

**REPORT OF THE FIRST MEETING  
OF THE WORKING GROUP  
ON INTELLECTUAL PROPERTY RIGHTS  
MAY 5 - 7 1997  
SUVA, FIJI.**



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Financial support for this meeting was provided by the International Plant Genetic Resources Institute (IPGRI) and the Technical Centre for Agricultural and Rural Cooperation (CTA).

The meeting was organized by the Pacific Regional Agricultural Programme (PRAP) Project 7 and the South Pacific Commission (SPC) Plant Protection Service.



## Introduction

The urgent need to consider an intellectual property rights system in the region comes from several directions:

- Pressure from the World Trade Organization (WTO) whose members are required to have a system of plant variety protection either through the use of patents or an 'effective *sui generis* system' by 1999.
- The Convention on Biological Diversity (CBD) which gives countries national sovereignty over their resources, and requires that access to a country's genetic resources must be on mutually agreed terms and with prior informed consent (PIC).
- Increased bioprospecting in the region, often without prior informed consent and mutually agreed terms between the bioprospectors and the country with the resources, that is, covert collecting.
- Imminent loss of the market for high-value plants such as kava, of tremendous importance in the pharmaceutical industry. Presently material is exported overseas from several of the Pacific Island countries, (PICs) to meet this demand. This market is under threat, for example, an Australian grower has attempted to import kava planting material from one of the PICs to establish a very large kava plantation in Queensland, Australia. There is at this present time no national or regional law whereby kava can be protected.
- No established policy for germplasm exchange from the regional tissue culture genebanks.

## Establishment of an *ad hoc* Working Group.

These intellectual property rights (IPR) issues were initially raised at a meeting of the Directors of Agriculture of the eight PACP countries (Regional Advisory Board) in 1995. Two Working Papers (Taylor, 1996a, 1996b) were discussed at the Permanent Heads of Agriculture and Livestock, (PHALPS) and RAB meetings in 1996. The issue was then put before a meeting of the Ministers of Agriculture for 6PACP countries as a resolution within an Issues and Concerns paper. The resolution was '*Conserving genetic diversity is the key to crop performance and thus its neglect could imperil agriculture. Linked to this is the need to protect and utilise plant genetic resources so that there is an equitable sharing of benefits. The Honourable Ministers of Agriculture are urged to put in place both in their countries and through regional cooperation, policies to conserve, protect and best utilise their plant genetic resources*'. This resolution was endorsed by the Ministers, and together with several others was conveyed to the meeting of Forum officials in November 1996.

The 1996 PHALPS and RAB meetings requested the formation of an *ad hoc* Working Group led by SPC and PRAP to consider these issues and make recommendations for further action. The first meeting of this Working Group was held in Suva, Fiji, May 5-7, 1997, and was largely funded by IPGRI-APO and CTA.

## **RECOMMENDATIONS FROM THE WORKING GROUP.**

### **General recommendations.**

- 1. Draft report containing information and recommendations to be circulated to the relevant departments of all Pacific Island countries (Agriculture, Environment, Foreign Affairs, Trade and Commerce, Attorney General Offices) requesting comments.**
- 2. Seek broader endorsement of the Working Group from PHALPS, RAB, SPC, USP, SPREP.**
- 3. Constitution of the Working Group to be expanded to include wider participation, e.g. representatives from Polynesia, Micronesia; Forum Secretariat; Legal and Environmental Departments; SPREP.**
- 4. SPC and SPREP, as permanent bodies with greater member country participation, should take the lead on issues of IPR.**
- 5. Inform Governments of Rural Advancement Foundation International, (RAFI), initiatives on IPR issues at the International Court of Justice.**

### **Genebanks and *ex situ* collections.**

The regional laboratories in the South Pacific, (SPC., Suva, and PRAP/IRETA, USP., Western Samoa) are responsible for a wide range of crop germplasm originating from many different island countries in Polynesia, Melanesia and Micronesia. The establishment of these tissue culture collections occurred largely as the result of various aid projects which were concerned with improving the diversity of the root and tuber crops in the PICs through the distribution of recommended, pathogen-tested material. These collections were amassed in the mid-1980s and at the time, the issue of intellectual property rights was not a consideration. As a result no policy was formulated regarding germplasm exchange. The principle of 'common heritage' existed at that time, and plant and animal genetic resources moved freely across borders with the assumption that all would benefit equally. With the increasing success of biotechnology, developing countries have become concerned that genetic material originating from their countries, can be 'improved' through research in industrialised countries, protected as intellectual property, and then no longer be available to them. They are in a position where they hold a valuable resource, but due to no, or limited technical capabilities, are unable to use that resource.

In December 1993 the Convention on Biological Diversity, (CBD) came into force. The most significant achievement of the CBD is the establishment of the concept of national sovereignty over resources thus replacing the common heritage principle. The CBD also states that access to a country's genetic resources must be with prior informed consent (PIC), and mutually agreed terms. Countries also have a right to a fair and equitable share of the benefits arising from the use

of their resources. This obviously affects the way in which germplasm is distributed and has implications for the regional tissue culture genebanks. The need to define distribution policies was further highlighted by a request for taro germplasm and multiplication technology from a commercial tissue culture laboratory not based in the Pacific Island region. From past discussions on this issue, it has been suggested that the genebanks utilise contractual agreements for both the acquisition, (germplasm acquisition agreement, GAA), and the distribution of germplasm, (material transfer agreement, MTA). Such agreements are currently in use by the International Agricultural Research Centres as a mechanism for facilitating the movement of genetic resources, but at the same time ensuring the fair and equitable sharing of the benefits derived from their use. These contractual agreements can be adapted for use in germplasm exchange with all *ex situ* collections.

