



EXECUTIVE SUMMARY

Integrating Intellectual Property Rights and Development Policy

Commission on Intellectual Property Rights



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EXECUTIVE SUMMARY

Integrating Intellectual Property Rights and Development Policy

Report of the Commission on Intellectual Property Rights

London September 2002

**Commission on
Intellectual Property Rights**

PREFACE

Clare Short, the Secretary of State for International Development, established the Commission on Intellectual Property Rights in May 2001. We are made up of members from a diversity of countries, backgrounds and perspectives. We have each brought very different viewpoints to the table. We incorporate voices from both developed and developing countries: from science, law, ethics and economics and from industry, government and academia.

I believe that it is a considerable achievement that there is so much that we have been able to agree on about our approach and our basic message. As our title implies, we consider that development objectives need to be integrated into the making of policy on intellectual property rights, both nationally and internationally, and our report sets out ways in which this could be put into practice.

Although appointed by the British Government, we have been given absolute freedom to set our own agenda, devise our own programme of work, and come to our own conclusions and recommendations. We have been given the opportunity and financial support to improve our understanding of the issues through commissioning studies, organising workshops and conferences, and visiting officials and affected groups throughout the world. We have been supported by a wonderfully capable Secretariat supplied by the DFID and the UK Patent Office, and we want to thank them especially.

We first met on 8-9 May 2001, and have held seven meetings since. All or some of us have visited Brazil, China, India, Kenya, and South Africa, and we have consulted with public sector officials, the private sector and NGOs in London, Brussels, Geneva, and Washington. We visited the Pfizer research facility in Sandwich. A list of the main institutions we have consulted appears at the end of the report. We have commissioned seventeen working papers and held eight workshops in London on various aspects of intellectual property. And we held a large conference in London on 21-22 February 2002 to ensure that we could hear questions and concerns from many perspectives. We regard these sessions as important parts of our work in their own right. They brought together a range of individuals with a view to facilitating dialogue and exploring the scope for moving some of the issues forward.

Our tasks were to consider:

- how national IPR regimes could best be designed to benefit developing countries within the context of international agreements, including TRIPS;

- how the international framework of rules and agreements might be improved and developed – for instance in the area of traditional knowledge – and the relationship between IPR rules and regimes covering access to genetic resources;
- the broader policy framework needed to complement intellectual property regimes including for instance controlling anti-competitive practices through competition policy and law.

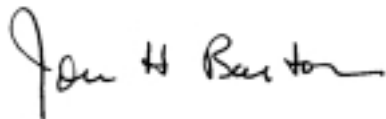
We decided early on not just to attempt to suggest compromises among different interest groups, but to be as evidence-based as possible. This has been challenging, for there is often limited or inconclusive evidence, but our Secretariat, extensive consultations, and the papers we commissioned, helped us in identifying the available evidence, which we then carefully evaluated.

We also recognised early on the importance of distinguishing nations (middle or low income) which have substantial scientific and technological capability from those which do not. We attempted to learn about the real impacts of intellectual property, both positive and negative, in each of these groups of nations. We chose to concentrate on the concerns of the poorest, both in low and middle income nations.

We all concur in this report. Our aim is practical and balanced solutions. In some cases we have adopted suggestions made by others but the responsibility for the conclusions is ours alone. We hope that we have fulfilled our task and that the report will be a valuable resource to all those engaged in the debate on how intellectual property rights might better serve to promote development and reduce poverty.

On behalf of the Commission, I want to thank all those people across the world, far too numerous to mention, who provided input to our discussions, and especially those who prepared our working papers.

Finally I want to thank Clare Short, and the UK Department for International Development, for their foresight in creating the Commission on Intellectual Property Rights. I have been honoured to chair it. It has been an extraordinary experience for me, and for all of us on the Commission. We received a challenging remit. We greatly enjoyed our task and the opportunity to learn from one another and, in particular, from the many who have contributed to our work.



JOHN BARTON
Chairman

FOREWORD

There are few concerned with IP who will find that this report makes entirely comfortable reading. No greater compliment can be paid to Professor Barton and his team of Commissioners. Nor can there be any greater indication of the foresight and courage of Clare Short, the UK Secretary of State for International Development, in creating the Commission and setting its terms of reference in the first place.

Perhaps there is something about the era we live in that has encouraged blind adherence to dogma. This has affected many walks of life. It certainly has affected the whole area of intellectual property rights. On the one side, the developed world side, there exists a powerful lobby of those who believe that all IPRs are good for business, benefit the public at large and act as catalysts for technical progress. They believe and argue that, if IPRs are good, more IPRs must be better. On the other side, the developing world side, there exists a vociferous lobby of those who believe that IPRs are likely to cripple the development of local industry and technology, will harm the local population and benefit none but the developed world. They believe and argue that, if IPRs are bad, the fewer the better. The process of implementing TRIPS has not resulted in a shrinking of the gap that divides these two sides, rather it has helped to reinforce the views already held. Those in favour of more IPRs and the creation of a "level playing field" hail TRIPS as a useful tool with which to achieve their objectives. On the other hand those who believe that IPRs are bad for developing countries believe that the economic playing field was uneven before TRIPS and that its introduction has reinforced the inequality. So firmly and sincerely held are these views that at times it has appeared that neither side has been prepared to listen to the other. Persuasion is out, compulsion is in.

Whether IPRs are a good or bad thing, the developed world has come to an accommodation with them over a long period. Even if their disadvantages sometimes outweigh their advantages, by and large the developed world has the national economic strength and established legal mechanisms to overcome the problems so caused. Insofar as their benefits outweigh their disadvantages, the developed world has the wealth and infrastructure to take advantage of the opportunities provided. It is likely that neither of these holds true for developing and least developed countries.

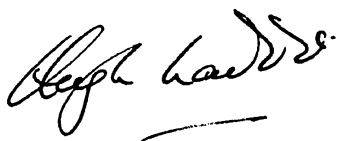
It is against that background that the Secretary of State decided to set up the Commission and ask it to consider, amongst other things, how national IPR rights could best be designed to benefit developing countries. Inherent in that remit was the acknowledgement that IPRs could be a tool which could help or

hinder more fragile economies. The Commissioners themselves represent as impressive a cross-section of relevant expertise as one could wish. They have consulted widely. This report is the result. It is most impressive.

Although the terms of reference have required the Commission to pay particular regard to the interests of developing countries, it has done this without ignoring the interests and arguments of those from the other side. As it states, higher IP standards should not be pressed on developing countries without a serious and objective assessment of their development impact. The Commission has gone a long way to providing such an assessment. This has produced a report which contains sensible proposals designed to meet most of the reasonable requirements of both sides.

However, the production of a series of workable proposals is not enough by itself. What is needed is an acceptance and will to implement them. Once again, in this respect the Commission is playing a major role. This is not the report of a pressure group. The Commission was set up to offer as impartial advice as possible. Its provenance and makeup should encourage all those to whom it is directed to take its recommendations seriously.

