CHAPTER- I

INTRODUCTION

1.1 Background of the Study

Intellectual Property Rights (IPR) involves the very basic instinct of paternity. IPRs relate to the primary notion of paternity between an author or an inventor and his work. It refers to creative ideas having commercial value. The WTO says that: “intellectual property rights are the rights given to persons over the creations of their minds. They usually give the creator an exclusive right over the use of his\her creation for a certain period of time” (www.wto.org). There are two intellectual property rights regimes: Copy Right and Industrial Property.

The second encompasses a number of branches of intellectual property rights including patent, designs, and trademark, layout designs of integrated circuits, geographical indications, trade secrets and control of anti competitive practices (Bhandari, 2004).

The history of IPRs goes back to 1883 when the Paris Convention was signed to provide protection to industrial property. It was followed by the Berne Convention (1886), which provides protection to literary and artistic work. These conventions have been amended several times and still form the backbone of the global IPR system. In order to coordinate all IPR- related conventions and treaties, the United Nations (UN) system created the World Intellectual Property Organization (WIPO) in 1967. With the emergence of the post- industrialized world stage, especially after the rise of wide international blocs, IPR protection became, gradually , an object of huge concern, rather than a mere segmental issue (Machado: 1996).

In the context world economic development, Nepal is probably least developed country, which is also lagging behind in respect of intellectual property system. The government does not have specific policy and long term vision document in this regard. (WIPO seminar: 2005).

First intellectual property related law came into enforcement in Nepal in 1937 with promulgation of Patent, Design and Trademark Act. Patent, Design and Trademark Act, 1965 replaced the first act and is still in force. Present Act also provides intellectual property rights in respect of industrial property of foreign origin as well. This act, having

undergone an amendment in 1987, regulates present industrial property system, of Nepal. In respect of another important field of IPR, the right over the artistic and literary work which is popularly known as copyright came into the legal setup only in 1965 by enactment of Copyright Act, 1965. The enactment of new Copyright Act, 2002, compatible with various international conventions and treaties as well as national and international needs and practices made significant improvement in legal arrangement for protecting the rights of literary and artistic works.

Nepal has entered into global multilateral trading regime, WTO as the 147th member. In depth analysis is required to identify the possible opportunities and threats of WTO membership to various sectors in the country. Trade Related Aspect of Intellectual Property Rights (TRIPs) is one of the visible threats from WTO membership. (Sherestha: 2005). The TRIPS is one of the most contentious agreements ever farmed under WTO regime. The agreement allows the patenting of ideas, expressions, innovations, creations and technology. Nepal needs to abide fully by the provisions of the TRIPS Agreement from one January, 2007. (Sherestha: 2005).

Intellectual property law is one of the fastest growing branches of law in the world today. The phenomenon technological development in transport and communications has resulted in the globalization of trade and commerce. This has its impact on patent, which is assuming international character. The reason is not political or economic but technological. Patents give temporary protection to technological inventions. It is monopoly right granted to a person who has invented a new and useful article or an improvement of an existing article or a new process of making article. The objective of granting patents is to encourage and develop new technology and industry. After the expiry of duration of patent, anybody can make use of the inventions. The protection given by a patent is generally territorial. It is limited to the country in which it was granted. However, it is possible to obtain patent protection in more than one country through a single application. The Paris Convention ensures that nationals of one member state will have the same level of patent protection in any other member state, which the later grants to it own national.

In the increasingly knowledge driven economy, Intellectual Property (IP) is a key consideration in day to day business decision. New products, brands and creative designs

appear almost daily on the market and are the result of continues human innovation and creativity. Small and Medium sized Enterprises (SMEs) are often the driving force behind such innovations; their innovative and creative capacity, however, is not always fully exploited. As many SMEs are not aware of the intellectual property system or the protection, it can provide for their inventions, brands and designs. Many new products or services embody different types of intellectual property. Forward looking enterprises face the challenge of extracting latest value of their IP and using it effectively in their business strategy. Companies that dedicate time and resources for protecting their intellectual property assets can increase their competitiveness in a variety of ways.

Intellectual Property helps in:

- Preventing competitors from copying or closely imitating a company's product or services.
- Avoiding wasteful investment in research and development (R&D) and marketing.
- Creative a corporate identify through a trademark and branding strategy.
- Negotiating, licensing, franchising or other IP based contractual agreements.
- Increasing the market value of the company.
- Acquiring the market venture capital and enhancing access to finance.
- Obtaining access to new markets.

Technology is the harbinger of development. It is not manna falling from the heaven; rather it is generated by mature corporate entities. Once a new technology comes into harness, it affects the whole gamut of development in every sphere of life. It also helps to develop the level of consciousness of the people and thereby upgrades the prevailing socio-political system. In the twenty first century, the motivation of social change is not ideology as it is used to be in the past. It is technology which creates change and development. Technology has been the master of the industrialization process in both Europe and United States in nineteenth century and even more strikingly of Japan in the twentieth century. The United States may be a good example as to how social changes come forward once a nation copes up with technology. Until 1932, women were barred in the USA from voting. Till 1962, there were separate taps for blacks and whites. It is with in these forty five years that USA has become super power of the world.

In addition, the economic value of information has increased dramatically due to development of technology. Now information is a commodity in itself, independent of goods or services. Transactions involving information in electronic from have become an essential part of social life in modern society. Once a parliamentary of Sweden had said; if Karl Marx was living today he would have written about information technology, not capital. This contention probably assesses the importance of technology in development and social change. Besides, one of the major consequences of industrial progress that the nations have achieved or have been trying to achieve is the growth in volume and verity of transactions in nature of transfer of technology. Its important emerges again and significantly stronger from the evidence of the rapid industrialization of same so called newly industrialized countries, such as South Korea, over the last two decades. However, the importance of borrowed technology in the economic development of backward countries like Nepal can hardly be over emphasized. There are certain reasons as to why TRIPs one of the landmark and controversial agreements of WTO is more concerned with transfer of technology. The foremost reason is that foreign direct investment (FDI), intellectual property rights and technology transfer are interlinked. Hence, there is conjugal determinacy of TRIPs with these factors. The other important ground is that transnational corporations (TNCs), for the past many years now, have been demonstrating their hegemony in the field of FDI and IPRs, which cover over ninety percent of the world patents. The role of the Multinational Corporations (MNCs), therefore can not be forgotten. With the world economy becoming more and more knowledge intensive, the intellectual property rights protection is likely to assume ever increasing and may be the determining factor for attracting foreign private investment in third world countries. However, there is no definite evidence yet suggesting that intellectual property protection is a single most important of FDI.

Over the recent years developing and least developing countries as well as the wider international community, have grown increasingly concerned about the implication of intellectual property rights on social, economic, technological and cultural development.(www.iprsonline.org).The impact of intellectual property has the widely debated in past years. Intellectual property protection is intended as an instrument to promote technological innovation as well as the transfer and disseminations of

technology. Intellectual property protection cannot be seen as an end itself, nor can the harmonization of intellectual property laws leading to higher protection standards in all countries, irrespective of their levels of development. The role of intellectual property and its impact on development must be carefully assessed on a case by case basis. IP protection is a policy instrument the operation of which may in actual practice, produce benefits as well costs which may vary in accordance with a country's level of development. Action is therefore, needed to insure, in all countries, that the costs do not outweigh the benefits of IP protection. (www.southcenter.org).

Intellectual Property Right is important for the indigenous people, their knowledge, technologies, and culture. Traditional products would help them preserve their intellectual wealth and prevent it from being illegally exploited. It also preserves the rights of benefit sharing. More specifically, IPR is an ethical concept which ensures ones efforts, time; money and intellectual spent for any invention is not wasted and others are not taking undue benefits from it.

Business is becoming increasingly global. Companies are developing products out globally. Thus it is only right that patent protection should also be global. The prototype for today's international patent protection system was created in Paris in 1883.while industrial nations continue to grant national patents under national law, the Paris convention provides for mutual recognition on the priority of filing date and a number of other key issues.

Patent constitutes an important aspect of the industrial property system. They are granted by the government in order to permit protection of inventions by means of an exclusive right which is limited in time. That protection provides a means for the inventor to obtain a reward for his achievement and induces him to disclose the invention and to work it in the country, where the patent is granted. An invention is a novel idea which permits in practice the solution to a specific problem in the field of technology.

Department of industries (DOI) is designated as the responsible agency of HMG for implementation of Patent, Design and Trademark Act. Thus it is regarded as the 'industrial property office' in the country. Out of 63 staff 11 staff members are working in the industrial property section, it is assumed that 25 other staff members are indirectly

involved with the jobs related to the industrial property. The industrial property section is the responsible to administrating the industrial property matters.

Office of the Copyright Register (CRO) is designated is the responsible agency of HMG for implementation of Copyright Act,2002, which is working under the Ministry of Culture, Tourism and Civil Aviation. This act is based on the WIPO model law in this respect and has been drafted with the technical assistance of WIPO.

Besides the above mentioned acts, there are some other acts which supports to intellectual property system of Nepal .Consumer Protection Act, Industrial Enterprise Act 1992, Foreign Investment and Technology Transfer Act 1992.Company Act 2053,and Export Import (Control) Act 1957 are such acts which supposed to play vital role in this regard.

1. 1. 1 Present Status of Intellectual Property Administration

Records of the DOI show that there are total marks, 60 industrial designs and 57 patent registered till 2060/2061.Only patents for invention, industrial design and trademarks are dealt as industrial property. Others types of property like utility models, various types of marks as group marks, certification marks, geographical indication as well as appellation of origin are not covered by the administration of industrial property. Regarding the number of registered marks more than 38% are of foreign origin. The department does not have clear record of live marks and dead. It assumed that the sum of total registration renewal of the marks within last seven years is the number of live marks. Another noticeable trend is that the rate of renewal of foreign origin marks is very high compared to the domestic. (WIPO Seminar Report: 2005).

Department of Industries is also administering the right over patentable intellectual property. To claim the patent right on a new invention and to acquire the design right on new industrial design an application is to be made to the department with full discloser of invention and details of new design. Department examines the application in respect of formal requirements as well as for its non obviousness, inventive step and industrial applicability in case of a patent application.

1.2 Statement of the Problem

The main IPR issue, at the international level, is not mere question on the adoption of the strong IPR system. Self-determination is the key to approaching the

matter. (Machado: 1996).The TRIPS agreement treats IPRs as economic or commercial rights. “TRIPS require all WTO members to provide minimum standards of protection for a wide range of IPR including copyright, patents, trademarks, industrial designs, geographical indications, semiconductors topographies and undisclosed information. In doing so, TRIPS incorporate provisions from many existing IP international agreements such as the Paris and Berne Convention administered by the World Intellectual Property Organization (WIPO). TRIPS however also introduce a number of new obligations, particularly in relation to geographical indications, patents, trade secrets, and measures governing how IP rights should be enforced.”(CIPR: 2002).

The development of international trade can be adversely affected if the standards adopted by countries to protectIntellectual Property Rights (IPRs) vary widely from country to country. Furthermore, the ineffective enforcement of such rights can encourage trade in counterfeit and pirated goods, which damages the legitimate commercials interests of manufacturers who hold or have acquired those rights.(Acharya:2002).

The provision of patent on TRIPS may increase the cost of medicines and it may cause for reducing the approach of poor people on medicine. The agreement also leads to complex the process of technology transfer and increase in the price of commodity. (SAWTEE: 2062).

The different periodic plan of Nepal failed to incorporate IP policy and strategies timely. It shows the government does not have specific policy guidelines or long term vision document on Intellectual Property. (Chalise Report: 2005). The 10^{th} plan document, however, mention, intellectual property right as a strategy for industrial and R & D development. The plan mentions; “Intellectual Property will be protected and its entrepreneurial use will be promoted”. The plan aim to enhance the institutional arrange of Department of Industry in order to ensure better IP administration (10^{th} Plan: 2002).The plan document also mentions that IP laws will be making compatible with international practices and will be enforced.

Bilateral and regional trade investments 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. (CIPR: 2002).

Establishing the infrastructure of an IPR regime, and mechanisms for the enforcement of IP rights, is costly both to governments, and private stakeholders. In developing countries, where human and financial resources are scare and legal systems not well developed, the opportunity costs of operating the system effectively are high. Those costs include the costs of scrutinizing the validity of claims to patent rights (both at the application stage and in the courts) and adjudicating upon actions for infringement. Considerable costs are generated by the inherent uncertainties of litigation. These costs too need to be weighted against the benefits arising from the IP system. (CIPR Report: 2002).

Intellectual Property Administration is not entirely new to Nepal. Nepal's first Patent, Designs and Trademark Act were promulgated as far back as 1967 and the first Copyright Act came in 1965. Although, Nepal has more than half a century long history of IP administration, there are only 57 patents and 47 industrial designs registered till 2061/2062. Patent, the most important industrial property seems lacking as compared to the other country especially India. Patent offices are expected to generate a large amount of revenue. India earned 72% revenue from Patent out of total revenue generated by industrial property (India annual report: 2000). The prevailing act does not cover all aspects of industrial property such as integrated circuits or layout design, utility model, different kinds of marks. Although the right to industrial property is stated in the act, the rights of owner conferred by the protection are inadequate. There is dissatisfaction among the IP holder on enforcement provision of the act (WIPO Seminar: 2005). Penalty for infringement of rights is very nominal and provisions for confiscation of infringement-related goods and compensation are not clearly defined.

The currently working act regards to industrial property does not compatible with the provisions of TRIPS and the Paris Convention for the protection of industrial property. To overcome these shortcomings, an integrated Industrial Act is under the process of legislation. Only enactment of new act is not sufficient to assure better Industrial Property Administration. Lack of awareness of the importance of intellectual

property rights for scientific, technological and industrial developments, Nepal is still back in taking benefits from the IP sector.