In addition, it is important that countries document their genetic resources. For example, if genebanks can list and describe their accessions, this would then make it more difficult for any other party to be granted a patent on any material in that listing; and the genebanks would have some formal status to challenge such patents if granted.

**The following recommendations were made on the issue of genebanks and *ex situ* collections**

- 1. Determine status and ownership of *ex situ* collections of Pacific plants, within and outside the region.**
- 2. Compile directory of *ex situ* collections (tissue culture, field collections, botanic gardens, herbaria), listing curators or contact persons, plant species and varieties, and descriptor information.**
- 3. Compile directory of resource persons, (national, regional, legal, technical).**
- 4. Compile bibliography of relevant information.**
- 5. Distribute model contractual agreements to establish country's conditions for exchange of germplasm held in genebanks and *ex situ* collections.**
- 6. Investigate criteria for classification of plant species and varieties according to their value and vulnerability.**

**Effective *sui generis* systems.**

The WTO requires all member countries to establish plant variety protection either through the use of patents or an 'effective *sui generis* system' by 1999. At this present time, there is one established and widely used system, known as the International Union for the Protection of New Plant Varieties, (UPOV). However, traditional varieties of plant such as taro, cannot be protected

under the UPOV system, because they do not meet the qualifying criteria required. Alternative systems have been developed, but their effectiveness has not been tested because they have been little used. Several groups are trying to devise systems that would meet the requirements of the WTO and would be more appropriate to developing countries.

**The following recommendations were made on 'effective *sui generis* systems:**

- 1. Collate information on effective *sui generis* systems.**
- 2. Investigate the development of a Pacific Plant Variety Rights scheme conforming with UPOV, seeking formal assistance from New Zealand or Australia.**
- 3. Encourage existing regional programmes to increase awareness of the importance of recording and describing traditional varieties, to strengthen claims of ownership.**
- 4. Encourage the botanical description of traditional varieties, and use of harmonised databases for this purpose.**

**Bioprospecting.**

Bioprospecting refers to the activity of collecting biological samples from plants to soil for scientific analysis. How do the collectors know which organisms to target? One strategy is using the knowledge of the local people, for example, to identify the plants that are used in traditional healing. The analysis of samples takes place mainly in developed countries by pharmaceutical companies hoping to identify a chemical or gene which may have a therapeutic use. These companies are able to own chemicals and genes derived from plants, and are free to exploit them for commercial gain. Plant chemicals are routinely used to produce new medicinal drugs, which is a global trade valued in billions of dollars.

Under international law, the plant resources of a country belong to that country. The knowledge regarding the medicinal uses of a plant is the 'property' of the family or community holding that knowledge. Rarely, however is the country or community compensated for the use of the plant, or the use of the traditional knowledge relating to that plant. Countries must therefore watch for covert collecting. The Convention on Biological Diversity (CBD), which came into force in December 1993, has been signed by most Pacific countries. Under this agreement, countries are committed to develop policies regulating the access of bioprospectors to their resources. One sensible option is to forbid any bioprospecting until a regional compensation scheme is established. This would ensure that there is a fair return to all communities and countries regarding the discovery or use of any given plant or organism in the Pacific. However, if countries do decide to enter into contracts with bioprospectors it is critical that these contracts are carefully reviewed by an independent expert. The proposed bioprospector should make funds available for this so that the contract is fully understood by all parties, especially the resource owners. There are a number of guidelines and models available in the Pacific for such contracts.

It is critical that no biological samples leave a country without a permit, and an agreement as to how those samples will be used, their ownership, and any benefits to be received by the source country. Countries should be especially aware that universities and botanic gardens often collect biological samples on behalf of pharmaceutical companies so that any large-scale collecting should be strictly monitored and controlled.

**The following recommendations were made on bioprospecting:**

- 1. Encourage countries to develop policies that prevent any biological samples leaving countries without proper contractual agreements.**
- 2. Stress the need for bioprospecting application forms to be considered by appropriate national authorities.**
- 3. Stress the importance of regional collaboration to prevent countries from being used against each other.**
- 4. Examine possibilities of developing infrastructure to study and process products within the region.**
- 5. Encourage discussion between countries with plant species and varieties in common to consider united policies at international fora.**

**Kava**

A recent meeting, (3-5 March) in Suva of the First Expert Group Consultation Meeting on Kava in the Pacific discussed the importance of kava to the Pacific. A report was presented which reviewed the kava market in Europe, and stressed that the two major German companies involved in importing kava believe there is great potential for kava as a pharmaceutical product. These companies have invested in the development of a kava based product and are seeking solutions for the problems of supplies. This problem of supplies, both quantity and quality, resulted in discussions on the possibility of plantations being established in countries where the growing conditions are similar to that found in the Pacific Island countries. There is evidence that farmers in Hawaii are being actively encouraged to plant kava, and that there are attempts to establish plantations in Queensland, Australia. This would obviously have serious implications for the kava industry in the Pacific Island Countries, (PICs) as there is presently no legislation or policy that offers protection for the kava industry. If plantations were established elsewhere, and these supplied the overseas market, the PICs would have no process with which to claim compensation. In response to this the Kava Meeting made certain recommendations: for all of the kava producing countries to establish and impose a national ban on the export of kava planting materials outside of the region; for the Forum Secretariat and the South Pacific Commission to start working on the issue of intellectual property rights in relation to kava; to consider the establishment of one or more kava extraction plants in the region, and to identify the appropriate approach for promoting the final products so that international recognition is obtained.