For too long IPRs have been regarded as food for the rich countries and poison for poor countries. I hope that this report demonstrates that it is not as simple as that. Poor countries may find them useful provided they are accommodated to suit local palates. The Commission suggests that the appropriate diet for each developing country needs to be decided on the basis of what is best for its development, and that the international community and governments in all countries should take decisions with that in mind. I very much hope this report will stimulate them to do so.

A handwritten signature in black ink, appearing to read "Hugh Laddie". The signature is written in a cursive, slightly slanted style. Below the signature is a short horizontal line.

SIR HUGH LADDIE
UK High Court Patents Judge

EXECUTIVE SUMMARY

This Executive Summary is drawn from the Commission's full report, "Integrating Intellectual Property Rights and Development Policy". This document provides the main elements of the analysis and recommendations from each chapter of the full report. It does not cover all the issues, nor is it intended to substitute for reading of the main report where the context, evidence and arguments are considered in detail.

OVERVIEW

The Millennium Development Goals recognise the importance of reducing poverty and hunger, improving health and education, and ensuring environmental sustainability. Accordingly, the international community has committed itself to reducing the proportion of people in poverty by half by 2015. In 1999, an estimated 1.2 billion people survived on less than one dollar a day, and nearly 2.8 billion people lived on less than two dollars a day. About 90 percent of these people were in South or East Asia or sub-Saharan Africa. HIV/AIDS, tuberculosis, and malaria claim millions of lives in these countries every year. For more than 120 million children of primary school age, education is out of reach.

Developing countries are far from homogeneous, a fact which is self-evident but often forgotten. Not only do their scientific and technical capacities vary, but also their social and economic structures, and their inequalities of income and wealth. The determinants of poverty, and therefore the appropriate policies to address it, will vary accordingly between countries. The same applies to policies on IPRs. Policies required in countries with a relatively advanced technological capability where most poor people happen to live, for instance India or China, may well differ from those in other countries with a weak capability, such as many countries in sub-Saharan Africa. The impact of IP policies on poor people will also vary according to socio-economic circumstances. What works in India, will not necessarily work in Brazil or Botswana.

Some argue strongly, particularly in business and government in developed countries, that IPRs help stimulate economic growth and reduce poverty. They say there is no reason why what works so well for developed countries could not do the same in developing countries. Others, particularly from developing countries and NGOs, argue the opposite equally vehemently. IP rights can do little to stimulate invention in developing countries, because the prerequisite human and technical capacity may be absent. Moreover, they increase the costs of essential medicines and agricultural inputs, hitting poor people and farmers particularly hard.

During the last 20 years or so, the level, scope, territorial extent, and role of IP protection have expanded at an unprecedented pace. Genetic materials have become widely patented. IP rights have been modified or created to cover new technologies, particularly biotechnology and information technology. Technologies produced in the public sector are routinely patented. The World Trade Organisation (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) has extended minimum standards for IP protection globally. There are continuing discussions in WIPO aimed at further harmonisation of the patent system, which may supersede TRIPS. Moreover, bilateral or regional trade and investment agreements between developed and developing countries often include mutual commitments to implement IP regimes that go beyond TRIPS minimum standards. Thus there is sustained pressure on developing countries to increase the levels of IP protection in their own regimes, based on standards in developed countries.

The functioning of IPR systems raises genuine concerns, even in developed countries. The submission of patent applications has increased tremendously in recent years – as has the perception that many patents of “low quality” and broad scope are being issued. Companies may incur considerable costs, in time and money, determining how – or whether - to conduct research without infringing upon other companies’ patent rights, or defending their own patent rights against other companies. This raises questions as to whether the substantial costs involved in patent litigation are a necessary price to pay for the incentives offered by the patent system, or whether ways can be found to reduce them. How does this proliferation of patents affect competition and research?

The concerns about the impact of IP in developed countries are important for developing countries as well. Developing countries can learn from the experience of developed countries in devising their own systems. In addition, the IP system in developed countries has had direct impacts on developing countries. Restrictions on access to materials and data on the Internet can affect everyone. IP rules and regulations may be hampering research on important diseases or new crops that affect developing countries but that is actually carried out in developed countries. Developing countries may not be sharing appropriately in the benefits from commercialisation of their knowledge or genetic resources when they are patented in developed countries.

The Commission’s fundamental task was to consider whether the rules and institutions of IP protection as they have evolved to date can contribute to development and the reduction of poverty in developing countries. We believe that IP protection of some kind is appropriate at some stage for developing countries. The system provides incentives to invent and develop new technologies that may benefit society.

But incentives work differently, depending on the supply response they evoke. They impose costs on consumers and other users of protected technologies. The balance of costs and benefits will vary according to how the rights are applied and according to the economic and social circumstances of the country where they are being applied. Standards of IP protection that may be suitable for developed countries may produce more costs than benefits when applied in developing countries, which rely in large part on knowledge generated elsewhere to satisfy their basic needs and foster development.

Although most developing countries do not have a strong technological base, they do have genetic resources and traditional knowledge that are of value to them and to the world at large. This gives rise to a further key question. Can the “modern” IP system help to protect these resources of knowledge and ensure that the benefits of their use are equitably shared? At the other end of the scale, the Internet offers enormous opportunities for access to scientific and research information needed by developing countries, whose access to traditional media may be limited by lack of resources. But forms of encryption and IP rules may, paradoxically, make this material less accessible than it is now with printed material.

It also needs to be considered what sort of rights IP protection confers. The conferring of IP rights is an instrument of public policy, which should be designed so that the benefit to society (for instance through the invention of a new drug or technology) outweighs the cost to society (for instance, the higher cost of a drug and the costs of administering the IP system). But the IP right is a private one, so the financial benefits and costs fall on different groups within society. The IP right is best viewed as one of the means by which nations and societies can help to promote the fulfilment of human economic and social rights. In particular, there are no circumstances in which the most fundamental human rights should be subordinated to the requirements of IP protection. IP rights are granted by states for limited times (at least in the case of patents and copyrights) whereas human rights are inalienable and universal. For the most part IP rights are nowadays generally treated as economic and commercial rights, as is the case in TRIPS, and are more often held by companies rather than individual inventors. But describing them as “rights” should not be allowed to conceal the very real dilemmas raised by their application in developing countries, where the extra costs they impose may be at the expense of the necessities of life for poor people.

We believe policy makers need to consider the available evidence, imperfect as it may be, before further extending IP rights. Too often, the interests of the “producer” dominate in the evolution of IP policy, and those of the ultimate consumer are either not heard or heeded. In IPR discussions between developed and developing countries, a similar imbalance exists. Developing countries negotiate from a position of relative weakness. The difficulty is that they are “second comers” in a world that has been shaped by the “first comers.” The question is how they can mould their IP systems to suit their own economic, social, and technological conditions, as developed countries did in the past.

