The Joint Workshop on "Post Plant Variety Control of Registered Varieties and Implementation of Plant Breeder's Rights" was organized on 17th December, 2019. Around 60 participants from India and Germany attended the same with the aim to discuss the Post Plant Variety Protection (PVP) system in respective countries. Dr. T. K. Naraththa, Registrar, welcomed all the participants for first workshop under the third phase of Indo-German bilateral cooperation on seed sector development after the successful completion of past two phases. Following brief introduction of eminent scientists and participants from both countries, Dr. K.V. Prabhu, Chairperson of PPV&FRA welcomed the delegates with a brief introduction about the objectives of joint workshop. He stated that post plant variety protection is to be implemented in India however and it is very essential for the protection of registered varieties of plant breeders. Recognition and rewards given to plant breeders is not in organized manner as in European community. European countries are the first to initiate the process of providing rights to the plant breeders and encouraging them to develop new varieties by keeping their intellectual property rights intact. He said that there is a lot of gap between farmer as consumer or customer and farmer as breeder even though the rights of the farmers in breeding and development of plant varieties is being recognized which is unique to India. This has to be understood from the existing procedures and implementation strategies of IPR in Germany wherein farmers are consumers whereas breeders are the producers of good varieties.

In India, the public sector is playing major role in development of varieties of food grains whereas, private sector dominate in non-food grains or otherwise horticulture crops. He informed the delegates that there is a significant difference between registration of plant varieties in India and Germany that in India it is not compulsory to register a plant variety which is going to be sold in market. Therefore, this has to deal with same commodity where some are protected and some are not protected and farmers are being not so well aware of these varieties. Plant varieties are 20-30 folds higher than in Germany in terms of proportion in India. In India, 49% of the
people contributing fully to agriculture and 67 % are connected partially to agriculture (also involved in non-farm sector), so totally about 67-70 % of the community is contributing directly or indirectly to agriculture even today. This is due to small and marginal holdings of the farming communities. As a result, the varietal wealth is likely to be much bigger in India with some varieties are protected and some are not protected apart from that farmers have the right to save their seed, so considering all these there are problems of genetic and physical encroachment of seeds. These are the issues integral to Indian system however, there needs to maintain varietal identity and rewards for breeders and farmers.

Guest of honour Mr. Michael Kessler, Counsellor for Food and Agriculture, Federal Republic of Germany, New Delhi expressed gratitude to Chairperson, PPV&FRA, New Delhi for being involved in plant varietal protection activities. He stated that this project is a flagship of bilateral cooperation of Ministry of Food and Agriculture, Germany and Government of India. This project was original planned in early 2010 and started its activity during 2013. This project was initiated to improve the legal and political frameworks with regards to production and processing of seeds in India targeting the groups involved in seed sector. He said that this project is most rewarding because it has become the platform for exchange of knowledge between scientists and experts from both countries with respect to new activities on plant variety protection control. He concluded by saying that a lot of activities can be undertaken and both the countries continue to work in future with fruitful exchange of activities.

Technical Session I

Dr. (Mrs.). Kerstin Diekman presented "Overview of PVP in Germany/EU including post PVP control of registered varieties and granting of plant breeders' rights (PBR) and the effect for the owner/holder of this intellectual property right". She highlighted that there are two major tasks and responsibilities of BSA Federal Plant Variety Office in Germany (a) granting of plant breeders rights (PBRs) – to protect the intellectual property on plant variety developed from the species of whole plant kingdom. One of the ten examination boards will decide the granting of PBRs based on legality of Plant Variety Protection Law (b) National listing of agricultural and vegetable varieties to protect the users of seeds. One of the ten variety committees will decide the variety to be listed in the descriptive variety lists based on legality of seed act. Any grievances against their decisions can be laid before the nine boards of appeals. Dr. Kerstin clarified that these nine boards of appeal are based on crop sector when asked by the Chairperson, PPV&FRA. There are seven regional testing stations working in different
agricultural and vegetable crops under BSA Federal Plant Variety Office, Hannover, Germany. She said there are more than 100 companies with breeding programmes in agricultural and horticultural species in Germany. Amendment of German Law during 1995 on Plant Breeders’ Rights is in conformity with the act of the UPOV Convention, 1991. Dr. Kerstin elaborated the effects of PBRs on the owner/holder, farmers, conditions of protection and briefly explained the procedure for granting plant breeders rights.