Taking all these situations into view, this study will focus on the following problems.

a) What are the problems in patent registrations and administrative procedures in Nepal?
b) How much the IP policies address the need to focus on industrial development of Nepal?
c) How far the IP protection supports in technology transfer?
d) What remedies could be taken for getting maximum benefits to patent holders?

All these vital and burning issues will be explored during the course of this research and it will provide valuable information to the researchers and planners for further policy and strategy formation.

1.3 Research Objectives

The general objective of this study is to identify and examine the intellectual property administration and problems associated therewith in Nepal. The specific objectives of this study are as follows:

a) To review the intellectual property policies with regard to whether they focus on industrial development of Nepal.
b) To analyze the impact of intellectual property protection in technology transfer.
c) To suggest viable remedies for getting maximum benefits to patent holders.

1.4 Research Methodology/ Design

The present study has applied descriptive methodology by collecting secondary data on Policies of the government of Nepal. Policies of some of the developing countries and internet materials regarding the patent protection were reviewed. Data were collected from Government of Nepal, Department of Industries, Federation of Nepalese Chambers of Commerce and Industries (FNCCI), South Asia Watch on Trade, Economics and Environment (SAWTEE) etc.

1.5 Importance and scope of the study

Since the growing importance of patent rights in national economy, the need of its protection is to be analyzed thoroughly.

Nepal has entered in multilateral trading regime where the role of patent protection is very crucial. It is still lagging behind in global trade as well as in national industrial development. Patent is the skeleton of economic, industrial and business related activities of a society or country. If there would be no patent, producers would have probably not produced goods. Since patent guarantees market to the producers, they produce goods. Patent also gives incentives. For example, if there would be no patent, new cars would not have been made. This is the incentive guaranteed by patent which makes people produce/invent new things like pharmaceuticals, new computers so on and so forth. Thus, patent is also a guarantee of return of investment on Research and Development (R & D) made for an investment. Moreover, if competition is considered to be a basis for the development of the society, patent is the pedestal of transforming society from one stage to another stage.

1.6 Limitation of the Study

Intellectual property regime is very wide. The main categories are: copyright, related right and industrial property. Due to the limitation of time and other resources, the proposed study only confine with the administrative aspect of industrial property right specially patent.

1.7 Organization of study

The chapter I of this study deals with the background of intellectual property in the global context as well as Nepalese context. It tries to show the problems associated with IP administration and its integration with development policy in Nepal. This chapter explains about the objectives of this study, its scope and importance. The limitations and organization, methodology, source of data, research design are also presented in first chapter. The chapter II presents the related literature, the literatures are organize in theoretical concept to written contribution of scholars involved in writing books and articles. The chapter III states that the research methodology of present studies. Chapter IV presents the major issues of intellectual property rights in Nepal, the presentation and analysis of secondary data (which were collected from different sources) and findings. And in the last chapter summary, conclusion and recommendations are presented. Annexes are also included for better understanding of the report.

CHAPTER -II

LITERATURE REVIEW

This chapter attempts to include, in short, the several studies conducted by different writers and researchers on WTO, TRIPs' and Patent Rights Protection in national and international contexts. Moreover, it tries to include the major findings and recommendations from the concerned available books, articles, journals and web sides.

2.1 International Context

In this connection, the published book entitled “International Patent System” (Rao, C Nirajan and Bishawajitdhar: 2002) attempts an empirical analysis of domestic and foreign patenting activity using macro economic variables.

The book indicates that the comprehensive analysis of patenting activity, as it has taken place across countries. There are two salient points of this study. The first study is that the study takes into consideration of a set of countries that is larger than has been done in the past. The countries included in the study cover the entire development spectrum. The second feature of this study is that the analysis uses time series data, spanning 24 years. This study had two main objectives. The first was to carry out a cross country comparison of patenting activity, spanning the period of 1975 to1998. The second was to relate the observed patterns in patenting to the economic characteristics of the selected countries.

Based on their analysis, the followings are major findings:

Firstly, one of the most contentious issues in the discussion on the international patent system in various forms has been whether countries at different stages of development benefit from the patent system in the same way. The developing countries argued that their stage of technological development, which is manifested of their overall development requires a ‘lesser’ level of patent protection than that afforded. In the developed countries, the writers have also pointed out to the fact that developed countries, in their stage of technological development, experimented with the patent system in various ways and it was only after they achieved technological development and they tend to have a strong patent system.

Secondly, according to their empirical study, 39 countries out of the 56 sample countries showed a positive growth rate in domestic patent application, while 17

countries showed a decline in their domestic patent applications in the period of 1975 to 1998. And 34 countries out of the 56 sample countries showed a positive growth rate in foreign patent applications, as many as 22 countries showed a decline in foreign patent applications during the same period.

Thirdly, in an inter-country comparative perspective, the differences in the quality of patents from one country to other might result from such factors as the capabilities of patent offices and the differences in the interpretation of patent ability criteria via novelty, non obviousness and industrial applicability by different patent offices.

Fourthly, the practices of the patent offices in interpreting the various provision of the patent law could differ one the reason for this may be the subjective element , which normally surrounds these provisions. Another reason could be the differences in explanation of patent offices. Many patent offices in developing countries may not have the human and material resources, which are required to implement patent law satisfactorily. The practices of patent offices might have an effect on the number of patent application.

Fifthly, the domestic patenting performance of LDCs seems to be very low, these countries which have some acute problems of poverty, malnutrition, education and health, may not have resources to spend on R&D.

Lastly, South American countries which had macro economic problems in 1980s have shown a remarkable decline in domestic and foreign patenting.

Based on the major findings, the authors have given the following recommendations:

) Patents as indicators of inventive activity, there are at least two sets of problem that need to be taken into account while using patents as indicators of intensive activity, the first is the fact that not all patentable inventions are patented. The second problem arises from the quality of patent data.

) Patent data may not be comparable among countries because of differences in patent laws of different countries. A country's patent law will certainly influence the patent output of that country. It could hence be argued that patent data across countries are not comparable. Further differences in patent law would be accentuated by differences in practices of the patent offices in interpreting these laws and ultimately the enforcement of these provisions concerning patent protection.

J LDCs can solve some acute problems of poverty, malnutrition, education and health when they spend on research and development.

In the book entitled "The Patent System, An Instrument of the Technological Policy of Developing Countries" (Witz, Silk Paul: 1993), has tried to show that the basic problem of economic reforms in countries like India and the people of republic of china lie in raising the domestic innovation capacity. Therefore, these countries have to gain knowledge from western countries as they have attained relatively higher standards of development especially in technological field.

Based on his analysis, the major findings include:

J Operative potential limitations and prospects of the Chinese patent system as an instrument of the technological policy;

J The result of the study so far the Chinese patent system has not performed well enough to encourage domestic inventions, innovation activities and to intensify foreign collaboration in the technological sector. The operative potential of the patent system remains insufficiently tapped .The reason primarily lies in the policy framework being incompatible with the goals of the patent system;

J A successful implementation of national system depends on an extensive material and financial investment in the beginning as well as on the availability of highly qualified human resources;

õ In the middle of the 19th century, the classical function of a patent protection was seen an incentive for domestic inventions and innovations. Today, it is seen more as an instrument of technological policy;

Based on the analysis, the author makes the following recommendations:

J The technologically advanced developing countries, the patent protection and other industrial property rights are today chiefly the instruments of securing the transfer of technology from the western industrialized countries;

J The framework recommended here strictly follows to repeat the integration of national economic interests of the patent granting in developing country, interests that are guided by technological and economic goals as well as specific economic interests of the applicant or patentee;

J National patent system in the technologically advanced developing countries is based on the prevailing theoretical approaches need for a patent system;

J The author has commented on possibilities of supporting efforts in developing countries to build up or reform their national patent systems within framework of German development co-operation;

The book entitled "Development, Trade and the WTO" (Hoekman , Bernard, Matto, Aditya and English Philip: 2002) states that patent gives legal rights over product or process inventions that entitle the owner or patentee to prevent others from an authorized manufacturer's use or sale of such inventions. Most developing countries were members of the Paris convention and were already largely in compliance its substantive obligation before trips.

On the basis of the analysis of the book, major findings include:

Firstly, the standard is used to ensure that trivial advancements to existing technologies are not kept out of public domain and are not covered by exclusive rights for as long as twenty years. This is technically the most criterions for patent examiner to evaluate. This standard is necessarily subjective and in many cases is eventually decided by the national courts.

Secondly, in the context of the patents this would apply to investments undertaken by domestic entities. Anticipating patent term has been extended to twenty years from the date of filling on account of TRIPs. It is suggested that a sharply increasing scale of patent renewal or maintenance fees is adopted by developing countries, so as to reduce the real term of most patent. Patents with low value would not be renewed, and however economists recognize the loss in the consumer surplus with patent grant in the greatest for valuable patent technologies, which have high sales where the entry of competitors is prevented by legal barriers enforced through patent renewal fees. Such patentees or their licenses would gladly pay these higher fees.

Thirdly, in the areas of divergence, while many developing countries have to change their laws, some developed countries have also had to change their laws during or soon after the TRIPs negotiations to include product patent or certain excluded fields reverse the burden of proof for process patents and increase the term of patent protection.

Another, TRIPs Agreement was pushed strongly by the global research based on pharmaceutical industry particularly that of the US with the full implementation of the TRIPs, this industry expected to get almost world wide patent protection for new pharmaceutical products that resulted from its R&D efforts, the cost of R&D allocated to each new drug, allegedly run into several hundreds million US dollar and it is said that only a few drugs fully recover these from sales revenues. The pharmaceutical industry demanded the end of the "free riding" by much of the developing world that did not have product patents.

Next, there were far more proposals from developing countries demanding amendments to TRIPs due to longer transitional period, weakening of the provisions on compulsory licenses, more technical and financial assistance for implementing TRIPs, including for the promotion of domestic R&D, transfer of technology and new provisions related to biodiversity including the protection of the traditional knowledge and bio resources.

In the TRIPs negotiations, developing countries wanted full recognition given inter alias to the need for technological development and a balance between these needs and the rights granted to IPR holders. To these countries, IPR were granted not only to acknowledge the contribution of the inventors and creators, but also assist in the diffusion and dissemination of technological knowledge

Lastly, much more works need to be done on the economic implication of TRIPs for developing countries especially on legislative choices that are permitted under TRIPs; presently, it is not clear that it is unambiguously in the interest of such countries to interpret trips at the highest levels of protection of IPRS in order to achieve higher level of domestic innovation to attract foreign investments or the latest technologies.

Based on the above major findings, the author makes the following recommendations:

- The most standard for judging patent eligibility is that of "non obviousness" or "incentive step", thus requires that the invention must not be evident to a person of ordinary skill in that particular field or sub field of technology;
- The option of using different interpretations on the criteria of patentability clearly exists for developing countries even while complying with TRIPs, it would be in the interests of developing countries to use this to ensure that overly broad patents are not granted;

) The protection and enforcement of IPRS should contribute to the promotion of technological innovation and enhance the international transfer of technology to the mutual advantage of producers and uses of technological knowledge;

In the article entitled “Benefiting from Intellectual Property Protection” (Alik, Shahid: 2002) taken from the book “Development, Trade and WTO” the author has tried to show the role of IP protection. Governments in developing nations justify the adoption of stronger IPRs by claming that such reform will result in more inward technology transfer, more local innovation and cultural development, and a faster route to closing the technology gap between themselves and rich countries. Enhanced IPRs by themselves, however, are unlikely to produce such effects. Expectations that stronger IPRs alone will bring about technical change and growth are likely to be frustrated. According to the available evidence, claims that IPRs generate greater international economic activity and domestic innovation are conditional. The positive impacts of IPRS are stronger in countries with appropriate complementary endowments and policies. The IPRs regimes become a positive tool for promoting beneficial technical change and development is multifaceted.

Based on his analysis, the major findings include:

) According to him, intellectual property rights can significantly encourage the acquisition and dissemination of the technical information;

)Economic theory indicates that technology transfer through international trade in goods, foreign direct investment and licensing of technologies and trademarks to unaffiliated firms, subsidiaries and join venture depend in part on local protection of IPRs;

) The strength of IPRs and the ability to enforce contracts have important effects on decisions by multinational firms on where to invest and whether to transfer advanced technologies through FDI;

)Invention in developing nations involves minor adoptions of existing technologies but the cumulative effect of these small inventions can be critical for growth in knowledge and activity;

) Intellectual property encourages the development of interregional and international distribution and marketing networks that are important for achieving firm level scale economies;

J The stronger intellectual property rights create market power, which is more easily abused in economies that are not open to foreign competition. Thus to strengthen IPRs, while maintain closed markets is to work at cross purposes;

Based on his above major findings, the author makes the following recommendations:

J The relationship among patents, investment in capital and in R& D and growth, there is no direct correlation between patent strength and growth, but there is a strong and positive impacts of patents on physical investment and on R & D spending, which is in turn raised growth performance, thus IPRs and FDI work jointly to raise productivity and growth;

J Advanced technologies require considerable investments in such factors as process control and product quality maintenance. These investments tend to have high social returns in developing economies because they are crucial for raising productivity toward global norms;

J Country should open market economy because open markets and IPRs are complementary. Openness improves a country's excess to available international technologies, intermediate inputs and producer services, all items that can raise domestic productivity;

In the book entitled "Socio Economic Benefits of Intellectual Property Protection in Developing Countries" (Alikhid, Shahid: 2002), has made conclusion that a modern intellectual property protection system is an essential component of the enabling environment for technology based economic development.

Based on the analysis, the major findings include:

Firstly, intellectual property signifies advancing knowledge in the form of new ideas, techniques, designs, process and product having economic and commercial potential.

Another, the study states that targeted awareness and building campaigns, emphasizing the role of intellectual property in technological and economic development should be accorded the necessary priority, as lack of credible information about the importance of intellectual property often leads to a negative mindset among importance sectors of public opinion.