**The following recommendations were made on the issue of protecting kava:**

- 1. Endorse recommendations from the First Expert Group Consultation Meeting on Kava in the Pacific, March 1997, with emphasis on the formation of kava councils.**
- 2. Lobbying support, especially from non-governmental organizations in Europe, America and Australia for the transfer of processing and marketing technology to the region.**
- 3. Identify funding for genetic variability studies and kava improvement programme.**
- 4. Evaluate the available Plant Variety Protection systems for applicability to kava.**

Prior to the discussion of the main issues and the formulation of the above recommendations, several papers were presented at the meeting. The following are abstracts taken from those papers.

**1. Clark Peteru: Legal Aspects of IPR: Summary of presentation to the IPR Workshop.**

IPR, particularly patent law, is not an area of law that is actively practiced in the Pacific. The level of technology is doubtless a critical limiting factor. Finance is another. Even less known, let alone practiced, is the area of IPRs over plant and other living matter. The rules of the game are changing very rapidly, mainly in response to the needs of the multinational corporations. We are the first to be affected, yet amongst the last to know. The considerable biodiversity found on the tropical islands requires that the Pacific region very quickly acquaints itself with this field, and establishes a regulatory regime sufficient to protect its genetic resources. Conventional IPR laws stipulate legal requirements which Pacific Islands are incapable of meeting due to a number of factors. There is the sheer cost of acquiring that protection, but a more complex issues focus on differing cultural conceptions. For example, the concept of a company as a separate legal entity is clear but does a village have the legal capacity to enter into contractual arrangements, and to sue or be sued.

A suitable regulatory regime poses several interesting challenges to the lawyer. We need to have a basic understanding of botany and the latest biotechnological techniques. We are compelled to think beyond established IPR laws which are the product of Western lawyers and interests, to new protective frameworks unique to our way of life. Some concepts already existing in UN Conventions such as the Model Provisions on Folklore may be utilised; others like 'traditional resource rights' are entirely new. At the same time, multilateral agreements such as the CBD., the International Undertaking on Plant Genetic Resources and TRIPs., which remain inconsistent with each other, are expected to be reflected in any national law. This will affect Pacific Island countries regardless of whether or not they are signatory to these agreements.

These challenges spawn a series of urgent questions to which we should begin finding answers. What protection is available to Pacific Island countries in the meantime? Can an agreement be found between the bioprospectors, who under the CBD should have access to a country's genetic resources, and the source countries themselves, who should get the best possible returns for their genetic resources. Of the several access agreements available which is the best suited to the Pacific? What moves have been made to develop a dialogue between tropical countries across the globe all of which are candidates for bioprospecting and all of which species in common with each other? How would a fair and equitable return to countries and/or communities be determined? What of the ownership of *ex situ* collections established before the CBD came into force? How are Pacific Island countries contributing to the global debate? Finally, how may kava varieties be protected? How may industrial countries be prevented from asserting further ownership rights over kava, particularly new varieties? What are the legal options, and if these are ineffective, what are the trade options?

## **2. Steve Preston: Intellectual Property Rights and Seed Supplies in Pacific Island Countries (PICs)**

This paper reviewed current supplies of commercial seed to the Pacific from outside the region, and analysed likely future developments. Lack of IPR legislation does not appreciably constrain variety testing and availability in PICs whose seed sectors are at an early stage of development. In most countries, commercial seed supplies are in the hands of fledgling businesses. These often have few contacts in the seed world and purchase seed from a limited number of overseas sources. Several potentially important sources remain untapped. Many farmers are unfamiliar with seed propagated vegetables and there is very little awareness of different varieties. Demand is greatest for cheap seed in small packs. Seed use is often inefficient, because of inefficient nursery practices. Few commercial or semi-commercial vegetable producers are prepared to pay the high price of hybrid seed, or to apply other inputs that these often require. These, and related factors limit the range of varieties available off-the-shelf in PICs far more than matters of IPR. PICs have yet to explore even a fraction of the accessible varieties. It would therefore be premature to worry about access to the new products of biotechnology when many conventional varieties developed in tropical conditions have not been tested. Yet in theory, lack of IPR legislation can only delay access to new varieties.

Demand for improved varieties will grow with time. Changes in the global structure of the seed industry, the decline in public funding for plant breeding, and the concentration of plant breeding in multinational companies, with accompanying developments in biotechnology, have increased and will continue to increase the importance of IPR legislation. Provided the adoption of PVP does not divert the attention of the few plant breeders in the region from their main tasks and does not call for new, large and expensive facilities, it can do some good, and little harm. It would not be sensible for individual countries to build their own administrative and technical capabilities for PVP. The logical way forward is for a regional approach, ideally tapping into the PVP systems of New Zealand or Australia. The costs, benefits and practicalities of installing and maintaining an effective regional PVP scheme warrant further study. In the long term this would stimulate not

only access to overseas varieties, but also commercial developments in the region. In the short term there would probably be little local investment in plant breeding. Compatibility with legislation elsewhere, which at present effectively limits the choice to UPOV, should be a key consideration, especially if there are offers of support from New Zealand or Australia.

