

INDIA'S NEW PLANT VARIETY PROTECTION AND FARMERS RIGHTS LAW

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The Indian Parliament has finally passed the Plant Variety Protection and Farmers Rights Act. With this has ended a long and arduous struggle waged for the recognition of the rights of farmers in India's *sui generis* legislation. India has put in place a law to grant Plant Breeders Rights on new varieties of seeds, for the very first time. It has simultaneously provided a Farmers Right. This legislation was necessitated by the commitments that India made in the agreement on Trade Related Intellectual Property Rights (TRIPS) when it ratified the Uruguay GATT Round in 1994. Article 27. 3 (b) of TRIPS which deals with the protection of new plant varieties, offers three options. Protection will have to be granted by a patent, an effective *sui generis* system or by a combination of the two. The *sui generis* system refers to the grant of Plant Breeders Rights, of what kind is not defined, except to say that it should be "effective". India ultimately opted for the *sui generis* option but not without a determined struggle by civil society to stop seed patents.

The government of the day was greatly inclined to accept patents and a large scale propaganda exercise was launched describing the patenting of seeds as the great good fortune of farmers and the harbinger of prosperity for rural India. It was an aggressive and sustained campaign on the part of the NGO community that forced the government to change its stand and opt for a *sui generis* system instead. Gene Campaign has been in the forefront of this campaign from the start, even having initiated it. It was a decisive event in March 1993 which contributed a great deal to compelling the government to abandon its pro-patent stand.

This event was a farmers rally organised by Gene Campaign together with three farmer organisations, the All India Bhartiya Kissan Union, the Bhartiya Kissan Union of Punjab and the Karnataka Rajya Ryatha Sangha. This farmers rally, led by the imposing figure of Mahendra Singh Tikait was held behind the Red Fort on March 3. It issued a single call: No Patents on Seeds. The government realised the issue had reached the people and it would be suicidal to enforce the bitterly opposed patent option.

Once the *sui generis* path was decided, came the question of what kind of legislation we would give ourselves which would accord Plant Breeders Rights in India for the first time. Gene Campaign's position right from the start has been that if the status quo has to be changed and we have to grant Plant Breeders Rights, our legislation will have to grant a strong Farmers Rights at the same time. To recalcitrant and unwilling governments, we pointed out over and over again, that there was nothing in TRIPS or Article 27.3(b) that came in the way of granting Farmers Rights. And that even if there were to be any restriction on the granting of Farmers Rights, it would be impossible for India to accept such a restraint.

Gene Campaign's demand has been for a Farmers Right that would allow the farming community to retain the same control over seed production and use that they have always had. As against the widely articulated demand that Farmers Rights should constitute the right to save seed from the harvest to sow the next crop (plant back rights), Gene Campaign's position has been different. We have maintained that plant back rights were no rights, only exemptions. Such exemptions, sometimes referred to as Farmers' Privilege, were allowed by Breeders in the early years of UPOV and were limited to plant back rights in varying degrees. In some UPOV member countries, France for example, limited exemptions were granted to

farmers, in others like Greece, these were more generous. Exemptions for farmers were retained till the 1978 version of UPOV. They have been considerably diluted since. After the last amendment in 1991, exemptions for farmers are no longer a matter of course. They have been made optional and are subject to the consent of the Breeder.

Gene Campaign has insisted that Indian law has to grant well defined rights, not just provide beggarly exemptions, to its farmers. These rights have to be recognised because of the past and present contributions made by the farming community to the conservation of agrobiodiversity and their role as dynamic breeders of new varieties which anchor the food security of the world.

In addition to this, as part of Farmers Rights, we wanted payment for the use of farmer varieties and their informed consent. We also wanted compensation for the farmer if poor quality spurious seeds led to crop failure. To make certain the farmer does not get displaced by fancy new companies as a seed producer, the key element was to ensure that the farmer retained the right to sell seed to other farmers, even if the variety was under a Breeders Right. This right to sell seed was crucial to maintaining the livelihood basis of the farming community and the nation's self reliance in agriculture. This clause, the right to sell seed, was the most fiercely resisted and was till now the major bone of contention.