Lastly, industry and business should be encouraged to use the intellectual property system in furthering their techno-economies capability through introduction of the latest and newest technologies.

The published book "Intellectual Property: A Powerful Tool for Economic Growth" (Idris, Kamil: 2003), has provided an overview of the functions, value and impact that a patent system has in the age of rapid technological innovation. The patent system needs to be constantly adjusted and implemented so that the best balance between the right holders, new entrants to the market; the public at large and civil society is achieved. The potential of the patent system has been widely recognized in the context of knowledge creation and dynamic innovation.

This book has described how patent information and its diffusion stimulate economic development. It has also explored how new technologies have had an enormous impact on the patent system and why some countries swiftly and strategically responded to the challenges from those new technologies by successfully adjusting their patent policies and systems. Two significant fields of new technology, computer and communication technology and bio-technology have been examined in detail to show that patent policy discussion will continue to be crucial to the success of the knowledge and technology driven economy in the twenty first century. Excessively strong patent protection for new technologies may adversely affect economies.

Based on his analysis, the major findings include:

- Intellectual property protection is often seen as an instrument of industrial policy that has wide ranging ramifications on the economy;
- The author has pointed, in the context of developing countries, that two factors define the environment for acquiring technological capability. One the one hand, developing countries realize that to join the global trend towards greater free trade and to encourage foreign investment adequate IP protection essential. On the other hand, the amount of technological knowledge that is in the public domain is much greater than just two decades before in every country. There are bright people who have the ability to innovate and it is hoped that the capacities of such people are invested positively for national economic development.

- The IP system should prevent the "exportation" of knowledge creating national capacities to other countries which can better exploit them;
- Higher levels of IP protection for a firm's technologies and business method could conceivably encourage the firm to invest in the training of its workers in order to enhance productivity and competitiveness.

Based on his major findings, the author makes the following recommendations:

- In the developing countries to establish higher levels of IP protection should be the preferred approach in the field of biotechnology so that grater market value can be considered locally as biological resources are developed rather than promoting what is essentially the continuing export of raw materials through materials transfer agreements;
- In the area of venture capital development unless there is perceived adequate IP protection, individual inventers and small companies tend not to disclose their innovations during venture partnership negotiations for fear of losing ownership or control. In the agriculture sector, governments are traditionally reluctant to investment in research, funding from the private sector is often sought. In many cases the private sector is unwilling to invest in research because it is not able to protect research output.

2.2 Nepalese Context

In his unpublished master's thesis entitled "Integrating Intellectual Property Rights and Development Policy" (Mr. Liladhar Adhikari: 2062), basically focuses on these questions: what are the policies followed by the government to protect the IP rights? What is the existing status of intellectual property rights on different aspects of intellectual property administration? Which development sector can be more facilitated through the strong IP protection of intellectual property rights in order to reduce poverty? What are the problems in integrating intellectual property rights and development policy in Nepal? This study has carried out on a descriptive way. He has used secondary data obtained from DOI, and respective government organizations were analyzed during his study.

Based on his analysis, the major findings include:

- Intellectual property rights related law came into enforcement in Nepal in 1937 with promulgation of patent, Designs and Trademarks Act. Provisions for the protection of industrial property of the nationals were included in this first act Patent, Design and

Trademark Act, 1965 replaced the first act and is still in force. Present Act also provides intellectual property rights in respect of industrial property of foreign origin as well. This act, having undergone an amendment in 1987, regulates present industrial property system in Nepal.

- The author has studied the other main provisions made in the Industrial Property Act, 1965 as:
  - Registered Patent and Trademark shall be valid for a period for seven years;
  - Registered Designs shall be valid for the five years from the date of registration;
  - The Patent and Design, Registration can be renewed only for another two terms;
  - There are provisions for penalty and compensation against violation of rights and infringement;
- There is very low rate of cases filled against infringement and violation of IPR. His data indicates a very low number of cases being finalized in the department of industries. The department is short of manpower with sufficient knowledge and expertise in IP field to handle these matters. Also, there are no standard manuals and defined working process to handle these very sensitive cases;
- The awareness of intellectual property rights among the intellectual circle is increased after the emergence of WTO. Nepal lags behind in the economic and technological development and accordingly the demand for intellectual property service on concerned IP service providing offices is quite low as expected;
- World Intellectual Property Organization (WIPO) is contributing significantly for the development of intellectual property system of Nepal. It has sent different expert mission to Nepal for strengthening and modernization of intellectual property system and has provided opportunity to Nepalese policy makers, officials, and business leaders to participate in the IP related international forums;
- Quality of the service provided by concerned authority is most important aspect for its growth and development. Efficiency, effectiveness and affordability are the major requisites of the IP services. According to the author, the quality of examination and

search is quite low. For the search and examination of the design application, there is no data base or system as per international practice. Provision in the act in this regard is also vague. It seems that there is no proper system of novelty, search and a technician of technology section of the DOI carries out “industrial applicability” and “inventive step” examination of a patent application. These technical staffs do not posses proper knowledge and skill about patent examination.

- There is an extreme lack of awareness on intellectual property rights and their importance for the overall development of the society. Officials of the government and its concerned sectors do not have adequate skills required for the administration enforcements, teaching, using and handling of IP tools.

Based on his major findings, the followings are major suggestions:

- Single and well equipped IP offices should be established under the ministry of commerce and supplies;
- Nepal should not be delayed to be a partly of patent co operation treaty (PCT). Since the patent role is the viable in economic development;
- IP education should be included in curriculum of management, economics and law faculty, since they have commercial value;
- WTO memberships open the sky for international markets access the opportunities should be grasped through strong IP administration;
- Human resource development plan should be formulated, since there are very few persons engaged in policy making. The policy making, its implementation and evaluation tasks should be allocated to different people, since we are much more suffer from these situations. The programmers initiated by WTO and WIPO could get success in mobilizing very few official. These officials do not have adequate time to look after all programmers. Thus, these multilateral trading organizations should give focus on mobilization more parties, which are directly or indirectly, involve with IP;
- There is chance of taking benefits from registering our heritage, plant verity and other indigenous property as patent. This needs creative homework and rigorous efforts. We should not be delayed in the process.

The published book “WTO South Asia and Nepal” (Dr. Shyam K. Shrestha and Niranjan Baral : 2002), have studied about the WTO provisions and the basic principle of

multilateral treading system to overview the liberalization process and preparation of Nepal for obtaining WTO, to evaluate the possible impact of WTO provision on major sectors of Nepalese economy. The authors adopted both field and desk research. They had pointed the role of IP protection. No member country can copy the intellectual property of other member countries without their legal permission. In order to protect the intellectual property rights of the creator, two main conventions have been passed: the Paris Convention and Bovin Convention. WTO members are required to provide procedures and remedies under their domestic law to ensure that intellectual property rights can be effectively enforced by foreign rights holders.

Major findings of this book are:

- At present, 29 countries, among 144 WTO member countries, are least developed. The export performance of least developed countries in the world trade is very insignificant. Their main exports items are primary commodities;
- Least developed countries are dependent on a very few export products, usually first 2 or 3 items. The dependence of LDCs total export of a narrow range of largely unprocessed products and row materials, whose price and income elasticity of demand in low, whose growth has been far more sluggish than the world trade overall, is one of the main factors hindering their export performance;
- Developed countries are the main export markets for least developed countries and the advanced countries enjoy the benefits of value added prices. Recognizing the valuable contribution of LDCs, WTO has negotiated a member of provisions to ensure that the LDCs secure a share in the growth of international trade commensurate with the needs of their economic development;
- Some of the important provisions contained in the Uruguay round include the provision of longer transition period. The full implementation of some obligations and various exemptions from obligations better or preferential treatment to their products, most favorable treatment for this group in terms of rights as well as lower level of obligations. In addition , the decision on measures in favor of LDCs has made some provisions like special assistance including technical assistance in development, strengthening and diversification of their production and expert bases including those of services as well as in trade promotion to enable them to maximize the benefits from liberalization policy;

J The first WTO, ministerial conference held in Singapore has mentioned the enhancing conditions for investment and providing predictable and favorable market access conditions for LDCs product to foster the expansion and diversification of their products to the markets of all developed countries.

J Though several provisions were made to developing countries, especially least developed countries like Nepal, they are attractive on theoretical perspective only. In fact, such provision may cause long-term impact on overall economy of least developed countries. For a least developed country like Nepal, where the production sector is very weak, liberalization of trade and free competition may cause uncontrolled imports of advanced products. This may kill the competitive power of domestic products and home industries, and may create a serious balance of trade and payments problems;

J Since most of the trade activities are controlled and regulated by WTO secretariat, the whole economy of the country may be dominated by WTO. After the enforcement of WTO regime, all member countries have to adopt the principles of MFN and NT; as a result the preferential facilities, including protective quota, enjoyed by Nepal in advanced countries will be replaced. Similarly, under the agreement on TRIPs the technically advanced countries may commercially exploit the traditional properties of the least developed countries like Nepal. Examples of such situation include the patent rights received by the foreign companies on south Asian region's traditional products like Neem- tree, Basmati- rice, and Jamun tropical fruit etc.

The author mentions, in the book, the following pre-requisites for WTO membership:

- There should be autonomous control over economic policies;
- The country should have attained observer status in the past;
- The country has to prepare and submit the accession application in the format specified by WTO secretariat;
- Economic policies should be compatible with WTO requirements;
- Revision of the existing domestic economic policies in occurrence with WTO requirements has to be done;
- Commitments have to be done to abide by WTO provision;

In his article "Patents Rights Nepalese the Context" (Rudra Sharma: 2003) has written the role and importance of patent right on the Nepalese economy. He writes

patents could give an economic facelift to the whole nation. This can generate employment, this brings more revenue to the government, widens portfolio of both the service as well as production industry promotes national identity and so on and so forth. Patent is a monopoly right, government may permit to a certain party to produce goods in case of grave needs. Patent is a monopoly right over an invention provided by law, inventing goods with added quality demands a huge amount of research and development before the goods come in the market. The inventor would be adversely affected if his/her products are easily copied by the other producers who have not invested in the research and development of the invention. Therefore, a kind of monopoly is provided to the inventor over his/her investment. This monopoly right provided to the inventor through the protection of law enforced by the state is known as patent right.

Patents are granted by a government authority conferring an exclusive right to make use or sale an invention generally for the period of twenty years. Twenty years is general practice that most of the nations provide patent for such a period of time. In Nepal also there is legal provision for similar period of time. In Nepal, the patent for the first time is provided for seven years upon filing a patent application which is eligible for renewal for another two more terms.

) Importance and scope of patent rights:

The free trade theorists of 19th century Europe fought against patent, the main form of intellectual property right in industry. But, today we have a situation in which the free traders are asking for the strongest monopolies. The reasons are clear, both free trade as well as the intellectual property rights is needed for multinational corporations. The developments over the years have proved that it is now futile to fight against patent but protest one's best interest under patent regime.

The writer has mentioned the following advantages of PCT in connection with national, economic and industrial development:

- More applicants are encouraged to seek patent protection in more contracting states;
- More and more applicants seek patent protection abroad only in respect of PCT contracting states;

- More and more opportunities arise from technology transfer from foreign countries based on patent protection granted;
- Foreign investment, which is often technology related, is stimulated;
- Establishment or development of local industries is promoted as a result of more advanced technologies and more investment;
- More and more local jobs are created with development of local industries;
- Technical skills of local work- force are enhanced with development of local industries and technology transfer;
- Local inventive activities are further stimulated as the level of economic and technical development rises;
- Nationals will use the PCT system to seek patent protection abroad for their inventions, thus aiding in the penetration of export markets by local industry;
- With technological development and foreign trade expansion, the country will be in an even better position to further attract foreign and advanced technologies, and help its economic and technological level to continue to rise;

The writer, in this connection, suggests about patent right as it is a key factor of economic development. Many people including university graduates and trainees in vocational schools are in Nepal, still unknown about patent since the government has not yet prescribed any formal syllabus in all educational levels. So, Rudra sharma recommends that the government should include the education of patent right in the syllabus of all educational levels.

The report commissioned by Aus. AID from Clayton Utz. submitted its report in the course of "the kingdom of Nepal's accession to the WTO" to HMG Nepal September 2003, suggested the following to compliance with the agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs).

J It is the intellectual property owners themselves who must play the most important role in enforcing (and commercializing) their rights. IP owner have the opportunity to prevent certain infringements and to take actions which enable them to enforce their rights more effectively in the event of an infringement. For example, in relation to trade marks alone, there are many so called "rules" or statement of best practice in terms of:

- Developing a comprehensive brand registration strategy;
- Implementing rules in relation to the proper use of the trademark, particularly where trade marks form part of a portfolio;
- Policing the use of trademarks by licenses and
- Ensuring that quality control standards are satisfied by licenses

The report narrates the scope of the TRIPS agreement as below:

Although, as noted above, the TRIPs Agreement does not support to be a complete statement of intellectual property law, TRIPs has been described as: "probably the most significant development in international intellectual property law of the 20th century." The basis of this strong statement is the fact that TRIPs addresses a range of issues that were clearly not being dealt with adequately under Bern or Paris, including:

- Determining minimum standards for the scope and extent of intellectual rights, and confirming that it was optional for WTO members to provide higher levels of protection;
- Prescribing elements of an effective mechanism for the administration and enforcement of IP rights, for example, requiring members to establish a system for seizure at the border of counterfeit and pirated goods and to provide other remedies for remedies for infringement of IP rights;
- Creating a transparency mechanism that requires each WTO member to provide details of their national IP laws and system, and to answer questions about their IP systems if required;
- Allowing for mechanisms that ensure that national intellectual property systems support widely accepted public policy objectives, such as repressing unfair competition, facilitating transfer of technology, and promoting public health and environmental protection;
- Incorporating disputes relating to intellectual property protection within the general WTO mechanism for the settlement of trade disputes (as between member states);
- including mandatory provisions for the benefit of developing countries , on subjects such as technical assistance, technology transfer and grace periods for implementation; and

⁾ Allowing for various mechanisms to deal with misuse of intellectual property rights and the enforcement process.