Intellectual property systems may, if we are not careful, introduce distortions that are detrimental to the interests of developing countries. Developed countries should pay more attention to reconciling their commercial self-interest with the need to reduce poverty in developing countries, which is in everyone's interest. Higher IP standards should not be pressed on developing countries without a serious and objective assessment of their impact on development and poor people. We need to ensure that the global IP system evolves so that the needs of developing countries are incorporated and, most importantly, so that it contributes to the reduction of poverty in developing countries by stimulating innovation and technology transfer relevant to them, while also making available the products of technology at the most competitive prices possible.

We hope that our endeavour will contribute to an agenda for making the global IPR system, and the institutions in that system, work better for poor people and developing countries.



Chapter 1: INTELLECTUAL PROPERTY AND DEVELOPMENT

Patents and copyright inherently confer both costs and benefits to individuals and companies, and to society at large. They provide an incentive for invention or creation that may benefit society, as well as the rights holder, but they also impose costs on the users of protected works.

Historically, now-developed countries used IP protection as a flexible instrument to help promote their industrialisation. Discrimination against foreigners – by refusing them the right to IP protection or by charging higher fees – was common, as was the exclusion of entire sectors, such as food or pharmaceuticals, from patentability. In some countries, the patent system was fully implemented only well into the 20th century. The East Asian countries, the most successful recent examples of development, have grown and developed their scientific and technical capabilities in the context of weak IP regimes. Now, under TRIPS and growing pressures for harmonisation, most developing nations are restricted in how they can apply the IP system. They may not discriminate among fields of technology, or by nationality, and the use of various tools of IP policy that were used historically are circumscribed under TRIPS.

The contemporary evidence suggests that, because developing countries are large net importers of technology from the developed world, the globalisation of IP protection will result in very substantial additional net transfers from developing to developed countries. The benefits to developing countries from IP protection would have to come from an offsetting dynamic stimulus to trade, the development of technology, investment, and growth.

In developed countries, strong evidence suggests that certain types of companies, particularly the pharmaceutical industry, consider IPRs are essential in promoting innovation. However, there is much less evidence from developing countries indicating that IPR systems are a key stimulus for innovation. Indeed, for most developing countries with weak technological capacity, the evidence on trade, foreign investment, and growth suggests IP protection will have little impact. Nor is it likely that the benefits of IP protection will outweigh the costs in the foreseeable future. For more technologically advanced developing countries, the balance is finer. Dynamic gains may be achieved through IP protection, but at costs to other industries and consumers.

The crucial issue in respect of IP is perhaps not whether it promotes trade or foreign investment, but how it helps or hinders developing countries to gain access to technologies that are required for their development. Countries such as Korea started at a low level of technological expertise forty years ago, comparable to many low-income countries today, but have now become innovators in their own right. Technology transfer and the development of a sustainable indigenous technological capability are determined by many factors, including but by no means limited to IPRs. Moreover, the global economy has changed fundamentally since technology transfer was last high on the international agenda when the International Code of Conduct on Technology Transfer was being discussed in the early 1980s.

In today's liberalised and competitive environment, companies in developing countries can no longer compete on the basis of importing "mature" technologies from developed countries and producing them behind tariff barriers. And companies are more wary of transferring technology in ways that may increase the competition they face. The problem is less about obtaining mature technologies on fair and balanced terms, but more about the sophisticated technologies that are required to be competitive in today's global economy. TRIPS has strengthened the global protection offered to suppliers of technology, but without any counterbalancing strengthening of competition policies globally. Therefore, it may be unwise to focus on TRIPS as a principal means of facilitating technology transfer. A wider agenda needs to be pursued, as is currently being done in the WTO. Developed countries need to give serious consideration to their policies for encouraging technology transfer. In addition, they should promote more effective research and cooperation with and among developing countries to strengthen their scientific and technological capabilities.

- **Appropriate incentive policies should be considered in developed countries to promote technology transfer, for instance tax breaks for companies that license technology to developing countries.**
- **Effective competition policies should be established in developing countries.**
- **More public funds should be made available to promote indigenous scientific and technological capability in developing countries through scientific and technological cooperation. For instance, the proposed Global Research Alliance between developing and developed country research institutions should be supported.**
- **Commitments should be made to ensure that the benefits of publicly funded research are available to all, including developing countries.**
- **Commitments to ensure open access to scientific databases.**



Chapter 2: HEALTH

Without the incentive of patents it is doubtful the private sector would have invested so much in the discovery or development of medicines, many of which are currently in use both in developed and developing countries. But the evidence suggests that the IP system hardly plays any role in stimulating research on diseases particularly prevalent in developing countries, except for those diseases where there is also a substantial market in the developed world (e.g. diabetes or heart disease). Nor is it likely that the globalisation of IP protection will lead to greater investment by the private sector for the development of treatments for diseases that primarily affect developing countries. The evidence also suggests that patent protection has an effect on the prices charged for medicines. In developed countries, generic competition causes prices to fall quite sharply, particularly if the market is large enough to support a number of generic competitors. In the absence of patents in developing countries, more people would be able to afford treatments they need. When TRIPS comes fully into force after 2005, particularly when countries such as India have to introduce patent protection, the existing competition from generic suppliers will diminish.

The IP system is one factor among several that affects poor people's access to healthcare. Other important constraints to access to medicines in developing countries are the lack of resources, and the absence of a suitable health infrastructure (including hospitals, clinics, health workers, equipment and an adequate supply of drugs) to administer medicines safely and efficaciously. Moreover, developing countries may adopt other policies, for example taxes on medicines, which adversely affect access.

As intellectual property rights are strengthened globally, the cost of medicines in developing countries is likely to increase, unless effective steps are taken to facilitate their availability at lower cost in developing countries. There are a number of IP policies that both developed and developing countries can adopt to promote cheaper prices for medicines in developing countries which the Commission does not believe will adversely affect the incentives for research on relevant diseases. One means of obtaining medicines at lower prices, amongst others discussed in the report, is for countries to use a mechanism called “compulsory licensing.” This allows countries to license the manufacture of patented medicines to other manufacturers if there are good reasons to do so (e.g. when the government considers the price of a medicine is unjustifiably high). It can also be useful as a bargaining tool in price negotiations with producers of patented medicines. For instance, the US envisaged this possibility when negotiating the price of Cipro following the anthrax attacks last year. The importance of the IP system being used to improve access to medicines and public health was emphasised in a Declaration on TRIPS and Public Health at the WTO Ministerial meeting in Doha last year.

A major issue at Doha was how countries without the capacity to manufacture medicines could procure them under the existing rules for compulsory licensing. There are a number of ways this can be achieved which are discussed in the report. A crucial issue is how this can be effected in such a way that it provides appropriate incentives for the potential suppliers of medicines and cheaper prices than the patentee is able to offer.