The subject of patented genes and plants will remain highly charged until issues of access and Farmer Saved Seed are resolved. Model systems for exploiting new genes in backcrossing programmes are being developed, for example, The International Service for the Acquisition of Agribiotech Applications, (ISAAA); PICs should keep abreast of developments. To facilitate this they should have an observer at the Asia and Pacific Seed Association round table discussion on patents at the Asian Seed '97 meeting (22 to 26 September).

### **3. Bill Whitmore: How could the Pacific Island Countries Region fit into the UPOV system?**

A system of plant variety protection (PVP) in a country provides an incentive both for domestic investment in plant breeding as well as for overseas breeders to release new varieties. The increased availability of improved varieties that results benefits farmers, fruit and vegetable growers, and home gardeners. The national economy generally benefits. UPOV (International Union for the Protection of New Plant Varieties) is the intergovernmental PVP organization. The UPOV Convention is the international model for PVP that has been tested in practice and refined over the years. It is an accepted *sui generis* system under the TRIPs agreement.

Under the UPOV system a variety must be commercially new. The variety is examined in a growing trial to determine whether it is distinct, uniform and stable (DUS). Protection is granted for a limited number of years following which the variety becomes freely available. Other breeders are free to use a protected variety to breed other varieties. The UPOV Convention does not conflict with issues such as the conservation of genetic resources or 'farmers rights'. These issues are not addressed in the Convention because they are matters outside the sphere of PVP.

The 1978 Convention was revised in 1991 in order to provide a more effective system for breeders. Certain claims that the 1991 Convention is less suitable than the 1978 Convention for developing countries arise largely as a result of misunderstanding; the 1991 Convention has been adopted by a number of developing countries. Under the 1991 Convention member states must move to provide protection for all plant species; a State **may** allow farmers to freely save seed and reuse seed of a protected variety; the right of the breeder is extended in certain situations to cover harvested material; the concept of essentially derived varieties is introduced; a longer term of protection is provided; and membership of UPOV is permitted for intergovernmental organisations as well as States.

If Pacific Island countries agreed to introduce PVP how would such a system best be organised? A regional, rather than national approach might be preferable. One possibility for a regional scheme might involve tapping into an existing scheme such as that of New Zealand. The UPOV

system provides a choice of testing procedures ranging from official testing at a central site, breeder testing on the breeder's property, to relying on test reports from another country. Advice on legal, administrative and technical aspects is available from the UPOV office and some member States.

#### **4. Mary Taylor: Report for Regional IPR Meeting, May 1997, Suva, Fiji.**

This paper reported on the International Course on Plant Variety Protection (PVP) attended by the PRAP 7 TA at CPRO-DLO, Wageningen, Holland. The course looked at the most widely-used and established system of PVP, that of, The International Union for the Protection of New Varieties of Plants (UPOV). The main purposes of the UPOV Convention which came into force in 1961 was: provision of a common basis for national and regional protection system; achievement of a high degree of legal uniformity and economic efficiency; reduction of distortion and impediments to international trade; contribution to the development of agriculture, and the safeguarding of the rights of the breeder. Since 1961, further changes were made with the 1978 Convention, and then again in 1991. The 1991 Act requires two more states for ratification in order for it to come into force. There is some controversy over the differences between UPOV 1978 and UPOV 1991; these differences have been highlighted in the report by Mr Whitmore. Various aspects of UPOV were examined, such as the administrative structure and requirements, DUS testing and reference collections, use of advanced technology within UPOV and reporting. UPOV 1978 and 1991 were then compared and an attempt made to evaluate what implications the changes had for the Pacific Island countries. Of all the issues where there are changes the most contentious is that of 'farmers privilege'. With UPOV 1978 farmers could save seed for resowing on their land as long as it was not for commercial marketing. Seed companies complained that this privilege was being abused and so UPOV 1991 extends the minimum right of the breeder in relation to propagating material to all 'production or reproduction (multiplication)', without the addition of the words 'for the purposes of commercial marketing'. However, it is maintained that there is still flexibility in that 'farmers' privilege' is allowed within reasonable limits. The member States of the Cartagena agreement (Bolivia, Colombia, Peru and Venezuela), in a regional, harmonised agreement, have allowed for an extensive farmers' privilege. With the concept of essentially derived varieties, it was argued that this was of advantage to growers in developing countries as it prevented the modification of a variety by a single gene, and then the use of that variety to the detriment of the original variety.

Other PVP systems that were discussed were the Plant Breeders Rights System in Australia, and the United States System of Variety Registration. The former conforms to a large degree with UPOV 1978 and 1991, but uses a breeder testing system to assess DUS. The United States System utilises both PVP and Utility patents. It is suggested that the US system offers several advantages to owners of plant varieties. It provides flexibility in that breeders can choose PVP or patents, or both.

The main problem with the UPOV system is that it is not suitable for the protection of traditional varieties, basically because the criterion of novelty cannot be satisfied. The question then arises as to whether the region requires a UPOV-type system for the purpose of protecting 'new' varieties.

thereby creating incentives for regional and national breeding systems, and encouraging the flow of new, 'improved' germplasm into the region. Alternatively is it possible to develop an alternative 'effective *sui generis* system' that would be sufficiently flexible to provide a wide scope of protection, so that traditional and 'new' germplasm could be protected using the same system.