Sadly, the strongest opposition to Farmers Rights has come from within our own government. Senior scientists of the ICAR system and bureaucrats of the Agriculture Ministry have been the principal opponents of the farmers' right to sell seed, drafting time and countless time again, as governments changed, that the farmer had the right to save, sow, exchange - but not sell seed. It took the intervention of a Parliamentary committee and strong NGOs to get past their blockade and get a reasonable Farmers Rights in place.

FARMERS RIGHTS

The new law now recognizes the farmer not just as a cultivator but also as a conservator of the agricultural gene pool and a breeder who has bred several successful varieties. The Bill makes provisions for such farmers varieties to be registered, with the help of NGOs so that they are protected against being scavenged by formal sector breeders. The rights of rural communities are acknowledged as well. The final version of the much fought over clause on what constitutes a Farmers Right (Section 39, clause (iv)), now reads like this.....

The farmer "shall be deemed to be entitled to save use, sow, resow, exchange, share or sell his farm produce including seed of a variety protected under this Act in the same manner as he was entitled before the coming into force of this Act.;

Provided that the farmer shall not be entitled to sell branded seed of a variety protected under this Act.

Explanation :- for the purpose of clause (iii) branded seed means any seed put in a package or any other container and labeled in a manner indicating that such seed is of a variety protected under this Act."

This formulation allows the farmer to sell seed in the way he has always done, with the restriction that this seed can not be branded with the Breeder's registered name. In this way, both Farmers and Breeders rights are protected. The Breeder is rewarded for his innovation by having control of the commercial market place but without being able to threaten the

farmers' ability to independently engage in his livelihood, and supporting the livelihood of other farmers.

Importance of Farmer's Right to Sell Seed

The pivotal importances of the farmer having the right to sell (not save, not exchange, but sell) seed has to be seen in the context of seed production in India. In India, the farming community is the largest seed producer, providing about 85% of the country's annual requirement of over 60 lakh tons. If the farmer were to be denied the right to sell, it would result in a substantial loss of income for him. But far more importantly, such a step would displace the farming community as the country's major seed provider. Their only replacement if this happens, will be the large Life Science corporations since budget cuts have seriously weakened the capacity and output of the other player, the public research institutions.

It is important to understand the political economy of seed production and seed sale in India and in the world, to understand why it was absolutely crucial for the farmer to retain the right to sell. In India, the farming community is the largest producer of seed, supplying the bulk of India's seed requirement. The Agro-Chemical giants turned Life -Science Corporations have emerged as the largest seed producers in the industrialised nations. In Europe and the US, as also in Canada, Australia, New Zealand , Japan and to a lesser extent, Korea and some Latin American countries, seed production is now in the hands of the large corporations. Control over the seed sector was established by the simple expediency of buying up all the smaller seed companies. In India, such a strategy can not work because there are simply no seed companies of any significance or size that can be bought and that would transfer their market share to the MNC that bought it.

In India, a strategy to control seed production would have to rest on knocking the farmers out of the market by some other means. Since they are not organised in a company that can be purchased, this can only be done, by legally taking away their right to sell seed. If the farmer can be stopped by law from selling seed (and by implication, producing seed), the market automatically becomes available to the next alternative, the MNC. This is precisely why the Farmers Right clause in the Indian PVP legislation has been the subject of such a tussle between the seed industry and pro-farmer groups like Gene Campaign.

Weak Farmers Rights will allow seed corporations to dominate the seed market. Strong Farmers Rights keeps the farming community alive and well as viable competitors and an effective deterrent to a take over of the seed market by the corporate sector. Control over seed production is central to self-reliance in food. The need for this self-reliance can not be over-emphasised. Food security is in the forefront of national security. A nation that does not produce its own seed and its own food can not be a secure nation.

OTHER KINDS OF FARMERS' RIGHTS

Apart from the right to sell (unbranded) seed of protected varieties as before, the rights of farmers and local communities are protected in other ways too. There are provisions for acknowledging the role of rural communities as contributors of landraces and farmer varieties in the breeding of new plant varieties. Breeders wanting to use farmers varieties for creating Essentially Derived Varieties (EDVs) can not do so without the express permission of the farmers involved in the conservation of such varieties.