Importantly, TRIPs also acknowledge that intellectual property protection is not an end in itself but is part of border public policy objectives, including:

⁾ Establishing a balanced intellectual property regime, that is, a balance between the rights of intellectual property owners, the rights of consumers, and ensuring that intellectual property right owners do not abuse their rights and

⁾ Promoting technological innovation and the transfer of technology to the mutual advantage of producers and users of technological knowledge in a manner conducive to social and economic welfare.

"National Study on Intellectual Property for Small and Medium-Sized Enterprises" (Report prepared by Mr.Bhola N. Chalise: 2005) Nepal has given the following suggestions:

1. It will be better to establish a separate office.
2. Industrial property administering institutional should have following functional wings to cope with new challenges and for providing better IP service.

⁾ Trademark administration: for receiving applications, examination, registration, renewal and cancellation of various types of marks;

⁾ Design and Patent administration: for receiving applications, search and examination of application, renewal and other administrative work relating to design and patent;

⁾ Development and litigation: for receiving complaints and cases of infringement and violation of IP rights, investigation, and litigation of such cases, coordination and cooperation with other enforce agencies as court, district administration, police and custom offices;

⁾ Development and promotion: for operating IP information center and library, publishing and distribution of informative materials on IP, conducting awareness campaigns, training, seminars, workshops and other promotional events and activities with the cooperation other private and donor organizations, extend relations and cooperation other national and international organizations for the development of IP system, conducting other specially targeted programs like enhancing capability of SMEs for the use of IP tools.

3. The proposed industrial property administration must be equipped with the following:

- New industrial property act covering all administrative and enforcement requirements and conformity with international treaties and practice;

- Necessary regulations for administration and litigation and separate manuals for search and examination of trademarks and patent;

- Adequate number of trained manpower especially in the field of patent examination, trademark examination and enforcement measures;

- Sufficient authority and necessary autonomy for the administration, enforcement and development of IP system, providing training and manpower development to improve relations with an extent cooperation to the private and international organizations and to provide facilities and incentives to small enterprises and inventers;

- Special arrangements should be made for revenue collection from IP services. IP office should have the authority to determine fees for the services and to use part of this revenue for the development of IP.

CHAPTER –III

RESEARCH METHODOLOGY

The knowledge of human being is rising through the getting answer of different questions like why, how, when, where, what etc. To answer these questions, they should gather information and analyze them to achieve their goals or satisfaction. "The research for gaining the knowledge about method of goal achievement, which we desire, is known as research methodology" (Joshi; 2001:12-13). Research is to find out to gain knowledge about a phenomenon. Here re means repeatedly or again and again, and 'search' says to investigate or to find. Thus, Combine researching repeatedly is called research, which includes searching new facts, knowledge, principles and theories in scientific way likewise; research needs various methodologies, tools, techniques etc. A systematic research studies needs to follow a proper methodology to achieve the pre mentioned objectives. "Research Methodology is a sequential procedure and methods to be adopted in systematic study". The proper analysis of the study can be meaningful only on the right choice of research tools that help for meaningful conclusion. This chapter is mainly associated with research design, sample design, period of study, sources of data & data collection procedures, data processing & terms, methods, tools techniques, theories employed in the analysis & interpretation.

3.1. Research Design

"Research design is the plan, structure and strategy of investigation conceived so as to obtain answer to research questions and to control variance" (Howard K.Wolfff and Prem; 1999:50). The main objective of the study is to analyze the Patent Right Protection in the Nepalese context and provide suggestions on the basis of findings. In order to fulfill objectives of the study as much as possible, an adequate attention has been paid in the process of research design. The research is carried out on the basis of secondary sources data. In the study, the researcher has followed the descriptive research design to analyze the Intellectual Property Protection right holders. On the ground of observed infirmities and inefficiencies, an attempt will be made to suggest the reasonable and useful recommendations to the concerned.

3.2. Sources of Data

This study is mainly based on the secondary data collected from the different published sources.

The essential data and information were collected from some published and unpublished documents, like Federation of Nepalese Chambers of Commerce and Industries (FNCCI), South Asia Watch on Trade, Economics and Environment (SAWTEE), Department of Industries (DOI),Internet materials etc. So far as the data collection procedure is concerned, annual reports of elected organizations were collected. In addition, answers on certain queries made to the staffs of concerned organization also assists in data collection procedure. The researcher has also consulted the library to gather necessary data and information during the course of study.

3.3. Data Processing and Tabulation

The necessary data from 2060/061 to 2063/064 for the study collected from various sources are recorded systematically for analysis. All the information is then identified, grouped and tabulated as per the need of study in order to meet the research objectives. Tabulated data are presented through the easy understanding charts.

CHAPTER -IV

A.MAJOR ISSUES FACING INTELLECTUAL PROPERTY RIGHTS IN NEPAL

The protagonists of strong IPR regime have gained considerable success in convincing the policy makers of the third world to buy the idea that this would lead to higher FDI inflow. However, a number of studies carried out by such credible organizations like UNCTAD reveal that IPR protection is not the key determinant of FDI inflow. China has been receiving the highest percentage of the FDI among the developing countries despite having a weak IPR regime.

Given the fact that TRIPs Agreement shall force all the countries to have a minimum level of IPR protection and that the IPR regime in all the WTO member countries are going to be harmonized or even homogenized by December 31, 2005 (i.e., deadline for all the member countries of WTO to comply with TRIPs requirement), this will become even the least significant determinant of FDI inflow.

The impact of increased protection is likely to be on the transfer of technology. On the one hand, it may facilitate access to technologies that the title-holders may be reluctant to transfer in the absence of intellectual property protection. On the other hand, with stronger protection, the risk of imitation will be lower and, to the extent that title-holders can exploit their technology alone, they may be less inclined to part with it. As a result, it could become more difficult to obtain protected technology and, if it is obtained, royalties and other charged are likely to be very high.

There is evidence to suggest that since the 1970s, policies and measures affecting access to technological and scientific knowledge held in industrialized countries have become more restrictive, reducing the flow of technology to developing countries. This trend could be reinforced by the higher levels of protection established by the TRIPs Agreement. There is nothing hard and fast in technology transfer literature to support the liberal economic case for Third World adoption or enhancement of IPR regimes in order to promote North-to-South flows of technology. What is clear is that the international market for technology - if such thing exits – is imperfect, and current conditions are heavily skewed against developing countries wishing to gain access to new technologies.

It is clear from a number of studies that TRIPs Agreement will have deleterious impact on the biological diversity of the South as it perpetuates a process known as "bio-piracy" due to patenting of "life forms". As per TRIPS all the genetically modified versions of plants, animals and species will become patentable. Properties of some of the indigenous species of South Asia have already been patented by TNCs in the USA, Europe and Japan.

Nepal is considered one of the richest countries in terms of possession of biological diversity. It occupies only 0.1% of global area, but in terms of biodiversity, it is ranked 20th in the world. Developed countries not adequately endowed with diversity of genetic resources are attempting to legalize the transfer process of such genetic resources from countries like Nepal to the North through TRIPs Agreement.

Loss of bio-diversity will not only result in loss of life support systems of the indigenous people, but also in loss to the farming community and erosion of food security. Agro-biodiversity is a precondition for maintaining food security through traditional farming means. Commercial agriculture promotes a practice known as monoculture. Since TRIPs Agreement coupled with Union for Protection of New Varieties of Plants (UPOV) promotes monoculture, one crop epidemic could entirely wipe out the global food supply.

It has also been proven that strong patent regime mandated by TRIPs Agreement will result in increased prices for the patented drugs in countries like Nepal that have no capacity to invent their own version of drugs. This will push a vast majority of marginalized population without adequate access to health care facilities to further deprivation. The average period for the transfer of technology from developed countries to developing ones is 10 to 15 years. Thus Nepalese consumers can get the so-called "new" medicines only when their patents have expired. Pharmaceutical units without the capacity to invent will have to get contented with production of generic version of drugs, which are not necessarily "new" and "effective.

Nepal is facing many issues of intellectual property because Nepal is rich for natural property and historical culture. Intellectual property can play vital role to promote

agricultural sector, industrial sector and farming sector. Specially, Industrial property protection helps to promote human capacity through many technological innovations.

4.1 The Analysis of IP Protection in Technology Transfer

Among the various WTO Agreements that deal with the issue of technology transfer, the agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) is the major one, which contains explicit provisions relating to international technology transfer. Article 7 of the TRIPS Agreement, which lays down the very objectives of the arrangement, notes that IPRs should contribute to the promotion of technological innovation and the transfer and dissemination of technology, similarly article 8.2 recognizes that countries may wish to adopt policies to prevent the abuse of IPRs by right holders on the use of policies that "adversely affect the international transfer of technology." there are certain reason to why TRIPs one of the landmark and controversial agreement of WTO-is more concerned with transfer of technology. The foremost reason is that Foreign Direct Investment (FDI), Intellectual Property Rights and Technology Transfer are interlinked. Hence, there is conjugal determinacy of TRIPS, with those factors the other important ground is that the transitional corporations (TNCs) for the past many years now have been demonstrating their hegemony in the field of FDI and IPRs, which cover over 90 percent of the worlds Patents. The role of the MNCs therefore cannot be forgotten. With world economy becoming more and more knowledge intensive, the intellectual property rights protection is likely to assume ever increasing importance and may be the determinacy factor for attracting foreign private investment in third world countries. However, there is no definite evidence suggesting that intellectual property right protection is a single most important of FDI. The issue of technology transfer is possibly one of the most important areas of interest to the LDCs have particular interest is in the provision of article 66.2 of the agreement, which requires the developed countries to facilitate transfer technology to the LDCs. Despite provisions in the agreement to foster transfer and dissemination of technology, the developing countries, especially the LDcs, are facing difficulties in gaining access to now technologies, primarily the high prices.

There are three channels through which technology is transferred across boarders international trade in goods, foreign direct investment (FDI), and licensing of technologies and trademarks to unaffiliated firms, subsidiaries, and joint ventures. Economic theory indicates that transfer through each channel depend in part on local protection of IPRs, in complex and subtle ways (Maskus,1998). That imports serve to transfers technology widely accepted by economists. Imports of capital goods and technical inputs directly reduce production costs and raise productivity in the firms that employ them. Evidence shows that international trade in high technology goods depends positively on the strength of patent regimes in developing countries (Maskus 2000a). Moreover, one study (Coe, Helpman, and Hoffmaister 1997) found that increases in the share in GDP of imports of machinery and equipment from OECD countries tend to raise total factor productivity in developing countries. In this context, stronger patent in industrializing countries could raise long run productivity growth significantly. FDI often embodies efficiency advantages through superior technologies, management skills, and marketing. The subsequent diffusion of this knowledge into the broader economy is a complex process. Intellectual property rights could enhance that diffusion by ensuring greater contract certainty between enterprises and suppliers and by providing more protection for commercializing technologies in local markets. Furthermore, enterprises would experience stronger incentives to train managerial and technical workers because workers would feel more constrained against misappropriating trade sectors. IPR could play a positive role is suggested by Park and Ginarate (1997) who focus on the relationship among the Patents, investment in capital and in research and development, and growth. They found no direct correlation between Patent strength and growth, but there was a strong and positive impact of Patents on physical investment and on R & D spending, which in turn raised growth performance. Thus, it seems clear that IPRs and FDI work jointly to raise productivity and growth.

The promotion of stronger intellectual property rights (IPR) protection that has occurred over the past two decades has had its critics. Some economists maintain that this trend is economically harmful to developing countries, which must transfer rents to multinational patent holders in the more advanced countries, especially the United States. Advocates maintain instead that strengthening IPR protection promotes more

innovation globally, thereby generating economic growth. Even if the bulk of this innovation occurs in the advanced countries, these proponents maintain, stronger IPR protection will accelerate the transfer of technology among nations, resulting in mutual benefits.

The Stronger Intellectual Property Right Increases International Technology Transfer, the Empirical Evidence from U.S. Firm-Level Data (NBER Working Paper No. 11516), co-authors Lee Branstetter, Raymond Fisman, and C. Fritz Foley use affiliate-level data on U.S. multinational firms and aggregate patent data to test whether legal reforms, especially those in line with the minimum global standard for IPR as established in the mid-1990s by the World Trade Organization, increase the transfer of technology to multinational affiliates in reforming countries. One of the presumed benefits of increased protection of intellectual property right (IPR) is that it encourages foreign firms to produce and market technologically advanced products. When a firm transfers advanced technology to an affiliate, it usually has to instruct local engineers and other local skilled workers in key elements of the technology. Some of these elements may have been withheld from the firm's patents in order to prevent infringement. In a weak IPR environment, multinationals would have little recourse if these local workers took that valuable knowledge to a local rival, combining the patented and unpatented technologies to compete with their former employer. But when working in a strong IPR environment with good patent protection, a firm can deploy strategically sensitive technology outside its home country with a reasonable sense of security because it has the legal means to prosecute patent infringement.

The NBER researchers find that where patent protection has been strengthened, royalty payments increase for the use or sale of intangible assets made by affiliates to parent corporations, which reflect the value of technology transfer. This increase is concentrated among the affiliates of firms that make extensive use of U.S. patents prior to reform. Investment in research and development by affiliates, which is usually viewed as a complement to technology of imports from the parent, also increases after IPR reform as do both the level and growth rate of non-resident patenting. These increases collectively suggest that at least one component of growth in licensing flows

is associated with the introduction of new technology following patent reforms. The researchers find no corresponding reaction in resident patent filings. Taken together, the results provide evidence that strengthening IPR protection results in real increases in technology transfer within multinational corporations.