While discussing about entitlement of plant breeder rights, Chairperson, PPVFRA raised a question that whether a breeder or a company from India needs to have residence in EU in order to obtain PBRs. It was clarified from the delegates that a breeder must be a representative of a company legally registered in Germany or European Union for obtaining PBRs. DUS testing in Germany takes place in one or two sites and it may also consider testing in other countries through bilateral co-operation. DUS testing period for regular crops is for 2 years, Cereals for 3 years and ornamentals for 1 year. Examination was done by ten examining boards. Assessment of novelty in EU is done only if a variety present on market less than one year prior to application whereas less than 4 years prior to application in case of outside EU. National Guidelines, UPOV Guidelines and Technical Protocols of CPVO (based on UPOV Guidelines) were followed for technical examination during DUS testing. Dr. Kerstin has summarized about protection of Community Plant Variety Rights at Community Plant Variety Office in European Union. Dr. A. K. Singh raised a question that under researcher’s exemption, whether one can use the protected variety for developing a new variety if it carries a very high value trait (transgene). In response to that, delegates cleared that researchers were free to develop varieties. However, in that event of having developed varieties as well as in case if the gene that governs the trait of interest was patented under patent act, then the researcher or breeder will have to obtain permission from the registered breeder or gene patent holder for commercialization.

Dr. R. C Agarwal (Fmr. Registrar General PPV & FRA) presented “Overview of PVP system in India and impact of registration of varieties in terms of plant breeders/farmers incentives”. He has highlighted that PPV&FR Act, 2001 was enacted to fulfil obligations of TRIPS and it recognizes contribution of farmers in biodiversity conservation by granting them farmers rights which are the main cornerstone for implementation of ITPGRFA. The important part of the act is that farmers are treated equal to the breeder in conserving, breeding and cultivating a plant variety. He explained about the eligibility criteria for registration of new
variety, DUS testing period and period of protection for registered varieties under the act. He also said about the recent modifications in registration procedure of new varieties like DUS testing of parental lines along with hybrids has been recently introduced and all the characters listed in DUS test guidelines are considered as essential characteristics for assessing distinctness of new varieties. Issues and constraints during commercialization of farmers' varieties were also discussed. Impact of recognizing farmers with Genome Saviour Award in respect of their contribution in conserving and registration of traditional varieties under PPV&FR Act (Ex. MushkBudji Rice, Chengalikodan Nendran Banana) reflected in increased market prices and procurement rates by agro industries. He also gave detailed clarifications over recent grape issue raised in Maharashtra. He also cleared that farmers' rights are not applicable under contract farming. He highlighted the new initiatives such as application of DNA fingerprinting technology in IPR protection to complement DUS testing and involvement of third party private DUS testing organizations without any involvement in variety development, authorized by PPV&FRA. Mrs. Friedhilde Trautwein asked whether India is going for privatization of DUS testing centers to which Dr. R. C. Agarwal clarified that any public or private organization not involving in varietal development are allowed for taking up DUS testing in their institution.

**Salient points from Technical session I:**

1. Two major tasks and responsibilities of BSA Federal Plant Variety Office in Germany are (a) granting of plant breeders rights (PBRs) – to protect the intellectual property on plant variety developed from the species of whole plant kingdomProcedure for registration of plant varieties in Germany.