Essentially Derived Varieties (EDV) are those varieties that are more or less (essentially) the same as the parent variety except for limited, specific changes. Varieties are considered

essentially derived when they are developed in such a way that they retain virtually the whole genetic structure of the earlier variety. Most genetically modified (GM) varieties are EDVs. For example Bt cotton is a cotton variety, identical to its parent except for the single difference of containing a bacterial gene from the *Bacillus thuringensis*. So also Bt corn.

Any person, governmental or non- governmental agency is entitled to register a community's claim and have it duly recorded at a notified centre. This intervention enables the registration of farmer varieties as sources of germplasm, even if the people themselves can not do this themselves due to illiteracy or lack of awareness. If the claim on behalf of the community is found to be genuine, a procedure is initiated for benefit sharing so that a share of profits made from the new variety goes on behalf of communities, into a National Gene Fund.

Disclosure

Other details supportive of the rights of farmers are the explicit and detailed disclosure requirements in the passport data, which has to be submitted at the time of applying for a Breeders certificate. Passport data refers to the data about the parentage of the new variety. In this case it includes details like name and location of any farmers varieties used. If any concealment is detected in the passport data, the Breeders certificate stands to be cancelled.

GURT (terminator) forbidden

There is a clause prohibiting breeders from using sterile seed technologies. Breeders will have to submit an affidavit that their variety does not contain a Gene Use Restricting Technology (GURT) or terminator technology.

Exemption from fees

Further protecting farmers from the new set of provisions being put in place, the Act stipulates that if farmers wish to examine documents and papers or receive copies of rules and decisions made by the various authorities, they will be exempt from paying any fees. Such fees would be payable by all other people wanting to examine documents and receive copies of decisions from the National Authority, the Registrar, the Tribunal and various other committees.

Protection against innocent infringement

The law has also attempted to address a concern voiced by several quarters, that when the new system of Plant Breeders Rights is imposed for the first time, there may be cases of unknowing infringement of Breeders Rights. Section 43 specifies that the farmer can not be prosecuted for infringement of rights specified in the Act if he can prove in court that he was unaware of the existence of such a right.

So if the farmer uses the registered name of the breeder informally, while selling seed, he is protected if it can be shown that he did not know that there was a new law in place which places some restrictions on his traditional rights, including the right to sell seeds.

GOOD CLAUSES IN THE ACT THAT NEED IMPROVEMENT

Benefit Sharing

The use of farmer varieties to breed new varieties will have to be paid for. Revenue generated in this way is to flow into a National Gene Fund .Despite its good intentions of protecting the interests of the farming community, the new Act is likely to create problems in implementation because the description of the National Gene Fund is confused and poorly, drafted [section

46 (2) d]. The Gene Fund should be the recipient of all revenues payable to the farming communities under various heads. This money should be collectively, rather than individually, accessed by farming communities. Exceptions can be made where individuals are clearly identified as breeders of specific varieties. The use of the money should not be restricted to conservation or for maintaining ex situ collections. That would mean that the revenue generated from the use of farmer varieties would partly be used to maintain the National Gene Bank in Delhi. This would be blatantly unfair. The money earned by the farming community should be theirs to spend as they wish and not frittered away to meet the expenses incurred by committees or to maintain national facilities which are the nation's responsibility.

The method proposed for fixing and realising benefit sharing is at present, a messy, convoluted exercise as it stands. The share of benefits payable to farmers will be calculated on the basis of the commercial utility of the variety and *be recoverable as an arrears of land revenue by the District Magistrate within whose local limits of jurisdiction the breeder liable for such benefit sharing resides* ! What happens in the case, say of the company Monsanto, who will often be the registered breeder? Its headquarters, and therefore place of residence is St. Louis, Missouri, USA. Who in such cases will recover benefits for the farmers? This irrational condition needs serious revision. Possibly the least problematic approach to fixing benefit sharing would be a system of lump-sum payments, based for example on volume of seed sale.