Branstetter, Fisman, and Foley assert that their study draws on richer data than other researchers have used: firm and affiliate-level data for multinationals operating in multiple countries allowed them to deal more effectively with matters of causality and identification. As a result, they were able to offer the strongest evidence to date for the notion that stronger IPR protection encourages at least one kind of international technology transfer.

The researchers' data were drawn from annual and quarterly surveys conducted between 1982 and 1999 by the U.S. Commerce Department's Bureau of Economic Analysis. Branstetter, Fisman and Foley also track and analyze data amassed by the U.S. Patent and Trademark Office, by the World Intellectual Property Rights Organization, and by other sources. Ultimately they studied 16 countries with sufficient data to allow estimates of the impact of strengthened IPR protection. Such reform included the expansion in the range of goods eligible for patent protection, expansion of the effective scope and length of patent protection, and improved administration and enforcement of the patent system.

Branstetter, Fisman, and Foley acknowledge that their analysis does not consider the impact of reforms on locally owned firms that may be displaced after reforms nor does it examine the effects of reforms on the pace of innovation in non-reforming countries. However, they add, given the limited evidence that IPR reform spurs domestic innovation, increases in technology transfer are likely to be a necessary condition for IPR reform to increase welfare in reforming countries.

4.1.1 The Benefits of Technology Transfer

The assumption of almost all the proponents of technology transfer is a pre-requisite, even an imperative, for desirable economic and social development. One commentator

attributed 87.5 percent of the growth of the per-capita income in the United States in the first half of the 20th century to technological progress and the reminder to the use of capita. Conversely, the deprivation and poverty suffered by developing countries has been attributed almost entirely to their technological dependence. Arguably, therefore, it is imperative that Nepal should access the technology transfer opportunities presented by joining the WTO and implementing an intellectual property regime in accordance with the TRIPS Agreement. Such a conclusion is supported by the report conducted by UNCTAD which noted that although 75 percent of the world's population is to be found in developing countries, these countries contribute only 20 percent of world's income, only 17 percent of worlds industrial output and endure a literacy rate of less than 40 percent. It is fair to say that the assumption in UNCTAD's report is that the technological transformation of developing countries will effect an improvement in these statistics. This reasoning is further reflected in the preamble to the WIPO model law for developing countries on inventions. The preamble provides for the adoption of the model law by developing countries, considering: " the importance of new technology for the economic development and in particular the industrialization of the country; the necessity of creating new technology in the country and of adapting existing technology to the needs of the country; and the necessity of having access to foreign technology."

Good governance and sound education policies are also critical to take benefit from IP. It is of utmost importance to establish that the TRIPS objective concerning "the promotion of technological innovation and the transfer and dissemination of technology" represents a commitment taken by the governments of member countries, both of developed countries (DCs) and Dng Cs, as well as LDCs. DCs are however expected to assist DngCs and LDCs in the implementation of TRIPS by means of appropriate cooperation.

Similarly, WIPO's licensing guide for developing countries commences with the assertion that: "Industrialization is a major objective of developing countries as a means to the attainment of higher levels of well being of the people of such countries. The advancement of science and the development of a technological base are essential conditions of industrial growth. The development of a technological base in a

developing country depends on the existence of indigenous technical capacities and the acquisition of selected technology from abroad …."

Finally, it may be noted that these statements reflect also the philosophy underpinning the declaration on the establishment of the new international economic order adopted by the general assembly of the United Nations in December 1974. The demand for the establishment of a New International Economic Order ("NIECO") represents the expression by developing countries of their intention to break away from their cultural and technological dependence on the Western Industrialized Countries. The NIEO comprises a number of ingredients and the transfer of technology performs an essential role in the NIEO. The theory proceeds on the assumption that the transfer of technology facilitates the more productive use of resources and provides a technological base from which the development of indigenous technology can proceed.

4.2 Patent Right Protection on Business sector

Intellectual property law is one of the faster growing branches of law in the world today. The phenomenal technological developments in transport and communications have resulted in the globalization of trade and commerce. This has its impact on patent, which is assuming international character. The world has developed far more in the past fifty years than in any other period of history due to technological progress. Patents give temporary protection to technological innovations. It is monopoly right granted to a person who has invented a new and useful article or a new process of making article. The objective of granting patents is to encourage and develop new technology and industry. After the expiry of the duration of patent, anybody can make use of the invention. The protection given by a patent is generally territorial. It is limited to the country in which it was granted. However, it is possible to obtain patent protection in more than one country through a single application. The Paris Convention ensures that nationals of one member state will have the same level of patent protection in any other member state, which the later grants to its own nationals.

The TRIPS Agreement, indeed, settles a new consensus on the measures, which must exist in the legal systems of WTO countries in order to give effective meaning to substantive rights. TRIPS Agreement is set to standardize substantive patent law and

procedures. Article 27.1 of the TRIPS Agreement provides that member countries make patent accessible for any inventions, whether products or processes, in all fields of technology without prejudice, subject to the normal tests of novelty, inventiveness industrial applicability. However, it excludes members from patentability for diagnostic therapeutic and surgical methods for treatment of humans or animals or plant life or health or avoiding serious prejudice to the environment, provided such exclusion is not made merely because the exploitation is prohibited by their law. Article 30 of TRIPS states that members may provide limited exceptions do not unreasonably conflict with normal exploitation of the patent and do not unreasonably prejudice the legal interests of the patent owner, taking account of legitimate interests of third parties.

There is more evidence about the impact of patent protection in developed countries. It appears to indicate that large firms consider patent protection of considerable importance in particular sectors (for example pharmaceuticals) but that in many sectors they are not considered important determinants of innovation. Moreover, patents seem to be hardly used by small and medium enterprises in most sectors in many developed countries, as a means of promoting their innovation, or as a source of useful technical information. An important exception is the biopharmaceutical sector where companies often view their patent portfolios as their most important business asset. A recent largely study in the UK concluded that “formal IP regimes are applicable only to a small proportion of business activity, such as large manufacturing companies.” Other informal methods of protection, and of obtaining technical information, were generally more effective for SMEs.

The crucial question from our point of view is to what extent IPRs promote growth. The evidence we have reviewed does not suggest strong direct effects on economic growth in developing countries. One recent study found that the more open (to trade) an economy, the more likely it was that patent rights would affect growth. According to this calculation in an open economy, stronger patent rights might increase growth rates by 0.66 percent per annum. But there is some debate about causation because both openness to trade and the strength of patent regime tend to increase in any case with per- capita income.

Other evidence suggests that the strength of patent protection increase with economic development, but that this does not occur until quite high levels of per-capita income. Indeed, prior to the recent global strengthen of IP laws; there was a reasonably consistent observed relationship between the strength of patent rights and per-capita income. At low levels of income, protection is quite high (reflecting past colonial influences) but falls to a low point of weak protection at an income of about $ 2000 (at 1985 prices) per capita. This low point is maintained until a per-capita income of nearly $8000 when the strength of protection begins to increase again. This association is necessarily casual but it does indicate that until relatively high levels of per capita income, IP protection is not high priority in developing country policy. May be the simplest evidence of the impact of the IP system is how much it is used, particularly by nationals. The propensity to take patents will reflect some judgment as to the benefits, albeit private rather than social benefits. In Sub-Saharan Africa in 1998 (excluding South Africa), 35 patents were granted to residents compared to 741 for nonresidents. By contrast in Korea, 35900 patents were issued to residents, compared to 16990 to non residents. In the US, the corresponding figures were 80292 and 67228.

The main conclusion seems to be that for those developing countries that have acquired significant technological and innovative capabilities, there has generally been an association with “weak” rather than “strong” forms of IP protection in the formative period of their economic development. We conclude therefore that most low income countries, with weak scientific and technological infrastructure. IP protection at the levels mandated by TRIPS is not a significant determinant of growth. On the contrary, rapid growth is more often associated with weaker IP protection. In technology advanced developing countries, there is some evidence that IP protection becomes important at a stage of development, but that stage is not until a country is well into the category of upper middle income developing countries.

4.2.1 Problems of Patent Registration and Procedure in Nepal

According to article 33, patent protection is available for 20 years from the filling date. However, in Nepal, according to IP Act, 1965, Patent protection is available for seven years and can be renewed twice for seven years at a time. Compulsory

licensing and government use without the authorization of the right holder are allowed, but are made subject to conditions aimed at protecting the legitimate interests of the right holder. These conditions include the obligation, as a general rule, to grant such licenses only if an unsuccessful attempt has been made to acquire a voluntary license on reasonable terms and conditions within a reasonable period of time. Certain of these conditions are relaxed where compulsory licenses are employed to remedy practices that have been established as anti- competitive by a legal process.

In Nepal, protection of intellectual property rights is inadequate. Patent registration, according to the 1965 Patent Design and Trademark Act, is only valid for seven years and can be extended twice for a total period of twenty-one years. In addition, Nepal doesn't automatically recognize patents awarded by other nations. The Copyright Act, 2002 is similar in that it does not recognize foreign patents; foreign patents must be re-registered in Nepal. However, the act covers most modern forms of authorship and provides adequate periods of protection but enforcement is weak.

Nepal should be prepared to deal with market forces emerging from countries with stronger legislation and scientific back up to patent and market bio-diversity product. We have to think positively that protection of pharmaceuticals by patent should lead to an increase in the flow of technology transfer and foreign direct invest in developing countries like Nepal .The agreement includes various provisions that enable government to implement their IP regime in a manner , which takes account of short term and long term public health considerations. There are also the needs to discourage illegal use of patents in order to ensure healthy competition and promote sustainable economic development. Changing traditional approaches to knowledge and technology based business tools which need rule based system, is also needed, however in Nepal according to a record, only 58 products have been registered for patent .Nepal is rich in bio-diversity and resources that need protection under the patent rights.

4.3 Intellectual Property Rights as a Policy Tool for Economic Development

It was pointed out that intellectual property rights should be seen as a tool to achieve certain social goods. They do not exist as an end in them, as something intrinsically good, but are valuable insofar as they achieve certain societal ends. They

can be considered as private rights which are given in the expectation of public benefits.

From the observation that developed countries have strong intellectual property regimes, we cannot draw the conclusion that strong intellectual property regimes necessarily lead to economic development. Intellectual property rights should therefore be seen as one tool amongst others to achieve development objectives. In some cases, a particular approach to intellectual property rights can lead to benefits if combined with other economic policy tools under the right circumstances. The particular approach adopted, however, should depend on broader development objectives. In this spirit, one participant also questioned the tendency to always view 'pirating' or copying in negative terms. Some countries have large copying industries which may bring important economic benefits: it may be both arrogant and unwise to choose to ignore these lobbies.

WIPO works to assist all nations, particularly developing and least developed countries, to use the intellectual property system to promote economic, social and cultural development.

WIPO's extensive activities in support of development goals are guided by the strategic goals and objectives agreed by member states in the program and budget document.

The regional bureaus of the Technical Assistance and Capacity Building Sector work closely with the divisions of the more recently established Office for the Strategic Use of IP for Development (OSUIPD) to respond to increased demand from member states for assistance in optimizing the economic value of IP, and in integrating IP into national development policies.

Key areas of activity include:

- Support Member States in technology transfer programs, especially by building capacity in critical areas such as technology licensing and patent drafting.
- Work with Member States on IP strategies to foster innovation, and to promote the creation, ownership, and exploitation of IP assets.

- Provision of support, expertise and economic analysis to enable policy makers to formulate appropriate policies in response to existing and emerging IP issues.

4.4 Benefiting from TRIPS Agreement

The TRIPS Agreement presents a statement of the intellectual property standard to which all World Trade Organization member countries have made a commitment. TRIPS were the product of a trade negotiation within the context of the GATT Uruguay Round. The intellectual property negotiators sought only to reduce trade friction. They did not consider investment stimulation, since that was not part of their mandate. Moreover TRIPS Agreement resulted from compromise among countries with strongly opposing view regarding the value of intellectual property for development. The TRIPS Agreement is in some ways an illogical package of disparate concepts.

A fairly open trading system will be important to gaining the benefits of robust intellectual property protection. Without openness, strong intellectual property protection could produce tendencies toward less competition, whether because of investment restrictions, market size problem or other similar conditions in a closed economy. Trade makes partial substitutes more readily available, with a corresponding influence on rent seeking. In other words, robust intellectual property protection can be expected to produce maximum benefits in markets where private capital and open trade are encouraged.

TRIPS Agreement may be of sufficient strength to assist international trade flows, but it will fall somewhat short of the historic role of intellectual property in stimulating local private activity ranging from research and development of innovative technology to the creation and expression of artistic, literary and scientific works, thus in making any assessment of the implications of the TRIPS Agreement, it is probable that an ability to strongly encourage private investment in high level technology pursuits will not emerge as a major characteristic of the TRIPS Agreement While the TRIPS Agreement establishes a common base for the world, the ability to strongly stimulates these higher levels of protection. While robust protection will serve best to encourage high levels of technically activity in developing countries like Nepal, full TRIPS implementation will

give many developing countries a considerably improved ability to stimulate particular kinds of activity generally beneficial to national economic growth and development.