Apart from international measures to facilitate access to medicines, developing countries need to adopt IP rules in their legislation and practices that limit the extent of patenting and facilitate the introduction of generic competition. Doha also allowed Least Developed Countries (LDCs) to exempt pharmaceutical products from patent protection until at least 2016. But most LDCs have already provided such protection and would need to amend their legislation accordingly.

- **Because the IP system does little to stimulate research on diseases that particularly affect poor people, public funding for research on health problems in developing countries should be increased. This additional funding should seek to exploit and develop existing capacities in developing countries for this kind of research, and promote new capacity, both in the public and private sectors.**
- **Countries need to adopt a range of policies to improve access to medicines. Additional resources to improve services, delivery mechanisms and infrastructure are critical. Other economic policies need to be in harmony with health policy objectives. But so also does the IP regime. Countries need to ensure that their IP protection regimes do not run counter to their public health policies and that they are consistent with and supportive of such policies.**

- The IP system can help to establish differential pricing mechanisms, which would allow prices for drugs to be lower in developing countries, while higher prices are maintained in developed countries. If differential pricing is to work, then it is necessary to stop low priced drugs leaking back to developed countries. Developed countries should maintain and strengthen their legislative regimes to prevent imports of low priced pharmaceutical products originating from developing countries and to help maintain the price differential. However, developing countries should aim to facilitate in their legislation their ability to import patented medicines if they can get them cheaper elsewhere in the world. TRIPS allows countries to set their own rules on what are technically called “parallel imports.”
- Developing countries should establish workable laws and procedures to allow them to use compulsory licensing. They should also make similar provisions for what is called “government use.” Many developed countries have such laws that allow their governments to make use of patented inventions without infringing a patent under a wide range of circumstances.
- How the issue of facilitating compulsory licensing for developing countries with inadequate manufacturing capacity is to be resolved is currently being debated in the TRIPS Council. It raises a number of quite detailed legal and practical matters. A way needs to be found to reconcile the nature of the solution adopted with the objective of providing medicines of the appropriate quality at the lowest possible cost. If that cannot be achieved, the solution will have little practical reality. Nor will the option of compulsory licensing be effective as a negotiating tool with companies. Whatever the solution adopted, it should be capable of quick and easy implementation to ensure that the real needs of poor people in developing countries are given priority. And it should establish conditions that provide potential suppliers with the necessary economic incentive to export medicines that are needed by these countries.
- TRIPS allows considerable flexibility in how countries may design their patent systems. Since most developing countries do not have a significant research capability, they have little to gain by providing extensive patent protection as a means of encouraging research, but they stand to lose as a result of the impact of patents on prices. Therefore developing countries should aim for strict standards of patentability to avoid granting patents that may have limited value in relation to their health objectives. Such systems should aim to promote competition, and provide safeguards in the event of abuses of the patent system.
- For instance, most developing countries should exclude diagnostic, therapeutic and surgical methods from patentability, including new uses of known products, as permitted under TRIPS.

- Developing countries should also make provisions in their law that will facilitate the entry of generic competitors as soon as the patent has expired on a particular drug. One of these provisions (the “Bolar exception”) allows generic companies to develop their versions of patented drugs during the term of the patent without infringing it. Another one would be to make it easier and cheaper for generic companies to get regulatory approval for drugs similar to registered drugs, while providing for the protection of test data (e.g. clinical trials data companies require to get approval from regulators such as the FDA in the US) against unfair commercial use.
- Those LDCs which already provide pharmaceutical protection should consider carefully how to amend their legislation to take advantage of the Doha Declaration. The TRIPS Council should review the transitional arrangements for LDCs, including those applying to join the WTO, in all fields of technology.



Chapter 3: AGRICULTURE AND GENETIC RESOURCES

The Commission finds that while the amount of public resources from developed countries going into funding research relevant to poor farmers in developing countries is stagnant or declining, the dynamic element is private sector research, supported by IP protection and the demand from farmers in developed countries, and the commercial sectors of a few developing countries. This combination of trends poses the danger that research priorities overall will be increasingly less relevant to the needs of poor farmers in developing countries. Moreover the stagnation in public funding threatens, *inter alia*, the maintenance of national and international gene banks which are the principal source of the genetic material for future breeding efforts of relevance to poor farmers. While in recent years the IP rights of breeders have been increasingly strengthened, as required by TRIPS, little has been done in practice to recognise the services of farmers in the selection, development and conservation of their traditional varieties on the basis of which modern breeding techniques have built. The recently agreed FAO Treaty on Plant Genetic Resources for Food and Agriculture seeks to protect the material in gene banks and in farmers’ fields covered by the treaty from being directly patented, and also encourages countries to protect Farmers’ Rights.

Under TRIPS countries must apply some kind of IP protection to plant varieties, either patents or other kinds of protection (called *sui generis*). They must also allow microorganisms to be patentable. The Commission finds that the evidence suggests that *sui generis* systems of plant variety protection (PVP) have not been particularly effective at stimulating research on crops in general, and particularly for the kind of crops grown by poor farmers. Systems of PVP designed for the needs of commercial agriculture in the developed countries (such as provided for in the UPOV Convention) also pose a threat to the practices of many farmers in developing countries of reusing, exchanging and informally selling seeds, and may not

be appropriate in developing countries without significant commercial agriculture. Patents are commonly used in developed countries both to protect plant varieties, and to protect genetic material incorporated in plants. Because they offer a stronger form of protection than most PVP systems they may offer a stronger incentive to research, particularly in developed countries, and the multinational agrochemical companies regard them as important. However, patents also pose a threat to farmers' traditional practices of reuse and exchange. Moreover the proliferation of genetic patents owned by different companies has led to costly disputes, and difficulties in pursuing research without infringing other companies' patents. There is evidence that patents are one factor contributing to the rapid concentration in the agricultural biotechnology field, with adverse effects on the degree of competition.

