------------|--|----------------|----------------|-----------------|
| RECEIPTS | | Current Year | Previous Year | PAYMENTS | | Current Year | Previous Year |
| 1. Opening Balances | | | | 1. Expenses | | | |
| a) Cash in Hand | | 5,300.00 | 5,000.00 | a) Establishment Expenses | 1,36,23,163.00 | | |
| b) Bank Balances | | | | b) Administrative Expenses | 1,10,61,686.00 | 2,46,84,849.00 | 1,94,35,778.30 |
| Gene Fund | 56,01,998.00 | | | | | | |
| Authority Fund | 1,82,34,625.70 | 2,38,36,623.70 | 62,62,049.00 | | | | |
| 2. Grants received | | | | 2. Payments made against funds | | 2,82,18,738.00 | 2,76,55,152.00 |
| a) From Government of India | | 5,36,00,000.00 | 7,00,00,000.00 | 7,00,00,000.00 for various projects | | | |
| b) From State Government | | 1 | 1 | | | | |
| c) From Other Sources | | 1 | 1 | | | | |
| 3. Income on Investment from | | | | 3. Investments and deposits made | | | |
| a) Earmarked / Endowment Funds | | I | I | a) Out of Earmarked/Endowment Fund | | 1 | 1 |
| b) Own Funds (Other Investments) | | I | I | b) Out of Own Funds (Investment- Others) | | I | I |
| 4. Interest Received | | | | 4. Expenditure on fixed Assets | | | |
| a) On Bank deposits | | 1 | 1 | and Capital Work in Progress | | | |
| b) Loans, Advances etc. | | | | a) Purchase of Fixed Assets (sch 8) | | 24,77,265.00 | 5,29,019.00 |
| Gene Fund | 1,100.00 | | | | | | |
| Authority Fund | | 1,100.00 | 6,04,986.00 | 6,04,986.00 b) Expenditure on Capital Work-in- Progress | | 1 | 1 |
| 5. Advance Received | | 94,974.00 | 43,284.00 | 5. Refund of Surplus money / Loans | | | |
| | | | | b) To the State Government | | 1 | 1 |
| | | | | c) To Other Providers of Funds | | I | 1 |
| 6. Refund of Income Tax | | | 21,187.00 | | | | |

Receipts and Payments for the Year Ended 31st March, 2010

| | | | 6. Advance to Outsiders | 38 | 38,38,436.00 | 64,76,388.00 |
|---|----------------|----------------|--|------|----------------|----------------|
| 7. Recovery of Advance to Outsiders fees (I) | 76,609.00 | 1,29,186.00 | 7. Advance Against DUS Test fees | Q | 6,51,000.00 | 4,32,250.00 |
| 8. Fees / Subscriptions | | | 8. Stamps in Hand | - | 1,75,000.00 | 75,000.00 |
| Application/Registration Fee Re- ceived | 22,29,400.00 | 2,84,700.00 | | | | |
| PVJ Fees | 57,800.00 | 19,800.00 | | | | |
| Fees for Notice of Opposition | 43,500.00 | I | | | | |
| Annual Fees - Gene Fund | 18,000.00 | I | 9. Refundable to DOC | 45 | 45,22,738.00 | |
| Sale of Old Newspapers, Periodicals | 500.00 | | | | | |
| DUS Test Fee Received | 19,60,000.00 | 17,85,000.00 | 17,85,000.00 10. Contribution to Organisation/ institutions | 17 | 17,45,102.00 | |
| Other Fees Received | 2,844.00 | ı | | | | |
| | | | 11. Wrongly Debited By bank | | 16,753.00 | |
| 9. Maturty Of Fixed Deposit | 1 | 1,00,00,000.00 | | | | |
| 10. Refundable to DOC | 57,91,128.00 | I | 12. Advance to Staff | 13 | 13,50,394.00 | 3,95,404.00 |
| 11. Recovery of Advance to Staff | 4,14,668.00 | 69,292.00 | 13. Finance Charges (Interest) | | 12,526.00 | 8,085.00 |
| 12. Opening Difference in Bank | 78,938.00 | 1 | 14. Payments against advance received | | 87,058.00 | 25,000.00 |
| 13. Recovery of Advance as Stamps in Hand | 1,818.00 | 2,415.00 | 15. Fixed Deposit | 1,05 | 1,05,93,574.00 | 1,00,00,000.00 |
| 14. Wrongly Credited by Bank | 10,000.00 | I | 16. Statutory Liabilities Paid | 31 | 31,02,539.00 | 3,52,899.00 |
| | | | 17. Closing Balances | | | |
| | | | a) Cash in Hand | | 5,300.00 | 5,300.00 |
| | | | b) Bank Balances | 67 | 67,41,930.70 | 2,38,36,623.70 |
| TOTAL | 8,82,23,202.70 | 8,92,26,899.00 | TOTAL | 8,82 | 8,82,23,202.70 | 8,92,26,899.00 |
| | | | | | | |

STAFF NEWS

Awards & Honors

Dr. S. Nagarajan Chairperson, PPV& FRA was conferred with the prestigious Dr. M.S. Swaminathan Award for Best Agricultural Scientist for the year 2009-10 by Mr. K. Rosaiah, Chief Minister (Andhra Pradesh) on 15.11.2009 at Hyderabad.

Joining:

- Shri R.R. Pradhan joined as Legal Advisor in the PPV&FR Authority on 16.4.09 on direct recruitment.
- Dr. Manoj Srivastava joined as Registrar (Horticulture) on 24.4.09, on deputation from Punjab Agricultural University, Ludhiana.
- Dr. P.K. Singh joined as Registrar (Forestry, M&AP and Farmers' Rights) on 14.5.09, on deputation from IISR (ICAR), Lucknow.
- Dr. A.K. Malhotra, IFS joined as Registrar General on 28.8.09 F.N., on deputation from his parent cadre i.e., Jharkhand, where he was severing as Principal Chief Conservator of Forests.
- Dr. S.P. Yadav Joined as Plant Variety Evaluator on 01.1.10 on contractual basis.
- Dr. Amit Dixit joined as Plant Variety Evaluator on 10.12.09 on contractual basis.
- Shri Ameer Ullah Siddiqui joined as Computer Assistant on 12.6.09 F.N., on direct recruitment.

Relieving:

- Shri Prem Narain, IAS was relieved on 12.6.09 A.N., for joining the parent cadre after successful completion of the deputation tenure as Registrar General.
- Ms. Pooja Sethi resigned from the post of Computer Assistant for taking up another assignment and was releived on 05.11.09.
- Dr. Om Prakash PVE, was relieved on 28.1.10 after successful completion of contractual assignment in the Authority.