4.4.1 Benefit Analysis of the TRIPS Agreement

a. Innovation

Although definable in various ways, the term "innovation" is well enough understood. That innovation has an influence on economic growth in particular country has been well established, as already noted. Less well understood is the ways innovation influences growth in the global setting. The movement of innovation from country to country involves complex mechanisms and the impact of those movements on growth under various conditions has been attracting valuable study. Invention in developing countries involves minor adaptations of existing technologies, but the cumulative effect of these small inventions can be critical for growth in knowledge and activity. Moreover, to absorb knowledge and know how in advanced technologies requires considerable investment in such factors as process control and product quality maintenance. These investment tend to have high social returns in developing economies because they are crucial for raising productivity toward global norms (Evenson and Westphal, 1997)

b. Price Levels

When patent law changes so that subject matter previously excluded from Patent protection becomes patentable, the prices of products already in the market will not change as a result of the newly introduced patent protection. Nor will competing imitation products disappear from the market or change their prices. Because the TRIPS Agreement does not contain a "pipeline" provision, only inventions made after the law changes will be eligible for patent protection and it will normally take some time for those inventions to ripen into products which reach the market. Even if a "pipeline" provisions were enacted, any effect on price is delayed until products then in the pipeline actually reach the market. There is extensive literature regarding the desirability of patent protection, much of it theoretical, which is mostly focused on the United States economy. Within that literature, few studies forecast how price levels in developing countries might differ after patents become available. Although a more disinterested analysis would be helpful, the Italian experience with pharmaceutical prices after 1978 is suggestive. After the Italian courts ruled against excluding pharmaceutical inventions from patentability

that year, the prices of pharmaceutical products rose over the next ten years, but by less than the increase in the consumer price index.

To some it is axiomatic, at least concept, that prices will rise when patent protected products are introduced. That is to say, prices will be higher than they would have been had there been no patent protection. The ability to exclude others from the invention would seem to point in this direction. Yet there are important constraints on upward price movement. One is competition, while another is the threat of competition.

It has been noted by more than one observer in a major developing county that "pirates" have been known to fix prices among themselves, producing prices under a non robust system of protection that are higher than might be expected from imitation products. It is difficult to research this phenomenon, of course, without clear evidence of price fixing. To the extent it is true, higher prices may not be significant consequences of compliance with the TRIPS Agreement.

The role of Patents in many industries is not price enhancement but primarily to defend against immediate copying. The patent frequently stimulates investment in innovation, not because it offers an exception of higher price levels, but because it offers assurance that others cannot immediately copy a successful product or use a successful process.

c. Technology Acquisition

Under non robust system of intellectual property little proprietary technology is likely to be acquired for three reasons.

First, most kinds of technology will not be willingly provided by their originators either through sale or license if their release into a non protective environment places them at risk of loss to competitors. This is particularly true of any supplier's latest and best technology. Suppliers concerns can be overcome if the recipient has some means to protect the technology from loss without resource to intellectual property protection. For example, it may be possible to subdivide the technology in such a way that only a few trusted employees or family members have access to the complete package of technology. For non robust environment, however, the tendency will be for suppliers to limit their willing transfers to older or less competitive technology. There will be a companion effect where willing transfers of technology are made to a non robust country.

The cost of the technology acquisition will tend to be higher to the extent the suppliers anticipates risk of loss and builds a cushion into the price in response.

Second, some technology can be acquired without the willing participation of the suppliers or the originating source of technology, but there are limits to the kinds of technology which can be acquired and limits on the uses to which it can be put. Most process technology falls into the category. To be sure, several obvious examples suggest that some products are easy to acquire things like pharmaceuticals and software. Yet, while such products may acquired by copying, the technology from which those products are derived is not usually acquired in this process. Moreover, the skills needed are copy is often not the same skills needed to practice the technology underlying the products

Third, even technology which is otherwise freely available from foreign sources may not be appropriated and developed for local market by local firms or individuals. This is because, if these firms or individuals are without the means to protect the results of their appropriation from local copying, they are unlikely to have much incentive to build up the necessary human skills and will be unwilling to invest their time and money in such a venture. Technology enters many countries when it is embodied in imported machines and equipment. Reverse engineering can reveal the embodied technology, but suppliers are nonetheless willing to commit these products to non robust markets because the capital costs for others to enter those markets are large enough to reduce their risk of loss to competitors.

The TRIPS Agreement will provide sufficient protection to encourage the willing transfer of some technology. Whereas a robust, investment oriented intellectual property system is likely to facilitate a greater volume of willing transfers and greater adaptation and application of the technology of local conditions.

d. Human Skills Development

There is a threshold in protection which must be reached before local companies will become willing to invest in training and internal research and development of products and processes. It is not clear yet whether the TRIPS level of protection reaches that threshold. In the patent area, the ample leeway for compulsory licenses which reduces the effect of a patent, among other factors, may place TRIPS short of the threshold; still,

some firms are likely to be stimulated to greater investment by even the TRIPS level of protection.

After a nation's intellectual property system has crossed that threshold of protection, the willingness of companies to invest in employ development at higher skills levels becomes almost an imperative

e. Science in Agriculture

In many developing countries, the agricultural baser is dominant in the economy. The ability to apply new science to agriculture is increasingly influenced by intellectual property protection for two reasons.

First, the traditional role of government as the primary suppliers of science for agriculture is diminishing, largely because of budget constraints.

Second, much that is new in agriculture is being derived from bio-technology, and much of this work is being done in private companies.

The traditional role of government in supplying science to farmers had to do largely with methods which tend to be non proprietary. Education was the core of the service. Although improved seeds and livestock were also provided. These improved life firms came from traditional research, chiefly the selection of the best plants and animals for breeding, cross breeding and hybridization.

The contribution of biotechnology to improving plants and animals above the level of microorganism is growing rapidly. Transgenic plants and animals already are making an impact on markets. It can be anticipated that before many years, commodity crops which compete in international markets will be differentiated through genetic engineering, so that products from some countries will be superior to those from others.

Since this work is being done largely in private companies, it may that countries with robust intellectual property systems will be better able to stimulate this kind of research; whether transgenic products from such countries will rapidly reach other countries may be in question. The possibility of imitation and copying may be limited for plants and even animals, since soil, disease and climate conditions tend to be particular to country or region. Because of these conditions, work on transgenic agricultural and aquacaltural product is best done locally. Whether private investment will be forthcoming and whether the related human skills will be developed will be influenced by the level of intellectual

property protection of a country. The TRIPS Agreement states without further elaboration that "Members shall provide for the protection of plant verities either by patents or by an effective sui generis system or by any combination thereof." Animal varieties are not mentioned. In the absence of further elaboration, it is difficult to project the effect of TRIPS on agricultural research. If only the minimum requirement is adopted, traditional methods will gain protection, but use of the tools of biotechnology will not be stimulated. Thus, it is likely that only a robust , investment stimulating level of protection which offers both will fully support the application of the best new science to agriculture.

f. Industrial Base

To the extent that the level of intellectual property protection influences the industrial base of country, the characteristics of the industrial base appear to change in important ways as a country shifts from a non robust system to higher levels of protection. The extent of that influence may be grater than is generally recognized. Mansfield, in ground breaking empirical work for the international Finance Corporation of the World Bank Group, studied the influence of intellectual property on private investment, join ventures and technology licensing in 16 countries: Japan, Spain and fourteen leading developing countries.

His findings were drawn from questionnaire responses received from ninety four American, thirty two Japanese and twenty German corporations selected from six manufacturing industries: machinery, metals proceeds food, electrical.

Mansfield found that:

The strength or weakness of a country's system of intellectual property protection seems to have a substantial effect, particularly in high technology industries, on the kinds of technology transferred by many US firms to that country. Also, this factor seems to influence the composition and extent of US direct investment there, although the size of the effects seems to differ greatly from industry to industry.

Most of the benefits to be derived from higher levels of protection will not be felt immediately and their magnitude will depend importantly on the level and quality of the protection ultimately adopted. The TRIPS level of protection will produce fewer benefits than a more robust, investment- oriented level of protection.

Still, the TRIPS level should be sufficiently simulative to make some difference. Particularly for international trade flows associated activity. For local companies which must function largely within the local setting for the origination of their technology as well as its development, production and commercialization, a higher level of protection would be more encouraging.

On balance, it appears that the impact of the TRIPS Agreement on most developing countries is likely to be slightly negative in the short run and increasingly favorable as local firms and individuals begin to realize the potential benefits for their activities. Public education will play a role in the speed with which the benefits are realized. Naturally, conditions such as inflation, taxation, tariffs and other macroeconomic policies will dominate private decision making.

4.5 Viable Remedies to Gain Maximum Benefit from TRIPS Agreement

An intellectual property right without a legal remedy amounts to little more than an expensive illusions. The TRIPS Agreement attempts to eliminate such illusions. Articles 41 to 61 particularize at length basic measures designed to assure that legal remedies will be available to sustain and defend intellectual property rights. These articles provide that right holders are too available the means to effective actions against any act of infringement. There are to be expeditious remedies to prevent and deter infringement. Procedures are to be fair and equitable, not unnecessarily complicated or entail unreasonable time limits or unwarranted delays. Decisions on the merits are to be preferably in writing and reasoned, made available to the parties without undue delay, and based only on evidence the parties had an opportunity to rebut. Civil and administrative procedures and remedies are delineated in one article. They include the assurance that confidential information will be protected during and after proceedings. In another article, authority to discover evidence solely in the hands of another party is to be provided, and refusal to provide evidence may not stand in the way of a decision. The conditions under which precautionary measures, such as injunctions, are to be made available are stipulated in a third article. Other articles recite the approach to damages, to other remedies, to compelling information regarding other infringers and indemnification of defendants. Article 50 deals with provisional measures in detail. This includes measures to be taken even in the absence of the infringing party. Article 51 to 60 requires

member countries to provide authority for a party to lodge a request with customs officials to block the importation of infringing goods. These border measures are balanced with precautions against false charging and delays. Article 61 specifies various criminal procedures which are to make available to prevent infringements. These articles set out a blueprint for effective defense of intellectual property rights.

It seems likely that effective remedies for intellectual property will become reliable and widely available in countries with currently weak judicial systems only after reforms upgrade that judicial system in general. Nonetheless, remedies can be instituted sooner which offer partial support for effective intellectual property remedies. Prominent among these are the creation of specialized courts, enhanced training for judges and provision of judicial tools for action. Opportunities for arbitration also deserve consideration.

The extent and nature of technical assistance that would be desirable for developing countries will depend on the state of each country's current intellectual property system. Some will need more assistance than others. Much will also depend on whether the suggested cost reduction measures, such as adoption of a reference system for patents, are adopted. They may be some resistance, particularly among small countries, to aid offered directly by larger countries. Small countries often fear domination by donors and prefer aid from multilateral institutions. Common to the greatest number of developing countries will be a need for assistance in creating protection for integrated circuit designs. Integrated circuit design protection could benefit from international co-operation arrangements comparable to the patent co-operation treaty's arrangements for patents. Something comparable to the reference system for patents can be adopted by individual countries even in the absence of an international treaty. In developing countries which elect not to patent transgenic plants, there will be need for assistance in creating protection for plant verities. New plant verities tend to be specific to countries or regions because of local soil and climate conditions. Still, the potential for cooperation in examination is considerable and model arrangements are available from the UPOV secretariat in Geneva.oppertunities for cooperative global arrangements comparable to the patent cooperation treaty exists. The secretariat is well prepared to assist countries introduce this type of protection and can offer model texts or

sample laws. The 1991 Act of the UPOV deserves careful consideration in this regard as does the WIPO arbitration center. The key to modern trademark administration is high performance software with phonetic and graphic capabilities coupled with training for those who use it. The good services of WIPO can provide access to and help with introduction of such software. Much the same can be said of industrial design protection. For most countries, the extension of patent administration will constitute the area of greatest need. Suggestions for reducing related costs .installing and upgrading computerized administration, training of personnel and access to online information constitute subjects for technical assistance from various sources. Attention to cost accounting for patent and trademark administration can provide valuable information for effectively managing these functions.

A major obstacle to upgrading intellectual property systems is the lack of trained people qualified to conduct an effective public administration. In addition to training programs provided by WIPO, some specialized law schools have programs in intellectual property.

The greatest two difficulties facing developing countries as they comply with their TRIPS commitments are the challenges to provide sustainable high quality public administration and to offer effective judicial enforcement for intellectual property. In the majority of cases, public offices which grant and maintain industrial property rights are not well prepared to cope with responsibilities which will expand abruptly at the turn of the century as a consequence of the TRIPS Agreement. To diminish the jolt, advanced preparations are indicated. Among these preparations are decisions regarding how patent administration will be financed and how patent examination will be conducted. Adequate financing of patent administration could be assisted by converting the patent office into a semi autonomous institute with authority to retain the fees it receives and apply them to capital and operating expenses. A number of countries have made this shift recently. Such offices then become quasi- profit centers. There is an obvious tension between charging high fees to assure interest investing in the country. The increasing burden of patent examination can be largely relieved through adoption of the suggested “Reference System”. At the same time, the quality of patents granted by the country will be increased.

The inability of some developing countries' judicial systems to provide effective remedies for infringement of intellectual property rights extinguishes the credibility of that country's intellectual property system. This is felt most acutely by local citizens who might consider investing time and money in creative and inventive activities. Judicial reform is essentially a matter of political will. Once it is more widely understood that a national economy suffer substantially for lack of an effective judiciary, deep and comprehensive reform can be achieved.

B. PRESENTATION AND ANALYSIS OF SECONDARY DATA

4.6 Intellectual Property Administration in Nepal

Nepal has two IP offices for administration of intellectual property rights. It is lagging behind in respect of development of intellectual property system. Intellectual property is divided in major two parts: Copyrights and Industrial Property. She has two IP offices namely Nepal Copyright Registrar's Office (NCRO), under the ministry of Culture, Tourism and Civil Aviation for Copyright and Related Right Protection and Department of Industry (DOI), under the Ministry of Industry, Commerce and Supplies for industrial property right protection.

4.6.1 National Laws for IPR Protection in Nepal

Intellectual property related law came into enforcement in Nepal in 1937 with promulgation of Patent, Design and Trademark Act. Provisions for the protection of industrial property of the national were included in this first act. Patent, Design and Trademark Act, 1965 replaced the first act and is still in force. Present act also provides intellectual property rights in respect of industrial property of foreign origin as well. This act, having undergone an amendment in 1987, regulates present industrial system of Nepal. In respect of another important field of IPR, the right over the artistic and literary work which is popularly known as copyright comes into the legal setup only in 1965. The enactment of new Copyright Act,2002, compatible with various international conventions and treaties as well as national and international needs and practices made significant improvement in legal arrangement for protecting the rights literary and artistic work and also copyright rules, 2004 in Nepal for protecting the rights of literary and artistic work.