Protection against bad seed

In providing a liability clause in the section on Farmers Rights, the farmer in principle is protected against the supply of spurious and/ or bad quality seed. However, the clause is weakly framed, leaving too much to the discretion of the Authority .Companies selling poor quality seeds with tall claims have been the cause of several crop failures leading to irrecoverable losses for the farmer, sometimes with the tragic consequence of farmers committing suicide. The Act states that if the seed supplied does not perform as has been promised by the breeder/ company, the farmers shall have the right to claim compensation. The compensation should be specified and should be large enough to be a deterrent. If it is proven that the breeder has made false claims and the farmer has suffered a crop failure, then compensation should be awarded amounting to at least twice the projected harvest value of the crop. In addition, a jail term should be provided if the breeder repeats the offence of selling bad quality seeds.

BREEDERS RIGHTS

Breeders Rights over the varieties they have developed are more than adequately protected by the new legislation. On registration, the Breeder has complete rights of commercialisation for the registered variety either in his/ her own person or through anyone he designates. These unequivocal rights include the right to produce, sell, market, distribute, import or export a variety, in short, full control over production and commercialisation.

The strong protection granted to a plant breeder over his/ her variety is seen in the section dealing with infringement of Breeders Rights where punishments in the form of substantial fines and jail terms have been prescribed for those who infringe the rights of the registered breeder.

Penalties for Infringing Breeders Rights

Violation of a Breeders Right can be construed at several levels. It applies to the variety itself as also to its packaging. Infringement will be established if the packaging is the same or even similar, such that the package could appear to be that of the Breeder. Legally, a similar

looking package will be considered "Passing off" and so actionable. Any one other than the Breeder naturally can not use the registered name or denomination. The use of the same or similar name in any way, by action or even suggestion, will constitute a violation and will be punishable.

The Breeders Rights have been strengthened to the extent that if there is mere suspicion of violation or infringement, the onus of proving innocence is placed on the alleged violator. In any prosecution for falsely using a denomination, the burden of proof is reversed and it is incumbent on the alleged violator to prove that the consent of the Breeder was obtained. This is excessive, almost draconian and needs to be toned down. The normal course in law is for the accuser to furnish proof for the accusation and so it must remain in this case too.

The grounds constituting violation are laid out in such elaborate detail, listing the smallest acts that can be construed as infringement in a way that the hold of the Breeder over his variety is very strong indeed. Unless the alleged violator proves that he acted in innocence, without the intention to defraud, jail terms and penalties are stiff. Penalties are prescribed for applying false denomination and for selling varieties to which false denomination is applied.

The Act is very clear on penalties to be imposed if a person falsely uses a denomination or misrepresents the address of the Breeder during trading. Penalties in this case can range from Rs. 50,000 to ten lakh as well as a jail term ranging from three months to two years, depending on the severity of the damage caused. If the violator is actually selling, offering for sale or merely in the possession of a registered variety belonging to someone else, the punishment is somewhat worse. The penalty remains the same, between Rs. 50,000 and ten lakh but the jail term applicable will not be less than six months, going up to two years. If the offence is repeated, the minimum jail term prescribed is one year, extending to three years and the fine starting at Rs. one lakh, can go up to Rs. 20 lakh. With deterrents like this in place, the legitimate rights of the Breeder are more than adequately protected.

The obligations of the breeder include mandatory disclosure of the source of parental varieties used in the breeding of the new variety. When farmer varieties or land races are used, this is to be accompanied by payment of a certain sum as 'royalty', under the clause of benefit sharing. The breeder also has to sign an affidavit that the variety does not contain any sequences that will restrict gene expression and induce sterility (the so called terminator technology).

RIGHTS OF RESEARCHERS

The Bill has provisions for Researchers Rights, which allows scientists and breeders to have free access to registered varieties for research. Specifically, the Bill spells out that any one doing research can use any variety registered by the Plant Breeder for conducting experiments. The registered variety can also be used for the purpose of creating other, new varieties. That means that the registered Breeder can not stop other breeders from using his/her variety to breed new crop varieties. This flexibility is however curtailed when the registered variety needs to be used repeatedly as a parental line for commercial production of another variety. Examples would be when the variety is required repeatedly for backcrossing or as a parent line for producing a hybrid. In that case, new breeders will need the authorisation of the breeder whose variety they want to use repeatedly.