- **Because of the restrictions patents may place on use of seed by farmers and researchers, developing countries should generally not provide patent protection for plants and animals, as is allowed under TRIPS. Rather they should consider different forms of *sui generis* systems for plant varieties.**
- **Because they are unlikely to benefit from the incentives to research offered by the patent system, but will have to bear the costs, developing countries with limited technological capacity should restrict the application of patenting in agricultural biotechnology, in ways that are consistent with TRIPS. For similar reasons they should adopt a restrictive definition of the term "microorganism."**
- **However countries that have, or wish to develop, biotechnology-related industries may wish to provide certain types of patent protection in this area. If they do so, specific exceptions to the exclusive rights, for plant breeding and research, should be established. The extent to which patent rights apply also to the harvested crop needs to be carefully examined. It is important that a clear exception to the patent right is included in legislation to allow for farmers' reuse of seed.**
- **The review of the relevant provisions in TRIPS which is currently taking place in the TRIPS Council, should preserve the right of countries not to grant patents for plants and animals, including genes and genetically modified plants and animals. It should also permit countries to develop *sui generis* regimes for the protection of plant varieties that suit their agricultural systems. Such regimes should permit access to the protected varieties for further research and breeding, and provide for the right of farmers to save and plant-back seed, including the possibility of informal sale and exchange.**
- **Because of the growing concentration in the seed industry, it is important that public sector research on agriculture, and its international component, should be strengthened and better funded. The objective should be to ensure that research is oriented to the needs of poor farmers, that public sector varieties are available to provide competition for private sector varieties, and that the world's plant genetic resource heritage is maintained. In addition, this is an area in which nations should consider the use of competition law to respond to the high level of concentration in the private sector.**

- **Developed and developing countries should accelerate the process of ratifying the FAO Treaty on Plant Genetic Resources for Food and Agriculture and should, in particular, implement the Treaty's provisions relating to not granting IPR protection on genetic material in the form received from gene banks protected by the Treaty. They should also implement at national level, measures to promote Farmers' Rights. These include the protection of traditional knowledge relevant to plant genetic resources; the right to participate in sharing equitably benefits arising from the utilisation of plant genetic resources for food and agriculture and the right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources.**



Chapter 4: TRADITIONAL KNOWLEDGE AND GEOGRAPHICAL INDICATIONS

There are a number of motives for protecting and promoting traditional knowledge. These include the erosion of traditional lifestyles and cultures through external pressures, misappropriation, the preservation of biodiversity and the promotion of its use for development purposes. Some wish to conserve traditional knowledge, and protect it against commercial exploitation – others wish to ensure that it is exploited in an equitable manner for the benefit of its holders. Underlying the debate on the protection of traditional knowledge may be much bigger issues such as the position of indigenous communities within the wider economy and society of the country in which they reside, and their access to, or ownership of, land they have traditionally inhabited. Given the varied reasons for protecting it and the broad nature of the subject matter, there is no one way in which it can be protected or promoted. A multiplicity of complementary measures, many of which will be outside the field of intellectual property, will be necessary. For example the type of measures required to prevent misappropriation of traditional knowledge may not be the same, indeed may not be compatible with, those needed to encourage its wider use. There is room for continued debate to clarify these complex issues.

Protection for traditional knowledge may be obtained both within the existing IP system and through the establishment of new or sui generis forms of protection. There have recently been a number of well-publicised cases of patents being granted for traditional knowledge that was already publicly known. To prevent the misappropriation of traditional knowledge through patents being taken out on such knowledge, efforts are being made to catalogue traditional knowledge in digital databases which will be accessible to examiners in all patent offices. In other cases, patent laws and practices may allow patents on “inventions” which are little more than discoveries. Some countries do not recognise the use of knowledge in other countries, as opposed to their own, as a reason for not granting patents. For example, use elsewhere might demonstrate that the claimed invention is not novel, or is obvious, even though it has not been used domestically. Even if patents are granted for valid inventions derived from genetic resources or traditional knowledge, it may be that the communities that provided such resources or

knowledge did not give their informed consent, and no arrangements for sharing any benefits from commercialisation were agreed upon.

The Convention on Biological Diversity (CBD), which most countries have signed, seeks to encourage access to the world's genetic resources provided that it is done with the informed consent of the holder of the resource and that any benefits deriving from the access are shared in an equitable manner. The extent to which the IP system should be supportive of the CBD has been the subject of much debate. At the heart of this has been the question of whether patent applicants should disclose in their applications the source of any genetic resource used in their invention.

A further debate in the WTO's TRIPS Council centres on whether the protection afforded under TRIPS to geographical indications (that is indications that identify the origins of a product as a mark of quality and provenance) should be increased through either the establishment of an international register of protected indications or through the extension of the additional protection currently available for wines and spirits to other products. Lacking in this debate however is any real economic assessment of the impact of such proposals for developing countries.

- **At this early stage in the debate on traditional knowledge, there is much to gain by considering the issue in a number of fora, while ensuring coherent approaches are developed and that effort is not duplicated.**
- **With such a wide range of material to protect and such diverse reasons for “protecting” it, it may be that a single all-encompassing sui generis system of protection for traditional knowledge may be too specific and not flexible enough to accommodate local needs.**
- **The digital libraries of traditional knowledge that are now being created, should, as soon as it is practical, be incorporated into the minimum search documentation lists of patent offices therefore ensuring that the data contained within them will be considered during the processing of patent applications. Holders of the traditional knowledge should play a crucial role in deciding whether such knowledge is included in any databases and should also benefit from any commercial exploitation of the information.**
- **Countries that only include domestic use in their definition of prior art should give equal treatment to users of knowledge in other countries. Account should be taken of the unwritten nature of much traditional knowledge in any attempts to develop further the patent system internationally.**

- The principle of equity dictates that a person should not be able to benefit from an IP right based on genetic resources or associated knowledge acquired in contravention of any legislation governing access to that material.
- In such cases the burden should generally lie with the custodian of the knowledge to prove that the IP holder has acted improperly. But this requires that the custodian is aware of what has been done.
- For this reason, all countries should provide in their legislation for the obligatory disclosure of information in the patent application of the geographical source of genetic resources from which the invention is derived. This requirement should be subject to reasonable exceptions as, for example, where it is genuinely impossible to identify the geographical source of material. Sanctions should be applied only where it can be shown that the patentee has failed to disclose the known source or where he has sought to deliberately mislead about the source. The Council for TRIPS should consider this in the light of the review of this issue recommended in the WTO Ministerial Declaration at Doha.
- Consideration should also be given to establishing a system whereby patent offices examining patent applications which identify the geographical source of genetic resources or traditional knowledge pass on that information either to the country concerned, or to WIPO. WIPO may act as a depository for patent related information of this nature. Through these measures it will be possible to monitor more closely the use and misuse of genetic resources
- In respect of geographical indications, further research should be undertaken by a competent body, possibly UNCTAD, to assess the benefits and costs to developing countries of the existing provisions under TRIPS, what role they might play in development, and the costs and benefits of various proposals to extend geographical indications and establish a multilateral register.

Chapter 5: COPYRIGHT, SOFTWARE AND THE INTERNET

There are examples of developing countries, which have benefited from copyright protection. The Indian software and film industry are good examples. But other examples are hard to identify. Many developing countries have had copyright protection for a long time but it has not proved sufficient to stimulate the growth of copyright-protected industries. Because most developing countries, particularly smaller ones, are overwhelmingly importers of copyrighted materials, and the main beneficiaries are therefore foreign rights holders, the operation of the copyright system as a whole may impose more costs than benefits for them. There are flexibilities in copyright which exist in international treaties (such as the Berne Convention) to allow copying particularly for personal and education use. These are known variously as "fair use" or "fair dealing" provisions. These have generally not proved adequate to meet the needs of developing countries, particularly in the field of education.