2. Discussed on the effects of PBRs on the owner/holder, farmers, conditions of protection, rules of exemptions and farmer’s privilege

3. The detailed procedure for granting plant breeders rights in Germany/EU were explained

4. Farmers are recognized equal to the plant breeder in conserving, breeding and cultivating a plant variety under PPV&FR Act, 2001

5. Impact of recognizing farmers with Genome Saviour Award in respect of their contribution in conserving and registration of traditional varieties under PPV&FR Act reflected through increased market prices and procurement rates by agro industries.

**Technical Session II**

During the session presentation was made by Mrs. Friedhilde Trautwein on Monitoring of Maintenance of Protected Plant Varieties in Germany/EU under the legal basis of German
PBR Law. BSA office will carryout technical verification of the maintenance of protected varieties through DUS test and it may cancel Commiunity Plant Variety Rights with effect in future if the owner or holder failed to comply with Uniformity and Stability. She explained the important reasons to carryout technical verification such as problems of maintenance indicated in (a) DUS tests, similar varieties (b) Renewal of standard seed sample (c) Post control tests and (d) any information or hints gathered e.g. catalogues, exhibitions, trials, market. She said certified and standard seeds are subjected to post control of seed lots of listed varieties of agricultural and vegetable species. Procedures of PVP cancellation will be initiated if in case maintenance of variety cannot be verified. In second part of presentation, she explained task and responsibilities of FPVO, BSA. Monitoring of maintenance of plant varieties was carried out with collaboration between seed certification agencies, market control agencies and Federal Plant Variety Office. Federal states are responsible for giving advice to farmers regarding regional variety tests and recommendation of listed varieties. They also look after seed certification which is mandatory for agricultural species whereas voluntary for vegetable species besides they also control seed market. FPVO or certification agencies are involved in post control of certified and standard seeds. Mrs. Friedhilde Trautwein concluded her presentation by stressing that Plant Breeder Right is a private right so FPVO office does not deal with licenses, royalties and infringements of breeders. When queried by one of the Indian seed company association representatives if registering parents or parents testing of hybrids was required for protection, it was replied that hybrids were registered only with parents after testing the parents for DUS.

Dr. Elmar Weissmann presented brief overview on legal framework and basis of seed production in Germany. He explained the structure of agriculture in Germany, seed economy and breeding progress in agriculture. Ha briefed about financing of the Seed Sector in Germany and Europe. In Germany and Europe, the seed industry is 100 % in the private sector therefore much competition between seed companies in breeding and developing new plant varieties. Basic principle in Europe is that all users of new genetics have to contribute to the development of new varieties. The ultimate users of seeds are (a) Farmers/producers who buy certified seeds (b) Farmers/producers which use Farm Saved Seed (FSS). Licence fees are the main income of the plant breeding companies. Licence fees are included in the price paid for certified seed, which are mandatory to be paid to registered breeder when plant material is re-sown or re-planted on own holdings (FFS). This encourages the users to buy certified seeds from new varieties. In his
second part of the presentation, detailed information was given on how to manage the intellectual property right successfully as plant breeder in Germany/EU and shared his experience with Seed Trust Administration Ltd. (STV-Saatgut-Treuhandverwaltung GmbH) - private organization for persecution of infringements of PVP in Germany. Dr. Elmar Weissmann clarified the definition for farm used seeds that if the farmer getting basic seed from the breeder and is producing certified seed and take part of this seed for its own use its called farm used seed. Interesting discussions were taken place between the delegates and members from both countries regarding the legal framework called Contractual Star System followed in EU/Germany including Plant breeders, multipliers, seed treatment facilities, distribution organisation companies and subcontracts of distribution organisation. It is interesting to note that Plant breeders/companies have direct contract relations through license agreements with all other groups binding to their tasks and responsibilities.