PROTECTION OF PUBLIC INTEREST

Apart from the inclusion of Farmers Rights, the new Act includes public interest clauses, like exclusion of certain varieties from protection and the grant of Compulsory Licensing. To secure public interest, certain varieties may not be registered if it is felt that prevention of commercial exploitation of such variety is necessary to "protect order or public morality or human, animal and plant life and health or to avoid serious prejudice to the environment".

Compulsory License

The legislation provides for the granting of compulsory license to a party other than the holder of the Breeders certificate if it is shown that the reasonable requirements of the public for seeds have not been satisfied or that the seed of the variety is not available to the public at a reasonable price. The breeder is entitled to file an opposition but should the charge be valid, the breeder may be ordered by the Authority to grant a compulsory license under certain terms and conditions including the payment of a reasonable license fee. The Authority shall determine the duration of the compulsory license granted but in any case the license can not exceed the total remaining period of the protection of that variety. Compulsory License however will not be awarded if the Breeder can demonstrate reasonable grounds for his inability to produce the seed.

CORRECTIVES NEEDED IN THE BILL

There is much that can be improved in the new law. It has areas of concern which need to be revisited, like the special treatment given to Essentially Derived Varieties (EDV), which will often be GM varieties. The creation of a separate track for their clearance raises questions. Why should there be a separate track if there is no covert intention of pushing through varieties that may be the subject of opposition? In the interests of transparency, Essentially Derived Varieties should be dealt with in the same way as other conventionally bred varieties, providing the same opportunities for their examination and opposition, as has been provided for the registration of other varieties.

The Authority which will oversee implementation is far too bureaucratic, packed with ex officio holders of transient posts, who experience shows, bring little knowledge and even less interest. What is needed in place of this official pyramid, are an abundance of independent experts and stakeholders and NGOs.

The text of the Act needs a language overhaul. For one it is shoddily written. In some places the language is so poor and ambiguous that it could even lead to legal disputes. It is now important to frame appropriate rules that are clearly articulated and designed to enable the implementation of the specific goals of the Act. Attention will have to be paid to detail. This is a task requiring specific knowledge and would be most successfully undertaken in consultation with independent experts having some experience in the field.

AFTER A PLANT VARIETY LEGISLATION, WHAT NEXT ?

Now that we have enacted a Plant Variety Protection and Farmers Rights law, the next step is to decide through which international platform India will interact with other nations. At present the only international platform is the UPOV, a western platform regulating Plant Breeders Rights for the industrial nations. The Life Science Corporations control UPOV which on last count had 48 members. Although a few developing countries like Trinidad & Tobago have been bulldozed into becoming members, no Asian country is a member yet and neither should India become one.

The International Union for the Protection of New Varieties of Plants (UPOV) is an inter-governmental organization with headquarters in Geneva. The Convention was signed in 1961. It was revised in 1972, and 1978. The Convention was further revised in 1991 to strengthen the protection offered to the breeder and dilute the exemptions granted to the farmer for planting back seed. The conditions of UPOV 1991 do not allow the farmer to save seed unless individual governments with the consent of the breeder, allow limited exceptions. UPOV 1991 also introduces patents by allowing dual protection. This means UPOV members can patent plant varieties.

Why India should not join UPOV

Gene Campaign opposes India joining UPOV because UPOV does not address our needs and because its working is totally alien to the conditions of agriculture prevailing in the countries of the south. We believe that developing countries must create their own platform which will grant apart from Breeders Rights, also Farmers Rights and be geared to work towards food and nutritional security in our countries. There is no concept of Farmers Rights in the UPOV system, rights are granted only to the breeder which in today's context are the seed companies.