Other issues relating to the protection of plant germplasm were discussed at the meeting in Wageningen. The importance of documentation was stressed by many people. Accurate documentation, that is, describing the country's/region's genetic resources, can serve as a form of protection. Once you know what you have you are in a far better position to be able to lay claim to it. Perhaps with plants as important as kava is to the region, describing should include the whole genome.

It was argued that more discussion was required at the international level, and that developing countries could exert more pressure for the establishment of a system more suited to their needs than what existed at present. It was suggested that ASSINSEL, (World Congress of Breeders), would be prepared to have more talks on the issue of Farmers' Rights, and all that it entails, because they would be concerned that without such discussion, a system could be established that would affect their access to germplasm.

It would seem that whether it is bioprospecting, that is collecting from the 'wild' or exchange of material from genebanks, Prior Informed Consent, is of key importance, together with mutually agreed terms, as defined by the CBD. These principles could be adhered to through the use of contractual agreements such as Material Transfer Agreements (MTAs). It is generally accepted that MTAs are a sound method of regulating access to plant genetic resources, and can work well in the absence of a well-developed system of intellectual property protection. They are used by many institutions, including the International Agricultural Research Centres (IARCs).

The region is presently in a very vulnerable state as far as protection of its plant genetic resources is concerned. Exploitation of those resources could take place, and there would be no mechanism available for claiming recompense. The recent incident with kava illustrates why there is need for concern and action. If too much time is wasted, then valuable resources will be lost, and in many cases enormous potential.

#### **5. Bill Aalbersberg: Biodiversity, Bioprospecting and Intellectual Property Rights.**

Pacific people have long relied on a wide variety of plants in all aspects of their lives. Besides these traditional subsistence uses there is great potential for Pacific plants to be used for economic gains as commercial medicines, pesticides and cosmetic products. There are many unique plants and marine organisms in the Pacific that have long drawn the interest of overseas bioprospectors. It is critical that Pacific countries develop policies toward bioprospecting that maximise the benefits they will receive. Such policies will need to include provisions to protect the intellectual property rights of their people.

Prior to the development of the Convention on Biological Diversity (CBD) in 1993, biological materials were widely considered to belong to whoever could develop them into useful products. The CBD establishes that countries have a sovereign right to their biological resources. They are required to develop policies to allow outside access to these resources but on agreed terms that provide fair and equitable sharing of benefits, and encourage the conservation of biodiversity.

In Western countries intellectual property rights (IPR) such as patents, trade secrets, plant breeders rights, trademarks and copyrights are used to reward those who develop new and useful products. In developing countries traditional knowledge such as the efficacy of medicinal plants is used in bioprospecting but such knowledge does not qualify under current IPR laws.

This is widely viewed as unfair, and lawyers have been considering methods that could protect and reward such traditional knowledge. These are called 'traditional resource rights', and methods suggested are discovery rights, defensive publication and community knowledge registers. The usefulness of such methods is still unproven and in the interim it is suggested that any bioprospecting be covered by a detailed agreement outlining the moral and legal responsibilities of the bioprospector and resource owner. Such agreements should include:

- up-front payments to cover any costs of the resource owner to participate in the project
- an independent monitor funded by bioprospecting to evaluate proposed agreement and ensure parties understand it and comply to it.
- prior informed consent of resource owners and full disclosure of results to them and joint planning with them - all done in the local language.
- concern for biological and social environment
- equitable benefits and profit sharing
- benefits can cover a wide range (Annex 3)

In summary, the Pacific policy on bioprospecting should include:

- agreements before any biological materials leave the country - simple ones for pure academic research and detailed ones for commercial collections.
- material should be licensed for study for a limited period of time - not 'sold' and then returned to the source country.
- any patents should name the source country and community as co-inventors.
- technology transfer to allow greater intellectual input by the source country into products from local organisms.
- preference for the source country to resupply material
- provisions discussed above under 'traditional resource rights' agreements.

Pacific countries have much to gain, (or lose), from commercial developments based on their biological resources. This depends on the development of a coherent regional policy based on the above principles.

### **6. K.W. Riley: Access and Benefit Sharing in the Pacific Region: IPGRI's role**

Continued exchange is essential for the conservation of Plant Genetic Resources (PGR) both to ensure continued evolution and adaptation of plants to changing environments as well as for the development of improved varieties, necessary for food, fiber, shelter and economic development. Widespread application of Intellectual Property Rights (IPR), for the purpose of creating incentives for technological innovations, processes and products, required as part of trade agreements, has created challenges for the continued exchange of PGR. As plant breeding becomes privatised, Plant Breeders' Rights and Plant Patent legislation have been enacted or considered by many countries to provide recognition and compensation for the contribution made by plant breeders in developing new varieties. Suitable protection of Trade Related Intellectual Property (TRIPS), including *sui generis* systems which include plant varieties, is required of countries joining the World Trade Organization. While legislation for such forms of IPR have been well specified in Acts such as UPOV or plant patents, recognition for the contribution made by farmers and local communities in maintaining and improving genetic resources has not been as clearly defined. The resulting uncertainty in defining appropriate legislation, benefits and recognition, has resulted in significant reduction in international exchange of germplasm in recent years.

Several recent international conventions and agreements have dealt in some way with access and benefit sharing from the use of plant genetic resources. The Convention on Biological Diversity, ratified by more than 160 countries, requires countries to conserve and sustainably use genetic resources, and to share the benefits arising from their use. However, implementation mechanisms to achieve these objectives are still being developed. Similarly, the Global Plan of Action approved in June 1996 calls for stronger collaboration among countries for improving the conservation and use of PGR for Food and Agriculture, while the International Undertaking on Plant Genetic Resources is to establish terms to recognize Farmers' Rights and access and benefit sharing under FAO's Commission on Genetic Resources. Traditional resource rights are being considered under a number of agreements such as WIPO/UNESCO's Draft Declaration on Indigenous Rights.