Developing countries need to put in place effective systems for enforcing rights. However, in many cases (e.g. software) the absolute scale of estimated losses from illicit copying is higher in developed countries. And weak levels of enforcement have undoubtedly had a major impact in some areas on the diffusion of knowledge and knowledge-based products in the developing world. Indeed, many poor people in developing countries have only been able to access certain works through use of unauthorised copies available at a fraction of the price of the original. An inevitable impact of stronger protection and enforcement, as required by TRIPS, will therefore be to reduce access to knowledge-related products in developing countries, with potentially damaging consequences for poor people. For instance, the cost of software is a major problem for developing countries, and the reason for the high level of illicit copying. Copyright can also be a barrier to the further development of software which is specifically adapted to local needs and requirements.

Access to the Internet in developing countries is limited, although growing rapidly in most countries. But the Internet provides an unrivalled means of low cost access to knowledge and information required by developing countries, when their access to books and journals is severely restricted by lack of resources. But the application of copyright rules to the Internet is problematic. And historic “fair use” rights may be restricted by forms of technological protection, such as encryption, which restrict access even more stringently than copyright. In the USA, recent legislation (the Digital Millennium Copyright Act - DMCA) forbids the circumvention of such technological protection, even when the purpose of circumvention does not contravene copyright laws. The EU has introduced a special form of protection of databases (the “Database Directive”), which rewards investment in the creation of databases, and which may restrict access to data by scientists or others, including in developing countries. The 1996 WIPO Copyright Treaty contains elements which may restrict the access of developing countries to information.

- **Publishers, including those on-line, and software producers should review their pricing policies to help reduce unauthorised copying and to facilitate access to their products in developing countries. Initiatives being undertaken by publishers to expand access to their products for developing countries are valuable and we encourage an expansion of such schemes. The extension of free on-line access initiatives for developing countries to cover all academic journals is a good example of what could be done.**
- **In order to improve access to copyrighted works and achieve their goals for education and knowledge transfer, developing countries should adopt pro-competitive measures under copyright laws. They should be allowed to maintain or adopt broad exemptions for educational, research and library uses in their national copyright laws. The implementation of international copyright standards in the developing world must be undertaken with a proper appreciation of the continuing high level of need for improving the availability of these products, and their crucial importance for social and economic development.**

- **Developing countries and their donor partners should review policies for procurement of computer software, with a view to ensuring that options for using low-cost and/or open-source software products are properly considered and their costs and benefits carefully evaluated. In order that software can be adapted to local needs, developing countries should ensure that their national copyright laws permit the reverse engineering of computer software programmes, in ways that are consistent with relevant international treaties which they have signed.**
- **Internet users in developing nations should be entitled to fair use rights such as making and distributing printed copies from electronic sources in reasonable numbers for educational and research purposes, and using reasonable excerpts in commentary and criticism. Where suppliers of digital information or software attempt to restrict “fair use” rights by contract provisions associated with the distribution of digital material, the relevant contract provision may be treated as void. Where the same restriction is attempted through technological means, measures to defeat the technological means of protection in such circumstances should not be regarded as illegal. Developing countries should think very carefully before joining the WIPO Copyright treaty. Countries should also not follow the lead of the US and the EU by implementing legislation on the lines of the DMCA or the Database Directive.**



Chapter 6: PATENT REFORM

The heterogeneous nature of developing countries, especially in their technical and scientific capacities, means that they need to choose an IP system which they feel best meets their development objectives, and economic and social circumstances. The more technologically advanced developing countries may wish to adopt systems that provide extensive patent protection as incentives for R&D. On the other hand, they would also wish to avoid those aspects of the system which could provide disincentives to R&D, or which could lead to resources being diverted to litigation and disputes about patents of doubtful validity. Such systems would need to have adequate safeguards to ensure a competitive environment, and to minimise costs for consumers. This is especially important in those areas of technology such as pharmaceuticals and agriculture where the cost of providing strong patent protection is likely to be greatest.

For the vast majority of developing countries, especially those with low incomes which rely principally on imported goods and technology, the best system might be one which applies strict standards of patentability and results in fewer patents meeting the criteria for patentability. This may be preferable to a more extensive system of protection, of benefit principally to foreign patent holders. A second tier of protection based on a form of patents known as utility models which offer protection based on lower thresholds of patentability, may be more appropriate than the full patent system to the economic circumstances of many developing countries.

Because much of the scientific and technological expertise in developing countries is concentrated in the public sector, there will need to be careful consideration of the implications of following developed countries in encouraging more patenting by research institutions and universities. Developing countries need to consider the issues raised in developed countries about the incentives and disincentives this offers in the application of technologies invented in these institutions, and about how it might affect research priorities.

The patent rules applying in developed countries are also important since much research relevant to developing countries may be carried out in developed countries, or in collaborative efforts with developed country researchers. Of particular concern are patents on tools essential for research, for example particular gene sequences in the field of biotechnology. An increase in patenting of such research tools in developed countries might hinder research relevant to developing countries. Developing countries also need to avoid, as far as possible, the same problems arising in their patent systems.

Developing countries already face formidable obstacles in implementing patent systems. There is strong pressure to harmonise the international patent system in order to overcome the problems faced, mainly in developed countries, in coping with the pressure of rapidly growing patent applications. Because the system is essentially national or regional, there is much apparent duplication of procedures, such as search and examination, which harmonisation could eliminate. The danger for developing countries is that harmonisation would be around developed country standards of protection, which may not be suitable for them. For developing countries the concern must be to ensure that they do not accept in these discussions new international rules further limiting their freedom to design appropriate patent policies, unless it can be shown it is in their interests to do so.

- **Developing countries should, within the constraints of international and bilateral obligations, provide a pro-competitive patent system that limits the scope of subject matter that can be patented; applies strict standards of patentability; facilitates competition; includes extensive safeguards against abuses of patent rights; and encourages local innovation.**
- **Developing countries which provide patent protection for biotechnological inventions should ensure that patenting guidelines are such that the use of patented inventions by other researchers is limited as little as possible. For instance, if patents over genes are allowed, the guidelines should provide that the patent only covers uses set out in the patent, not other uses of the same invention which others may uncover. This will facilitate further research in the area of the patent.**