Salient points from Technical session II:

1. Role of BSA office in monitoring of the maintenance of protected varieties in Germany/EU and legal basis for Plant Variety Protection in Germany was discussed
2. Monitoring of maintenance of plant varieties in Germany/EU was carried out with collaboration between seed certification agencies, market control agencies and Federal Plant Variety Office
3. The ultimate users of seeds like (a) Farmers/ producers which buy certified seeds (b) Farmers/ producers which use Farm Saved Seed (FSS) have to contribute to the development of new varieties in the form of license fees in Germany/EU.
4. Role of Seed Trust Administration Ltd. (STV-Saatgut-Treuhandverwaltung GmbH) - private organization for persecution of infringements of PVP in Germany were discussed.

Technical Session III

Mr. D. S. Raj Ganesh, Legal Advisor, PPV&FR Authority presented "Post registration procedures of PVP system in India". He narrated about rights of breeders, assignment and transmission of rights, authorization of agent and licensee by the breeder, annual and renewal fees to be paid to the authority. He also briefed about farmers rights and community rights, benefit sharing, revocation of registration certificate and compulsory licensing. Dr. K.V. Prabhu asked that is there any case of compensation and benefit sharing to which he answered that we have not yet received any case but had a case of benefit sharing between two companies.
Mrs. Friedhilde Trautwein asked that do you have any case of compulsory licence and who can go for it to which he answered that any such case has not been received yet and any person can apply for compulsory licence by showing two things to the authority that (i) His variety should be in demand (ii) He should be competent enough to produce that variety in sufficient amount and supply it at reasonable prices in market.

Mr. Johannes Peter Angenendt presented typical private-law agreements (license agreements) between plant breeders (PVP holders) and licensed party in Germany, Monitoring of license agreement in Germany/EU. He briefed different terminologies used in seed industry regards to seed market players (Contractual Multiplier/Seed Multiplier/Multiplier, Seed Traffic Control/Official Seed Quality Monitoring Agencies, Seed Certification/Official Seed Quality Inspection, Saatgut-Treuhandverwaltungs GmbH (STV) and Farmers), seed categories (Pre - basic seed, Basic seed, Certified seed, and Farm saved seed) and types of license fees (license fee, fee for captive use and farm saved seed royalties). He clarified that non seeds nothing but seeds which are not certified. Seed Trust Administration Ltd. (STV) is an organisation of Plant Variety Protection Rights Holders in Germany. Mr. Johannes Peter Angenendt explained in detail about core activities and business objectives of STV. STV has adopted several measures for avoiding black market in Germany through monitoring news paper advertisements and Licence Agreement Compliance Audits. Labelling of seeds is done to prevent illegal production and marketing of seeds where blue label indicates certified seeds and white label issued by the PVP holder contains the rules governing the use of farm saved seed. He detailed about sucess stories and special features of STV.

In second part of the presentation, he shared STV’s experience with the collection of royalties for farmer saved seeds in Germany including the management of data necessary for the traceability of the activities of the licensed party. Certified seed price in Germany includes the sum of components such as of production costs (40%), seed cleaning and processing (10%), seed treatment and packaging (10%), Analysis and quality control (5%) and logistics (20%) etc. and Royalty (15%). Organization of seed production in Germany includes integrated seed companies (plant breeding, variety development - seed production - seed marketing) and three step production system (plant breeder/variety owner/company placing the variety on the market - seed Production Company - seed producer (farmer)). Dr. K.V. Prabhu asked whether every company should be the member of STV to which Mr. Johannes Peter Angenendt answered that it is not
compulsory. International perspective on royalty collection systems on farm saved seeds by STV was also briefed.

**Salient points from Technical session III:**

1. Discussed farmers rights and community rights, benefit sharing, revocation of registration certificate and compulsory licensing under PPV&FR Act, 2001
2. Conversation about core activities and business objectives of STV and several measures adopted by STV for avoiding illegal seed production and marketing in Germany
3. Organization of seed production and royalty collection systems on farm saved seeds by STV in Germany.

**Concluding remarks**

Workshop was concluded with final remarks by Dr. K. V. Prabhu, Chairperson, PPV & FR Authority.

(T.K. Nagarathna)
Registrar