Countries have clear responsibilities to adopt consistent and well-informed positions in order to help quickly resolve these issues at the global, regional, national and local levels. The International Plant Genetic Resources Institute (IPGRI), a member of the Consultative Group for International Agricultural Research (CGIAR), has a mandate to advance the conservation and use of plant genetic resources for present and future generations. IPGRI has recently become involved in a number of technical studies on PGR policy including access and benefit sharing. The Asia, Pacific and Oceania (APO) Group of IPGRI with offices in Malaysia, Beijing, and New Delhi assists in providing information on PGR-related issues at the regional and national levels.

Several studies (listed below) have been undertaken or are being developed which identify options for access and benefit sharing, including a suggestion for a multilateral system. Such a system could include specific crops and member countries who share PGR under commonly agreed rules. A draft paper is exploring options that countries might consider as *sui generis* legislation. Such *sui generis* legislation might include protection of landraces and traditional varieties. *Sui generis*

systems might also be used as a trigger to share benefits equitably. IPGRI has also been involved in the development of a series of agreements, signed in 1995, which place the germplasm collections held by the International Agricultural Research Centres in trust for the international community under the auspices of the Food and Agricultural Organization (FAO) of the United Nations. IPR are not to be taken out by the Centres on these germplasm accessions; those that receive the germplasm are bound by the same conditions.

The Pacific Island countries share a number of important features that affect the conservation, use and exchange of genetic resources. These include: high genetic diversity for a number of species such as breadfruit, coconut, kava, sweet potato and taro; a high proportion of crop species in the Pacific are vegetatively propagated which makes *ex situ* conservation expensive and difficult; traditional complex farming and forestry systems in which large number of species are found; small isolated islands which differ in genetic diversity, and finally a small cadre of staff available to undertake crop improvement, conservation or plant protection activities. Under such conditions, network-based systems of germplasm exchange, improvement, benefit sharing and the development of regional genebanks can have the greatest advantage.

IPGRI has been closely involved in the development of a series of agreements concerning terms under which coconut germplasm will be placed and maintained in regional genebanks and made available to members of the Coconut Genetic Resources Network (COGENT). A tripartite agreement between the host country in which the genebank is located is being negotiated between IPGRI (on behalf of COGENT) and FAO. Under this agreement, no IPR is to be taken out on the germplasm of designated accessions. A series of associated agreements includes a Germplasm Acquisition Agreement, A Standard Order form, Shipment Notice, as well as an Important Notice that refers to the Material Transfer Agreement between the Genebank host and the organization or country receiving the germplasm. Similar arrangements within a network-based multilateral system for exchange, conservation and benefit-sharing could possibly be suitable for the Pacific Island countries.

#### For further reading:

- Barton, J.H. and W.E. Siebeck. 1994. Material transfer agreements in genetic resources exchange - the case of the International Agricultural Research Centres. Issues in Genetic Resources No 1, May 1994. IPGRI, Rome, Italy.
- Cooper, D., J. Engels and E. Frison. 1994. A multilateral system for plant genetic resources: imperatives, achievements and challenges. Issues in Genetic Resources No. 2, May 1994. IPGRI, Rome, Italy.
- Hawtin, G. 1995. Approaches to facilitate access to plant genetic resources and promoting the equitable sharing of benefits arising from their commercial exploitation, within the context of CGIAR. Presented to the Commission on Plant Genetic Resources, FAO, Rome, June 1995.
- IPGRI. 1996. Access to plant genetic resources and the equitable sharing of benefits: a contribution to the debate on systems for exchange of germplasm. Issues in Genetic Resources No 4, June 1996. IPGRI, Rome, Italy.
- IPGRI. 1997. Options for Access to Plant Genetic Resources and the equitable sharing of benefits arising from their use (Draft). IPGRI, Rome, Italy.



## **7. Kosi Latu: Issues relating to Intellectual Property Rights.**

### **The Agreement on Related Aspects of Intellectual Property Rights**

The value of goods and services entering into international trade increasingly resides in the intellectual property component of them. To a large extent the industrial property rights (IPRs) - patents, trademarks, copyrights, plant breeders rights etc have mainly in industrialised countries replaced the fixed assets as the real economic value of companies. IPRs have become a trade issue because trade in goods containing an IP element has increased substantially in recent years, and a number of industrialised countries have felt that inadequate protection of IP in technology importing countries has eroded their competitive advantage. Developing countries, on the other hand, have been keenly aware of the increased costs which could arise from greater IP protection, for example, the costs of computer software, and basic necessities such as food and medicine.

The concerns of the developed countries, coupled with a few economic realities that had taken place in world trade since the 1970s, and the increase and rise of technology amongst other things, led to a move to negotiate for a stronger intellectual property in GATT. The result was the Agreement on related aspects of intellectual property rights (TRIPs) which was one of the agreements negotiated and concluded under the Uruguay Round. The TRIPs Agreement is *ipso facto* binding on all members of the WTO, i.e. a country cannot be a member of the WTO without being a party to the TRIPs Agreement. The TRIPs Agreement came into effect after one year following the entry into force of the WTO agreement, i.e. January 1996.