- Policy makers in developing countries should consider the establishment of utility model protection for stimulating and rewarding such innovations, rather than diluting patentability standards. This should help to provide incentives for the incremental type of innovations that predominate in many developing countries.
- Whilst there is a role for IP in developing countries' public research institutions to promote the transfer and application of technologies, it is important that:
 - Generating alternative sources of funding is not seen as the principal goal, which is rather to promote technology transfer.
 - Care be taken to ensure that research priorities, particularly as regards the technology requirements of the poor, be it in agriculture or health, are not distorted by the search for a larger licensing income.
 - Patenting and licensing should only be undertaken where it is judged necessary to encourage private sector development and the application of technologies.
 - Careful consideration be given to the need to take out "defensive" patents on important inventions, particularly for use as a bargaining tool where complementary technologies are owned by private sector entities and cross-licensing may be required to access those technologies.
 - Getting the balance right requires the development of expertise in IP in public sector institutions which traditionally have had none, without losing sight of the objectives of public policy for research.
- It is important in developing initiatives aimed at facilitating access to essential research tools, that attention continues to be paid to opportunities to improve patent systems, in both developed and developing countries, to obviate some of the problems these initiatives are seeking to address.
- Developing countries need to identify a strategy for dealing with the risk that further harmonisation of patent laws internationally will lead to standards that do not take account of their interests. Such a strategy might seek a global standard reflecting the recommendations of this report. It could seek continued flexibility in the standards. Or it could be done by rejection of the process if it appears that the outcome will not be in the interests of developing countries.



Chapter 7: INSTITUTIONAL CAPACITY

For most developing countries, the implementation of TRIPS, and the adaptation to new and rapidly evolving areas of IP (for example in biotechnology and software) requires changes to IP legislation. Many developing countries face particular difficulties in developing a co-ordinated IP policy. Formulation of IP policy in a developing country should be based on a sound appreciation of how the IP system might be used to promote development objectives, and widespread consultation and dialogue with those in the economic sectors most likely to be affected. However many developing countries have weak institutional capacity, and in particular lack experienced and skilled personnel.

Developing countries need to consider the institutional options for implementing IP regimes in the face of shortages of skilled personnel, and how IT systems can be most effectively used for administration as well as searches. A critical issue is whether to use a registration or search and examination system for patents. The former, which involves just a basic check of the patent application, minimises requirements for skilled personnel in the patent office but makes it difficult to implement a patent system of the kind described in this report. Because of human resource problems, implementing the latter system, which involves a detailed check of the validity of the patent application and its adherence to patentability criteria, is more challenging. There are a number of strategies, including using international and regional approaches to facilitate search and examination, and contracting out to other government departments or universities with appropriate expertise, which developing countries may consider to resolve this dilemma.

The establishment and operation of an IP system is costly, and developing countries should not divert resources from already over-extended health and education budgets to subsidise the administration of a system for IPRs. Since the main beneficiaries of IP rights in most developing countries are foreign companies, it seems appropriate that the costs of IP administration should be principally borne by them through an appropriate fee structure.

IPRs are valuable to rights holders only if they are well enforced, which implies that legal systems need to be effective. And legal systems must also have the capacity to reject IP rights which are invalid. However, state enforcement of IPRs and enforcement through the criminal justice system are expensive, and in many countries judicial systems are under severe pressure, particularly in the area of commercial law. The “private” nature of IP rights supports the option of dispute resolution either out of court or under civil law in order to reduce the enforcement burden.

IP rights holders from developing countries also face difficulties in enforcing their rights in developed countries because of the prohibitive costs of taking action in the courts.

Developed countries have evolved their IP regimes along with other forms of regulation to promote competition. This acts as a safeguard when the IP system is used in a way that unduly reduces competition. But developing countries generally have rather weak and ineffective mechanisms for regulating anti-competitive practices, or none at all. And putting into place effective competition legislation, and the institutions that go with it, is as challenging as establishing an IP regime. Developing countries may need to consider strengthening their competition policies, which is desirable on other grounds as well, not just as a complement to IPRs.

Under TRIPS, developed countries are obliged to provide technical and financial assistance to developing countries to facilitate its implementation. Most developed countries provide some sort of intellectual-property related technical assistance to developing countries. But the quality and quantity of this assistance needs to be assessed and evaluated. The results of much technical assistance do not seem commensurate with the effort and resources put into it. Assistance from different providers may be insufficiently coordinated, and insufficiently integrated with other forms of development assistance.

- **Developing countries and donors should work together to ensure that national IP reform processes are properly “joined-up” with related areas of development policy. Greater efforts are needed to encourage more participation by national stakeholders in IP reforms. In providing technical assistance, donors should help build the capacity of local institutions to undertake IP policy research and dialogue with stakeholders, in addition to providing international experts and legal advice.**
- **Developing countries should aim to recover the full costs of upgrading and maintaining their national IP infrastructure through the fees charged to users of the system. They should also consider adopting a tiered system of fees for IPR registration. The level of charges to users should be regularly reviewed to ensure that they enable full recovery of the costs of administering the system.**
- **In order to minimise costs, developing countries should ensure that their IP legislation and procedures emphasise, to the maximum possible extent, enforcement of IPRs through administrative action and through the civil rather than criminal justice system. Enforcement procedures should be fair and equitable to both parties and ensure that injunctions and other measures are not used unduly by IP rights holders to block legitimate competition. Public funds and donor programmes should mainly be used to improve IP enforcement as part of broader strengthening of the legal and judicial systems.**

- **Developed countries should implement procedures to facilitate effective access to their intellectual property systems by inventors from developing nations. These might include, for example, fee differentials that favour poor or non-profit inventors, pro bono systems, arrangements for recovery of legal fees by prevailing parties in litigation, or inclusion of appropriate IP implementation costs in technical assistance programmes.**
- **Developed countries and international institutions which provide assistance for the development of IPR regimes in developing countries should provide such assistance in concert with the development of appropriate competition policies and institutions.**
- **WIPO, EPO and developed countries should significantly expand their programmes of IP-related technical assistance. The additional financing required could be raised through modest increases in IPR user-fees, such as charges for the PCT (the international system for filing patent applications) rather than from already over-stretched aid budgets. Donors could also seek to direct more technical assistance at LDCs in view of their special needs in developing an IP regime, as well as the wider institutional infrastructure they require for effective enforcement and regulation.**
- **IP-related technical assistance should be organised in relation to an individual country's specific development needs and priorities. One way to do this is to incorporate such assistance within the Integrated Framework for Trade-Related Assistance which aims to facilitate better integration of national development plans and donor assistance strategies.**
- **Donors should strengthen systems for the monitoring and evaluation of their IP-related development co-operation programmes. As an important first step, a working group of donors and developing countries should be established to commission and oversee a sector-wide impact review of IP-related technical assistance to developing countries since 1995. A team of external evaluators should carry out this review.**

Chapter 8: THE INTERNATIONAL ARCHITECTURE

The principal international institutions responsible for the evolution of international IP policy are WIPO and the WTO. WIPO is the principal international institution responsible for organising the negotiation of IP Treaties and their administration. WTO has a much wider mandate than WIPO, but is important in the development of IP policy, because WTO rules, particularly the dispute settlement mechanism, give it a greater enforcement capacity. WIPO's mission, as stated in its articles, is to promote IP protection globally, and the harmonisation of national legislation. It is not required by its articles to consider both

the benefits and the costs of IP protection in developing countries, or the complex links between IP protection and development.