4.7 Industrial Area

The Patent, Design and Trademark Act, 1965 gives the definition of the patent, design and trademark. Procedures for application, examination and registration are broadly stated. Areas of protection and limitations of the right of the owner are defined in the act.

4.7.1 Major provisions made under Patent, Design and Trademark Act

- Defines the patent, design and trademark;
- Application process and necessary documents clearly mentioned;
- Provision for examination committee which will be chaired by the director general of DOI.
- Certificate after registration;
- Written information in case of fail in registration ;
- Publication of registered patent by DOI;
- Provision of compensation in violation of act
- Punishment up to Rs.0.5 Million in infringement;

4.7.2 Terms of protection (Industrial area)

- Registered patent is valid for seven years and can be renewed two times of same period;
- Registered Trademark is valid for five years and can be renewed many times of same period;
- Registered design is valid for seven years and can be renewed two times of same period;
- Trademark may be cancelled if not used up to one year;
- No protection without registration;
- Foreign patent, design and trademark will be registered without examination if filled with registration certificate of foreign country;
- Ownership transferred as per written agreement/permission.

Shortcomings in the existing Industrial Property Act:

- The rights of the owner conferred by the protection are inadequate
- The act does not cover all aspects of industrial property such as integrated circuits or layout design, utility model, different kinds of marks, repression of unfair competition as well as various issues emerged in the IPR regime;

- There is lacking in defining proper technologies of industrial properties;
- There is the lack of opportunity for opposition and hearing before the registration or grant of particular industrial property. Although provision of complaints for cancellation after registration is provided in the act but procedure to this regard is not clearly mentioned;
- There is dissatisfaction among the IP holder on enforcement provision of the act. Penalty for infringement of right is very nominal and provisions for confiscation of infringement related goods and compensation are not clearly defined. There are no criminal procedures and custom measures for protecting industrial property rights;
- Examination and search criteria for the grant of a particular industrial property are not well stated.

4.7.3 Major functions and Duties of DOI

- Examination of proposal regarding IP registration;
- Registration of patent, design and trademark;
- Certification of right owners;
- Monitor and control of industrial institutions;
- Punish and compensate the violator as per semi-judiciary power;
- Classification of the goods and services for registration of trademark ;
- Conduct the awareness programmer for IP protection.

Table -4.1: Number of registration of Patent, Design and Trademark in Nepal

Year	Trademark		Patent		Design	
	National	Foreign	National	Foreign	National	Foreign
Up to 91/92	5,720	2,880	14	18	03	15
Up to 2000	4,223	3,817	03	08	04	09
Up to 2005/06	4,195	2,428	08	08	10	22
Up to 12/04/2008	541	1918	03	01	0	06
Total	14,679	11043	28	35	17	52

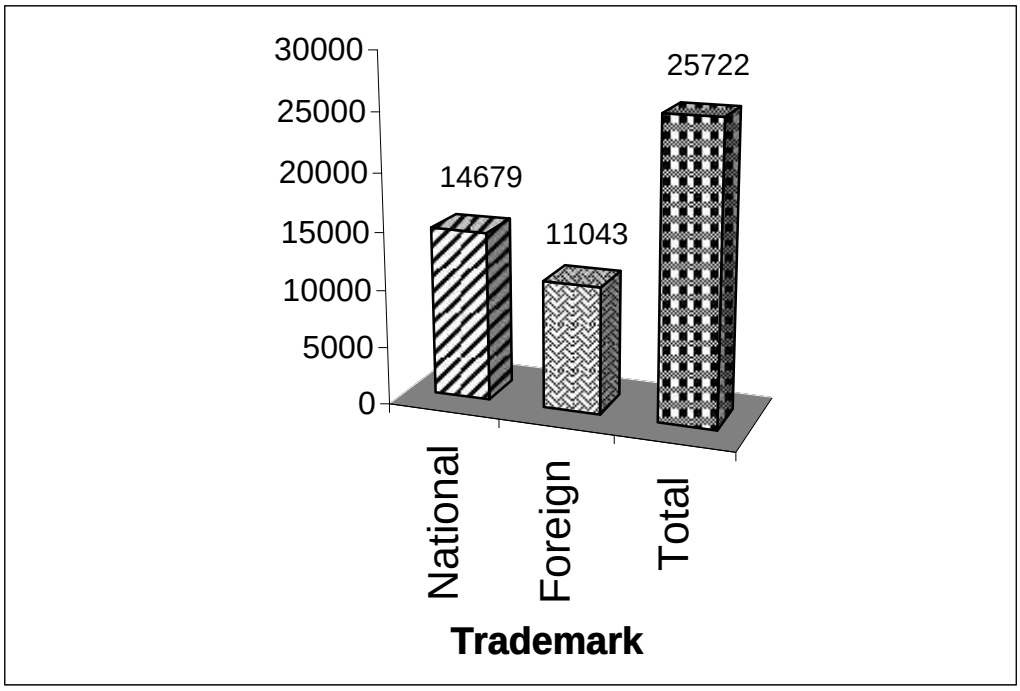
Source: Government of Nepal, Department of Industries (2008)

Records of the industrial property section of DOI show that there are total 14,679 national trademarks and 11043 foreign trademarks,28 national and 35 foreign patent and 17 national and 52 foreign industrial designs registered up to 2008. Only patents for invention, industrial design and trademarks (including service marks) are dealt as industrial property. Other types of property like utility models, various types of mark as group marks, certifications marks, geographical indication as well as appellation for origin are not covered by the administration of industrial property.

- The following chart- 4.1 shows the number of trademark registered in department of industry. There is hopeful presence in foreign marks registration. There are 11043 foreign trademarks registered in Nepal. The total number of registered marks is 25722 out of which 14,679 are from home country i.e. national.

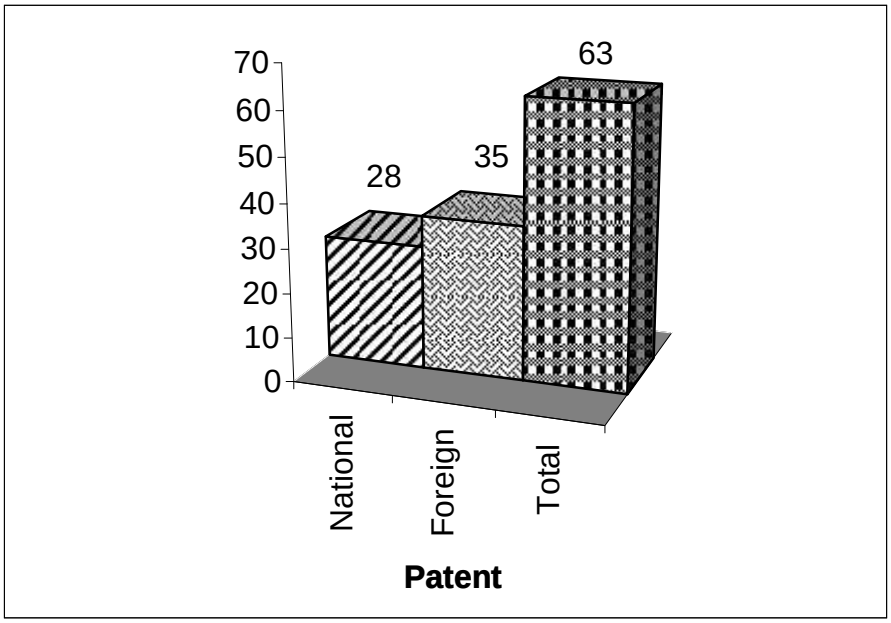
- Comparison with other industrial property the industrial property section is more engaged in administration of trademark. Some people gave the trademark section to the industrial property section since they found the administration of patent and design is in weak situation.

Chart 4.1: Registered Trademarks in Nepal for National and Foreign Companies



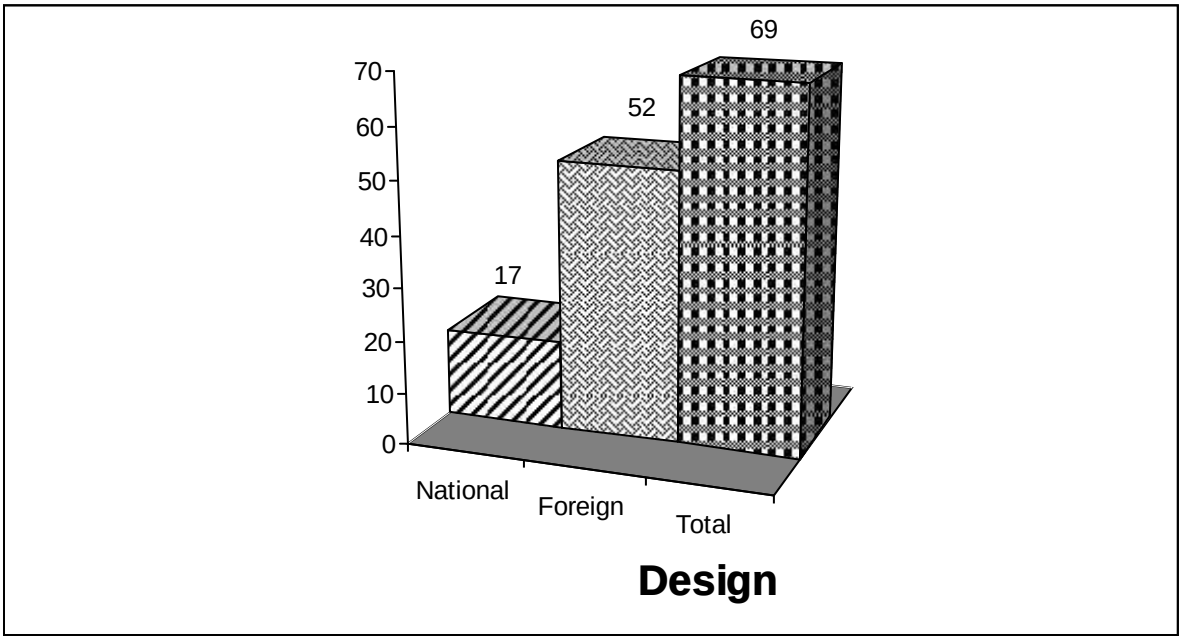
J The chart- 2 shows the glance picture of patent registration in our case. The number of registered patent is very low Up To 2008 only 59 patents registered Nepal. The following chart shows the number of national patent is lower than the foreign. But the total number is not satisfactory. In some fiscal year even a single patent was not registered.

Chart - 4.2: Registered Patent in Nepal



J The chart- 3 presents the picture of design registration in the department of industry. Up to now 69 industrial designs are registered. Out of them 52 are from foreign and 17 from national. The figure leads to the unsatisfactory picture of innovative designs.

Chart - 4.3: Registered Industrial in Nepal



4.8 Copyright Area

The first copyright act of Nepal was enacted in 1965 which was revised in 1997.First Copyright Rules came in Nepal 1989. First copyright act had some shortcoming in respect of protecting rights of creation for artistic and literary works. It was not compatible with the provisions of Berne Conventions, TTIPS Agreements and other international conventions and treaties related to copyright related laws. It was must to register to confer the right over the ones' creative work. Terms of copyrights and performing rights were not clearly defined and all types of rights like the rights to performers, broadcasters, sound recorders etc. were not included that act. Provision of enforcement was not sufficient and unclear. To address these shortcomings in the act, a new copyright act was promulgated in 2002. This act is based on WIPO model law in this respect and has been drafted with the technical assistance of WIPO. Private organizations in this sector hand played significant role in the enactment of this act. The new Copyright Rules 2004 was enacted under the new Copyright Act, 2002. This act is compatible with international practice and able to address the needs of copyright holder of the country.

4.8.1 Major provisions under Copyright Act, 2002

- All predictable items covered as international instruments;
- Department level NCRO established for law administration;
- Provides automatic protection, minimum period and national treatment;
- Provision of moral and economic rights, registration, and CMO's;
- Provision of compensation over infringement;
- Up to six month imprisonment or up to Rs.0.1 million or both penalty over infringement;
- Infringement cases treated as criminal cases &policy officer will investigate;
- District court is responsible for treatment with shortcut process.

Terms of protection:

- Life long and 50 years after death for literary works;
- 50 years for performer, sound recording, producers and Broadcaster;
- 25 years for architect design, photographic work and applied art;
- No compulsory registration for protection;
- Work created by an author or producer residing in Nepal or in the member country of WTO shall enjoy the protection under this act.

Important functions and duties of NCRO:

- Registration of creation;
- To certify, monitor and control of the CMO';
- To hear petitions of unsatisfied parties in royalty;
- To aware the society.

Table-4.2: Records of the Copyright registration

S.N.	Sectors(Discipline)	1965-2000	Sep,2004-oct,2006
1	Literature & audiovisual	1150	
2	Literature writing		225
3	News magazine (publication)		1
4	translations		5
5	Art / painting		27
6	Sound recordings		32
7	Architecture		2
8	Computer software (programming		7
9	presentation		2
10	Photographic works		13
11	Research paper		3
	Total	1150	317

Source: Nepal Copyright Register's Office (2006)

Concerned institutions of IPR:

A. industrial property sectors

- Ministry of Industry, Commerce and Supplies;
- Department of Industry ;
- Office of the Company Register;
- Department of Cottage and Small Industries;
- Cottage and Small Industries Development Board;
- Research Center for Applied Science and Technology;
- Nepal academy of Science and Technology;
- Nepal Agriculture Research Center;
- District administration office;
- FNCCI and FCSI;

B. copyright related sectors

- Ministry of Culture, Tourism and Civil Aviation;
- Nepal copyright Register's Office;
- District police Office;
- Custom Offices;
- District Attorney Office;
- District Courts;
- Informal Collecting Societies;

Problems /Issues of Intellectual Property Rights:

- Negligence of law enforcement that trained people in the wrong way;
- People are not aware about Industrial Right and Copyrigh;
- People are attracted to the pirated goods which are cheap;
- Pirated goods are imported from the other country;
- People don't like to deal with policy so they do not protest & appeal against pirated goods sellers;
- NCRO has no authority to punish over the infringement of rights;
- Lack of formal educational and training institutions for the study of IP;
- It is hard to change the concept of people regarding of IP.