- The UPOV system is not suited for developing countries because it embodies the philosophy of the industrialized nations where it was developed and where the primary goal is to protect the interests of powerful seed companies who are the breeders. In the UPOV system, rights are granted only to the breeder, there are no rights for the farmer. In India the position is very different. We do not have big seed companies in essential seed sectors and our major seed producers are farmers and farmers cooperatives. Logically, our law will have to concentrate on protecting the interests of the farmer in his role as producer as well as consumer of seed.
- Once we are in the system, we shall be forced to go in the direction that UPOV goes. It is a system headed towards outright patents. It permits dual protection of varieties, in the UPOV system, the same variety can be protected by Plant Breeders Right (PBR) and patents. Starting with its first amendment in 1978 when limited restrictions were placed on protected seed, the 1991 amendment brought in very strong protection for the plant breeder. In this version, breeders are not exempt from royalty payments for breeding work and the exemption for farmers to save seed has become provisional.
- UPOV laws are formulated by countries which are industrial, not agricultural economies. In these countries the farming community is by and large rich and constitutes from 1 to 5% of the population. These countries do not have the large numbers of small and marginal farmers like we do.
- UPOV laws are framed in countries with a completely different agriculture profile to ours. These are countries where subsidy to agriculture is of a very high order unlike India. Because they produce a massive food surplus, farmers in industrialised countries get paid for leaving their fields fallow. The UPOV system does not have to protect the farming community of Europe in the way that our seed law will have to protect ours.
- In the industrialised nations agriculture is a purely commercial activity. For the majority of Indian farmers however, it is a livelihood. These farmers are the very people who have nurtured and conserved genetic resources. The same genetic resources that breeders

want to corner under Breeders Rights. We must protect the rights of our farmers and these rights must be stated unambiguously in our sui generis legislation.

- Almost all agricultural research and plant breeding in India is financed with the taxpayers money. It is conducted in public institutions like agricultural universities and institutions of the Indian Council of Agricultural Research (ICAR). This research belongs to the public. The laws of UPOV on the other hand are formulated by societies where seed research is conducted more in the private domain than in public institutions; where big money is put into breeding using recombinant DNA technology which is expensive. Because they invest in expensive breeding methods and need to secure returns on their investments, seed companies in Europe seek market control through strong IPRS. These conditions do not apply in India.
- The UPOV system is far too expensive. The costs of testing, approval and acquiring an UPOV authorised Breeders Right certificate could be in thousands, even lakhs. Such rates will effectively preclude the participation of all but the largest seed companies. There certainly will be no space in such a system for small companies, farmers co-operatives or farmer/breeders.

Farmers play a significant role as breeders of new varieties. They often release very successful varieties by crossing and selection from their fields. These varieties are released for use as such. In addition, in almost all cases, these varieties are taken up by agriculture universities as breeding material for producing other varieties. Such farmer/breeders would not be able to participate in an expensive system like UPOV.

Their material along with their labour and innovation would be misappropriated by those with the money to translate such valuable germplasm into money-spinning varieties registered in UPOV. Poor farmers unable to pay the costs of getting an UPOV certificate, would tend to sell their varieties for small sums to larger seed companies. This will be the ultimate irony, creating an institution that will snatch away from the farmer his material and his opportunities.

CoFaB, a developing country alternative to UPOV

Gene Campaign along with Centre for Environment and Agriculture Development, has drafted an alternative treaty to UPOV to provide a forum for developing countries to implement their Farmers and Breeders Rights. This treaty is called the **Convention of Farmers and Breeders, CoFaB** for short. CoFaB has an agenda that is appropriate for developing countries. It reflects their strengths and their vulnerabilities and it seeks to secure their interests in agriculture and fulfil the food and nutritional security goals of their people.