### **General provisions and basic principles**

The TRIPs agreement is the most comprehensive agreement on intellectual property rights. It addresses the applicability of basic GATT principles and those of relevant international intellectual property rights agreements; the provision of adequate intellectual property agreements; the provision of effective enforcement measures for those rights, multi-lateral dispute settlement, and transitional implementation arrangements.

WTO member countries are required to comply with three general obligations:

- **minimum standards:** TRIPs obliges all WTO member countries to provide minimum standards of protection; it is open to any country to provide greater or higher level of protection (Article 2)
- **national treatment:** Each member is obliged to accord to nationals of other member countries treatment no less favourable than it accords to its own nationals with regard to the protection of intellectual property (Article 3)
- **most-favoured-nation treatment (MFN):** Any advantage, favour, privilege or immunity granted to nationals of any other member country shall be accorded immediately and unconditionally to the nationals of other member countries (Article 4).

### Part 11 Categories of Intellectual Property Rights

Part 11 of the TRIPs agreement sets out different kinds of intellectual property rights that it seeks to address. These include:

- copyrights and related rights (performers, producers and broadcasters)
- trademarks including service marks
- geographical indications
- industrial designs
- patents
- lay-out designs and integrated circuit undisclosed information including trade secrets
- anti-competitive practices in contractual licenses.

### Part 11.1 Enforcement of Intellectual Property Rights.

The TRIPs agreement requires its members to prevent infringement of intellectual property rights by providing procedures under domestic law to ensure effective enforcement. It also sets out procedures and expeditious remedies which are to be made available. The civil procedures and remedies include provisions on evidence, injunctions, damages, and the right of judicial authorities to order the disposal or destruction of infringing goods. Members must also provide for criminal procedures and penalties, at least in cases of wilful counterfeiting or copyright piracy on a commercial scale. Criminal penalties must include imprisonment and/or fines sufficient to act as a deterrent.

Prompt and effective provisional measures must also be available in particular where any delay is likely to cause irreparable damage to the right holder, or where evidence is likely to be destroyed. It authorises border measures by customs authorities to prevent importation and release into domestic circulation of infringing goods.

### Part 1V Transitional and Implementation Provisions

The TRIPs agreement provides for one year period for developed countries to bring their legislation and practices into conformity. Developing countries and in general transition economies must do so in five years and least developed countries in 11 years. However, all Members have to comply with the national treatment and MFN obligations of the Agreement as of January 1 1996. Members taking advantage of the transitional periods shall ensure under the non-backsliding clause that any changes in its laws, regulations, and practice made during this period do not result in a lesser degree of consistency with the provisions of the TRIPs agreement.

Developing countries which do not at present provide product patent protection in an area of technology, have upto 10 years to introduce such protection. However, in the case of pharmaceutical and agricultural chemicals, they must accept the filing of patent applications from the beginning of the transitional period, though the patent need not be granted until the end of this period. If authorisation for the marketing of the relevant pharmaceutical or agricultural chemical is obtained during the transition period, the developing country concerned must, subject to certain conditions, provide an exclusive marketing right for the product for five years, or until a product patent is granted, whichever is shorter. Subject to certain exceptions, the general rule is that obligations in the agreement apply to existing intellectual property rights as well as new ones.

### Part V The Patent regime under the TRIPs agreement.

Article 27(1) of the TRIPs agreement provides that patents shall be available for any inventions, whether products or processes, in all fields of technology, provided they are new, involve an inventive step and are capable of industrial application. The term of protection for patents is twenty years from the date of filing.

**Exclusions:** Pursuant to Article 27(2), inventions may be excluded from patentability if their commercial exploitation is prohibited for reasons of public order or morality, provided that such exclusion is not made merely because the exploitation is prohibited by law; otherwise the permitted exclusions from patentability are for:

- **diagnostic and therapeutic methods for the treatment of humans and animals;**
- **plants and animals (other than micro-organisms); and**
- **essential biological processes for the production of plants and animals**

**Plant varieties** - Article 27(3)(b) - This provides that Members shall provide for the protection of plant varieties either by patents or by an 'effective *sui generis* system', such as the breeders' rights provided under the Conventions of the International Union for the Protection of New Varieties of Plants (UPOV), or by a combination thereof. The provisions of this paragraph shall be reviewed four years after the date of entry into force of the WTO agreement, i.e. January 1999. A country may choose both patent and plant breeders' rights systems, as appropriate. TRIPs provides this choice of the 1991 UPOV Convention in Article 27(3)(b).

**Pharmaceutical products:** The patentability of pharmaceutical products is a most conflicting area. Under the TRIPs regime, pharmaceutical products would be the subject of product patent. The pharmaceutical and chemical products are currently excluded from the patentability in many countries. Many countries still exclude pharmaceutical products and chemical products from patentability. Some countries only provide process patents instead of product patents. In some countries, neither are patentable. The exclusion is motivated by the concern for public health and availability of these products to the general public at a reasonable price. A process patent is perceived to encourage development of a national pharmaceutical industry in the developing countries effort to attain self-sufficiency, and is seen as part of their national planning. The introduction of product patents may cause losses of jobs, leading to increased unemployment and social unrest in these countries.