The flexibilities available to developing countries under TRIPS (for example, in setting patentability rules, or grounds for compulsory licensing) have not always been fully utilised by developing countries. This may be because of an informed decision not to do so but those countries may also be constrained by other commitments, such as bilateral agreements, or because those in charge of the legislative process are not sufficiently aware of the options available, or the full implications of them. Many developing countries are heavily dependent on model laws and technical assistance provided by WIPO, although other regional and national IP offices in developed countries also play a significant role in providing advice. Although some value WIPO's advice highly, concerns have been expressed about whether its advice to developing countries fully takes account of the flexibilities in TRIPS, and considers the most appropriate use of these in relation to a country's particular economic and social circumstances.

Developing countries are required to adopt TRIPS standards of protection by an arbitrary date, 2006 if they are LDCs. The challenge of achieving this is formidable and will incur significant costs if an IP regime is established that is inappropriate to their level of development. There are strong arguments for the desirability of developing countries determining for themselves the optimum time to strengthen IP protection. There are provisions in TRIPS for the extension of the transition period for LDCs, and the Doha Declaration initiated this process by extending exemptions from patent protection for pharmaceuticals to 2016.

Developed countries to a degree have a legitimate interest in the IP standards of their trading partners. But regional and bilateral agreements that encourage developing countries to adopt higher standards of IP protection, beyond TRIPS, can undermine the multilateral system by limiting use by developing countries of flexibilities and exceptions permitted in TRIPS and other treaties. And those higher standards may not be appropriate to the stage of development of the country concerned.

Active participation by developing countries in discussions of the future of the IP system is essential to ensure both the legitimacy of standard setting and its appropriateness and relevance to nations at very different levels of development. Effective participation by developing countries depends on the expertise and experience of their representatives, who may not be familiar with some of the technical subjects being discussed in WIPO and the WTO TRIPS Council. Developing countries also get advice on IP matters from a wide variety of sources, which has some advantages in terms of diversity, but the advice will also often reflect the perspective of those giving it, rather than necessarily the best interests of the country concerned.

NGOs have made a generally positive contribution to voicing concerns about the impact of IP on developing countries. For example, public awareness campaigns by development and health NGOs were important factors in supporting developing countries in negotiating the Declaration on TRIPS and Public Health at Doha. In the area of agriculture and genetic resources, NGOs have also played a prominent role.

Some have asked exactly whom NGOs represent and to whom they are accountable. This is a legitimate concern, and it is therefore crucial to ensure that their role is constructive in relation to a proper appreciation of the interests of developing countries. At the same time, they can play an important role in international dialogue on these issues.

International rules on IP are developing very quickly. As the rules evolve, it is important that their actual and potential impact be properly understood if policymaking is to be more firmly based on evidence, and less on preconceptions of the value or otherwise of these rules to developing countries. However, relatively little research has so far been undertaken to understand the impact.

- **WIPO should act to integrate development objectives into its approach to the promotion of IP protection in developing countries. It should give explicit recognition to both the benefits and costs of IP protection and the corresponding need to adjust domestic regimes in developing countries to ensure that the costs do not outweigh the benefits. It is for WIPO to determine what substantive steps are necessary to achieve this aim but it should as a minimum ensure that its advisory committees include representatives from a wide range of constituencies, and in addition, seek closer cooperation with other relevant international organisations such as the WHO, FAO, UNCTAD and the World Bank.**
- **Unless they are clearly able to integrate development objectives into their operations by means of appropriate reinterpretation of their articles, WIPO member states should revise the WIPO articles to allow them to do so.**
- **WIPO should take action to make effective its stated policy of being more responsive to the need to adapt its IP advice to the specific circumstances of the particular developing country it is assisting. It, and the government concerned, should involve a wider range of stakeholders in the preparation of IP laws both within government and outside, and both potential producers and users of IP. Other providers of technical assistance to developing countries should take equivalent steps.**
- **LDCs should be granted an extended transition period for implementation of TRIPS until at least 2016. The TRIPS Council should consider introducing criteria based on indicators of economic and technological development for deciding the basis of further extensions after this deadline. LDCs that have already adopted TRIPS standards of IP protection should be free to amend their legislation if they so desire within this extended transition period.**
- **Although developing countries have the right to opt for accelerated compliance with or the adoption of standards beyond TRIPS, if they think it is in their interests to do so, developed countries should review their policies in regional/bilateral commercial diplomacy with developing countries so as to ensure that they do not impose on developing countries standards or timetables beyond TRIPS.**

- **WIPO should expand its existing schemes for financing representatives from developing countries so that developing countries can be effectively represented at all important WIPO and WTO meetings which affect their interests. It would be for WIPO and its member states to consider how this might most effectively be done and financed from WIPO's own budgetary resources.**
- **UNCTAD should establish two new posts for Intellectual Property Advisers to provide advice to developing countries in international IP negotiations. We suggest that DFID should consider the initial funding of these posts as a follow-up to its current TRIPS-related project funding to UNCTAD.**
- **WTO and WIPO should increase the opportunities for civil society organisations to play their legitimate roles as constructively as possible. For instance, this could be done by inviting NGOs and other concerned civil society groups to sit on, or observe, appropriate advisory committees and by organising regular public dialogues on current topics in which NGOs could participate.**
- **Research sponsors, including WIPO, should provide funds to support additional research on the relationships between IP and development in the subject areas we have identified in our report. The establishment of an international network and an initiative for partnership amongst research sponsors, developing country governments, development agencies and academic organisations in the IP field could help by identifying and co-ordinating research priorities, sharing knowledge and facilitating wider dissemination of findings. In the first instance we recommend that DFID, in collaboration with others, take forward the definition of such an initiative.**

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[A full list of the organisations consulted is presented in the main report]

ACRONYMS

AIDS	– Acquired Immunodeficiency Syndrome
CBD	– Convention on Biological Diversity
DFID	– Department for International Development (UK)
DMCA	– Digital Millennium Copyright Act
EPO	– European Patent Office
FAO	– Food and Agriculture Organisation (UN)
FDA	– Food and Drug Administration (US)
HIV	– Human Immunodeficiency Virus
IP	– Intellectual Property
IPRs	– Intellectual Property Rights
LDC	– Least Developed Country
NGO	– Non-Governmental Organisation
PCT	– Patent Cooperation Treaty
PVP	– Plant Variety Protection
R&D	– Research and Development
TRIPS	– Agreement on Trade-Related Aspects of Intellectual Property Rights
UNCTAD	– United Nations Conference on Trade and Development
UPOV	– International Union for the Protection of New Varieties of Plants
WIPO	– World Intellectual Property Organisation
WTO	– World Trade Organisation

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