Unlike the provisions of the UPOV, the CoFaB treaty seeks to fulfil the following goals :

- * Provide reliable, good quality seeds to the small and large farmer
- * Maintain genetic diversity in the field
- * Provide for breeders of new varieties to have protection for their varieties in the market, without prejudice to public interest .
- * Acknowledge the enormous contribution of farmers to the identification, maintenance and refinement of germplasm
- * Acknowledge the role of farmers as creators of land races and traditional varieties which form the foundation of agriculture and modern plant breeding,
- * Emphasise that the countries of the tropics are germplasm owning countries and the primary source of agricultural varieties

* Develop a system wherein farmers and breeders have recognition and rights accruing from their respective contribution to the creation of new varieties

The salient features of COFAB are as follows

1. **Farmers rights:** Each contracting state will recognise the rights of farmers by arranging for the collection of a Farmers Rights fee from the breeders of new varieties. The Farmers Rights fee will be levied for the privilege of using land races or traditional varieties either directly or through the use of other varieties that have used land races and traditional varieties, in their breeding program.

Farmers Rights will be granted to farming communities and where applicable, to individual farmers. Revenue collected from Farmers Rights fees will flow into a National Gene Fund (NGF) the use of which will be decided by a multi-stakeholder body set up for the purpose. .

The Rights granted to the farming community under Farmers Rights entitles them to charge a fee from breeders every time a land race or traditional variety is used for the purpose of breeding or improving a new variety.

Rights granted to the farmer and farming community under Farmers Rights are granted for an unlimited period.

2. **Breeders rights:** Each member state will recognise the right of the breeder of a new variety by the grant of a special title called the Plant Breeders Right.

The Plant Breeders Right granted to the breeder of a new plant variety is that prior authorisation shall be required for the production, for purposes of commercial and branded marketing of the reproductive or vegetative propagating material, as such, of the new variety, and for the offering for sale or marketing of such material. Vegetative propagating material shall be deemed to include whole plants.

The breeder's right shall extend to ornamental plants or parts of these normally marketed for purposes other than propagation when they are used commercially as propagating material in the production of ornamental plants or cut flowers.

Authorisation by the breeder shall not be required either for the utilisation of the new variety as an initial source of variation for the purpose of creating other new varieties or for the marketing of such varieties. Such authorisation shall be required, however, when the repeated use of the new variety is necessary for the commercial production of another variety. At the time of application for a Plant Breeders Rights, the breeder of the new variety must declare the name and source of all varieties used in the breeding of the new variety. Where a land race or farmer variety has been used, this must be specially mentioned.

In order to promote a more sustainable kind of agriculture and without any prejudice to the quality and reliability of the new variety, CoFaB enjoins breeders of new varieties to try to base the new variety on a broader rather than a narrower genetic base, in order to maintain greater genetic variability in the field. Further, a variety for which rights are claimed must have been entered in field trials for at least two cropping seasons and evaluated by an independent institutional arrangement. The breeder at the time of getting rights will have to provide the genealogy of the variety along with DNA finger printing and other molecular, morphological

and physiological characteristics. The right conferred on the breeder of a new plant variety shall be granted for a limited period, depending on the variety.

In the event of a variety becoming susceptible to pest attack, the normal period of protection may be curtailed to prevent the spread of disease. In order to monitor this, periodic evaluations will be undertaken. The breeder or his successor shall forfeit his right when he is no longer in a position to provide the competent authority with reproductive or propagating material capable of producing the new variety with its morphological and physiological characteristics as defined when the right was granted. The breeder will also forfeit his right if the "Productivity Potential" as claimed in the application is no longer valid.

To give primacy to the goals of food security, it has been provided in CoFaB that the right of the breeder will be forfeited if he is not able to meet the demand of farmers, leading to scarcity of planting material, increased market price and monopolies. If the breeder fails to disclose information about the new variety or does not provide the competent authority with the reproductive or propagating material, his right will be declared null and void.

The UNDP Human Development Report (HDR) 1999 has commended Gene Campaign's Convention of Farmers and Breeders (CoFaB) as an alternative to UPOV. Describing CoFaB as a "strong and coordinated international proposal which offers developing countries an alternative to following European legislation by focusing legislation on needs to protect farmers' rights to save and reuse seed and to fulfil the food and nutritional security goals of their people." Gene Campaign's purpose in drafting an alternative to UPOV was to provide the basis for a discussion on what kind of non- UPOV platform developing countries should have. Once there is a comprehensive analysis and critique and consensus emerges among developing countries, it will not take long to come up with a minimum operational framework with which to start.