### Part VI Developing Countries and the TRIPs agreement.

Patents are predominantly held by Multinational corporations (MNCs) based in developed countries often motivated by their own commercial interests rather than the needs of a nation. Often developing countries see little advantage in maintaining and administering an expensive intellectual property regime out of their meagre resources whose tangible benefits they hardly find in their favour. There are resource implications in terms of the financial, legal and administrative costs of setting up such an effective intellectual property rights system in conformity with TRIPs. The operation of the new intellectual property regime has yet to be seen, but there are still other pertinent issues which must be raised about the efficacy of the new regime for developing

countries. Patenting of pharmaceuticals, drugs and biotechnology are issues which are still open to considerable debate in most of the developing countries.

### **8. Rosa Kambuou: Plant Genetic Resources of Papua New Guinea: Some thoughts on Intellectual Property Rights**

It is estimated that PNG contains more than 5% of the world's biodiversity in less than 1% of the land area. Advances in technology have enabled quick and inexpensive screening of wild products for potential agricultural, pharmaceutical and industrial development. Indigenous knowledge of bush medicine can lead researchers to find out potentially useful and naturally occurring medicinal compounds and PNG's isolated communities could provide valuable genetic information to the field of medicine. Therefore, it is no surprise that scientific and industrial demand for access to PNG's genetic resources is on the rise. Despite this increased interest, there are no clear national policies and legislation to govern and regulate the use of genetic resources in PNG.

Although no national policy on the IPRs of its PGR exists, PNG has a general government policy on sustainable agricultural development and preservation of natural resources and the environment, including the protection of the native flora and fauna from exportation. In addition to this, appropriate authorising documents such as Wildlife Export Permits, and Phytosanitary Certificates are required before any flora or fauna can be exported from PNG. PNG laws do not allow any plant material collected from the bush to go out of the country; the plant material has to be seed raised or grown in cultivation to the second generation before exportation is permitted. Other regulations, laws, acts exist for protecting the flora and fauna of the country from exportation. These are: Flora and Fauna Protection and Prohibition Act; International Trade on Wild Flora and Fauna Act; National Parks Act; Forestry Act; Quarantine Act; Custom's Prohibition Export and Import Regulations. Although these represent a legal framework, the enforcement of these Acts and regulations may not be satisfactory or effectively monitored. This has resulted in genetic resources going out of the country without the proper records.

The germplasm of the 'noble cane' (*Saccharum officinarum*) of New Guinea is a good example of valuable germplasm being taken from its centre of origin to develop an industry elsewhere. Other crops resources that have been collected and exported are bananas, various root and tuber crops, aibika and coconut. Apart from their conservation in regional and international genebanks, their level of utilisation remains unknown. The illegal exporting of orchids is a major problem, and will escalate in the future if the laws are not improved and enforced. To avoid the illegal exporting of these genetic resources, perhaps the immediate solution would be to strengthen and reinforce the various regulations and Acts that are in place. For long term planning, the response should be to formulate national policies on IPRs and other rights as stated in the International Undertaking on PGR and the CBD.

None of the existing International Undertakings or Agreements give **effective** rights to the local communities who are the rightful custodians of the rich diversity of genetic resources in developing countries. In the CBD, the rights of biodiversity are the sovereign rights of the nation states (Article 3). These rights need to be built on the rights of the communities who have

conserved and protected biodiversity within their national territories for many decades. The people of the South Pacific live in a communal way, very close to nature and the environment that surrounds them. It is of the utmost importance that the governments of these island countries stand behind their people in protecting their biodiversity.

IPRs are supposed to provide recognition and reward for intellectual creativity or are intended to secure ownership over products of the human mind. However, knowledge and creativity have been so narrowly defined in the context of IPRs that the creativity of nature and traditional systems have been ignored. The IPR systems that are being pushed by WTO deny the innovation by millions of farmers and communities in developing countries, where biological diversity is concentrated, and where knowledge of their use has evolved. Through TRIPs, all member states (of WTO) have to provide for plant protection either through the use of patents or through an 'effective *sui generis* system'. Governments of developing countries are being pressurised to respond to this, taking on board, systems that are not applicable or practicable in their countries. In developing new *sui generis* systems for these countries, governments should focus on the rights of farmers and the local communities who have been the original innovators in the utilization of plant genetic diversity.

The concept of 'Farmers' Rights' that was discussed in the context of the FAO International Undertaking on PGR in 1983 provided a measure of counterbalance to formal IPRs and patents. Farmers' Rights are intellectual rights, based on the recognition of the intellectual creativity and innovative capacity of farmers. The rights arise from the past, present and future contributions of farmers in conserving, improving and making available PGR, particularly in centres of origin and diversity. Farmers' Rights are not assigned to specific varieties, types of plants, or to specific farmers. Their purpose is to encourage farmers and farming communities to nurture, conserve, utilize and improve PGR. (FAO, 1993).

It is hoped that this meeting will provide a forum for the island countries in the South Pacific Region to discuss how other countries and their regions responded to the many issues of the Biodiversity Convention such as national sovereignty, conservation, sustainable use of PGR., fair and equitable sharing of the benefits arising from the use of these resources. The meeting should identify how best the South Pacific small island countries can work together to protect the rich diversity in plant, animal and marine resources present in their countries. It is also hoped that whatever resolutions are reached at the end of this meeting, they will continue to stimulate discussions at higher government levels so that relevant and appropriate legislations on IPRs be developed for the region to protect the interest, knowledge and techniques of the farmers and local communities who have made it possible to have this wealth of genetic diversity.

## References.

FAO. 1993. International Undertaking on Plant Genetic Resources. Commission on Plant Genetic Resources. Fifth Session. Rome.

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