4.9 International Conventions, Treaties and Organization:

4.9.1 Nepal is a member of the following International Treaties and Conventions:

⁾WIPO establishing convention- Nepal singed the instrument of accession in 1996;

⁾ Paris convention for the protection of Industrial property 1883 (as amended in 1979) – singed the instrument of accession of 16 march 2001;

⁾NICE classification system for the registration of marks (trademarks, service marks) is being followed although Nepal has not yet singed the agreement;

⁾Preparations are in progress for acceding to Berne Convention for the protection of literary and artistic works, patent cooperation treaty, 1970 and Madrid Agreement concerning the international registration of marks and the protocol relating the agreement.

World Intellectual Property Organization (WIPO) is contributing significantly for the development of intellectual property system of Nepal. It has sent different expert

mission to Nepal for strengthening and modernization of intellectual property system and has provided opportunity to Nepalese policy makers, officials, and business leaders to participate in the IP related international forums. The WIPO extended assistance especially in following important areas:

- Technical assistance for drafting the new copyright act and regulation and industrial property protection act;
- Training opportunity for IP officials, lawyers, judges, police, custom officials in abroad;
- Organizing of various national seminars and workshops for enhancing awareness in the country;
- Providing computers and other office-equipment and WIPO net facilities and
- Automation of industrial property administration, etc.

There is a very low rate of cases filled against infringement and violation of IPR. In copyrights matters, cases are handled directly by police offices so that the statistics on the number of cases of field are not available. As per media reports, the police have taken action in few cases of unauthorized copies and duplicates of audiocassettes and CD's of music and future films. As regards the industrial property, the department of industries handles cases against the infringement and violations. District administration offices, police and customs offices also provide necessary assistance to the department in handling these cases. Following table shows the data of cases filled and decisions made by the department regarding the infringements and violations of IP rights

Table-4.3: Cases filled and decision

Year	2000	2001	2002
Case filled numbers	41	29	47
Decisions numbers	7	14	13

Source: Government of Nepal, Department of Industries (2006)

The data indicates a very low number of cases being finalized in the department. In the table, the finalized cases depicted in the table few cases that are settled on mutual agreement. The department is short of manpower with sufficient knowledge and expertise

in IP field to handle these matters. Also, there are no standard manuals and defined working process to handle these very sensitive cases.

4.10. Major findings of this study

Intellectual property rights are regarded as a powerful tool for national economic development. The history of the developed country showed the positive relationship with IPR protection and economic development. We don't have such data which proved the above relation. Nepal has entered in multilateral trading regime by accessing the WTO membership which is not only opportunities for the nation's development but may threat to exploit resources. The world trade is very competitive; to take advantages from such competition the policy should be strengthen. There needs policy integration to meet the development challenges. Intellectual property, one of the visible sectors to development through technology transfer and other means of innovation have to be given more priority in the context of WTO.

This study has provided an overview of the functions, value and impact that a patent system has in the age of rapid technological innovation. The patent system needs to be constantly adjusted and implemented so that the best balance between the right holders, new entrants to the market; the public at large and civil society is achieved. The potential patent system has been widely recognized in the context of knowledge, creation and dynamic innovation.

This study was confined in very limited area but it tried to draw some inference to incorporate IP as a policy tool for economic development. Since the study found that policy makers' role is crucial to adopt IP as a development tool. Patent licensing operates beneficially only when there is a market in which the licensee and licensor can efficiently make, use and sell products incorporating their inventions. Thus, in strategic patent planning policy makers will address market definition. Nepal has a relatively small population of potential consumers or manufacturing base may not be an attractive locale for licensing because the royalties that can be realized in such a market are too small. In order for licensing to work, there must be a big enough market so that royalties can be lucrative. This leads to the logical conclusion that regional collaborations, where all members recognize the validity and enforceability of patent issued by other members,

will in some cases create more attractive licensing markets, further advantages of such regional approaches are the possibilities of leveraging expenses of IP office administration and information technology, exchanging expertise, and promoting knowledge exchange.

It is found that effective patent laws, adequate technology infrastructure and adequate IP protection and enforcement all permit the patent system to work optimally. Enforcement is especially important, as without enforcement of IP rights, the patent system can not operate in practice as it promises in theory. Finally, Patents are a powerful tool for economic development. This tool can be used by developing nations and developed nations alike, by multinational corporations as well as SMEs.

Analyzing various literatures, the protection of IP rights could play the favorable role to promote FDI, technology transfer, and innovation. To cope with the changing problems in IP sectors, the IP offices should be strengthened through applying automation. The staff should be trained and their transfer and placement should be systematized. There is a need of bringing two IP offices in one umbrella under minister of Industry, commerce and supplies.

CHAPTER -V

SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 Summary

Intellectual property rights are now regarded as the vehicle for the innovation, technological transfer which ultimately support in economic development of a country. The Millennium Development Goals (MDGs) are being major concerns for every country. Nepal has taken poverty reduction as her prime development policy. The different periodic plan of Nepal failed to incorporate IP policy and strategies timely. The government has not any specific policy guidelines or long term vision document on intellectual property. The tenth plan is its main policy document which seems lacking in integrating intellectual policy with development policy. Intellectual Property administration is not entirely new to Nepal. The currently working act regards to industrial property does not compatible with the provisions of TRIPs and the Paris convention for the protection of industrial property. Nepal entered in WTO a multilateral trading regime as 147th member and recognize as the first member from least developed countries (LDCs). We have answered many questions set by WTO in acceding process; the policies are not properly formulated to get benefits from the membership. So is in IPRs field. In this context, some questions were put in this study.

- What are the problems in patent registrations and administrative procedure in Nepal?
- How much the IP policies address the need to focus on economic development of country?
- How far the IP protection supports in technology transfer?
- What remedies could be taken for getting maximum benefits from TRIPS Agreement?

To seek the solution of the above mentioned problems of this study the following objectives were set:

- To identify problems in patent registrations and administrative procedure in Nepal;
- To review the IP policies whether they address the need to focus on economic development of country;
- To examine the impact of IP protection in technology transfer and
- To suggest viable remedies which could be taken for getting maximum benefits.

The study carried on a descriptive way. The acts were reviewed and administrative set up of IPR were studied. The secondary data obtained from DOI and respective government organizations were analyzed during this study. By reviewing the literature, analyzing the secondary data and interaction with concerned policy makers leads to conclude the following in regards to study topic.

5.2 Recommendations

The government of Nepal has to formulate appropriate policies regarding Intellectual Property Rights in conformity to TRIPs for the National economic development.

5.2.1 Industrial Property

I. Nepal should not be delayed to be a party of Patent Cooperation Treaty (PCT). Since the patent role is viable in economic development.

II. The latest Industrial Property Ordinance needs publicity to every stakeholder.

III. There is a chance of taking benefit from registering our heritage, plant variety and other indigenous property as patent. This needs creating homework and rigorous efforts. We should not be delayed in the process.

IV. Enforcement mechanism should be strengthened by establishing sound coordinating system.

5.2.2 Role of IP Office

I. Single and well-equipped IP office should be established under the Ministry of Industry, Commerce and Supplies.

II. The IP office should create an intellectual property culture among all countries and all sectors of society as well as integrating intellectual property policy in economic development policies and programs.

III. The IP office should facilitated worldwide protection of intellectual property rights by conforming national intellectual property systems to international standards including the streamlining intellectual property administration through rationalization of administrative procedures and utilization of information technology.

IV. The IP office should facilitated adequate intellectual property protection of advanced technologies.

IV. The IP office should give assisting small and medium-sized enterprises (SMEs), venture businesses, and research and development institutions in utilizing intellectual property systems.

V. The IP should nurturing and developing human resources for the efficient and effective protection of intellectual property rights.

VI. The IP offices should created a desirable environment for the enforcement of intellectual property rights by strengthening links with enforcement agencies and raising intellectual property awareness among the general public.

VII. The IP should disseminating intellectual property information properly to stimulate inventive and innovative activities and thus further creation of intellectual property rights, as well as to activate intellectual property right transactions.

VIII. The IP office should provide user-friendly services, including consultation services to enable the user sector to derive the most from intellectual system.

5.2.3 The protection of IP

- NCRO must be provided with some legal rights regarding punishment over infringement
- Public awareness programmes through electronic media must be increased concerning the violation of IP Acts
- International institutions must support to establish IP Training Institute in Nepal for the protection of IP
- IP related matters must be included in the curriculum of formal educational and training Institutions.
- More efforts are needed to replace habitual thinking of the public on IP issues, and adapt a new concept on the importance of IP protection.

5.2.4 Benefit from SMEs

- The initiatives that could be taken by intellectual property administration to institute national norms and standards for the protection of advanced technologies in light of international developments;

- The need for setting up efficient mechanisms to assist SMEs, particularly start-ups, venture businesses, and research and development institutions through nurturing intellectual property professionals;

- The desirability of promoting national, regional and global intellectual property exchange and transaction markets, in view of facilitating technology transfer and licensing, with easy accessibility for the aforementioned entities;
- The Benefits of the Global Protection Systems and the Progressive Harmonization of Intellectual Property Laws
- The increased relevance and benefits of the global intellectual property protection systems such as the PCT and Madrid systems in the global context, , and the reform necessary to face future challenges in sustaining and improving the functionality of the ever-growing systems;
- The general recognition that the harmonization of national patent systems could enhance predictability and user-friendliness in the acquisition of patent rights;
- The perceived necessity for exchanging information on patent search and examination among intellectual property offices and rationalizing the patent examination procedure, as well as the call among users for the reduction of patenting costs;
- Human Resource Development for the Efficient and Effective Protection of Intellectual Property Rights
- The need to develop human resources for the betterment of intellectual property office operations in such areas as the modernization of management approaches, the enhancement of capability in information technology and other advanced technologies, and the augmentation of a service-oriented mindset;
- The desirability for intellectual property offices to make available their expertise and experience on intellectual property issues to other governmental organizations relevant to the protection and enforcement of intellectual property rights, particularly enforcement agencies and business communities as well as to the general public;
- The request that WIPO increase its efforts, within available resources, to provide intellectual property offices of the Asia-Pacific region and associated intellectual property training institutions with necessary assistance and guidance to facilitate their human resource development efforts as well as cooperation among them.

5.3 Conclusion

Intellectual property law is one of the fastest growing branches of law in the world today. The phenomenon technological development in transfer in communication has resulted in the globalization of trade and commerce. This has its impact on patent, which is assuming international character .The world has developed far more in the past 50 years then in any other period of history due to technological progress. TRIPs Agreement forces the countries to have a minimum level of IPR protection and that the IPR regimes in all the WTO member countries are going to be harmonized by December, 31, 2005. It may facilitate access to technologies that the title holders may be reluctant to transfer in the absence of IP protection.

Nepal is considered one of the richest countries in biological diversity. It occupies 0.1% of global area in terms of biodiversity, it is ranked 20th in the world. Loss of biodiversity will not only result of loss of life support systems of the indigenous people, but also in loss to the farming community and erosion food security. Agro-biodiversity is a precondition for maintaining food security through traditional farming means. Commercial agriculture promotes a practice known as monoculture. Since TRIPs Agreement coupled with Union for Production of New Varieties of Plants (UPOV) promotes monoculture one crop epidemic could entirely wipe out the global food supply. With world economy becoming more and knowledge intensive, the intellectual property rights protection is likely to assume ever increasing importance and may be the determinacy factor for foreign direct investment. There are three channels through which technology is transferred occurs boarders: International Trade in goods, Foreign Direct Investment (FDI), licensing of technologies and trademarks to unaffiliated firms, subsidiaries and joint ventures.

Patent gives temporary protection to technological innovation; it is monopoly rights granted to a person who has invented a new and useful article. The objective of granting patent is to encourage and develop new technology and industry. There is more evidence about the impact of patent protection in developed countries, it appears to indicate that large firms consider patent protection of considerable importance in particular sectors. (like Pharmaceutical).

Moreover, patent seem to be hardly used by SMEs in most sectors in many developed countries, as means of promoting their innovations, or as a source of a useful technical information.It seems to be that for those developing countries that have acquired significant technological and innovative capabilities, there has generally been an association with "weak" rather than "strong" forms of IP protection in the formative period of their economic development.

Nepal has entered into global multilateral trading regime, WTO as the 147th member in 2004. Nepal has been getting many opportunities and facing challenges. Nepal could get maximum benefits from increasing competition power like technological innovation, price level, quality of goods and services etc. Most of benefits to be derived from higher levels of protection will not be felt immediately and their magnitude will depend importantly on the level and quality of the protection ultimately adopted. The TRIPs level of protection will produce fewer benefits than a more robust, investment-oriented level of protection. The greatest two difficulties facing developing countries like Nepal as they comply with their TRIPs commitments are the challenges to provide sustainable high quantity public administration and to offer effective judicial enforcement for intellectual property. In the present context, the data indicates that there are lower level national patent than foreign patent. So, Nepal should give preferences to intellectual property and should make robust protection of intellectual property.

In my view, human capital development is a vital component of patent policy. Sowing seeds in public education, from early childhood to post secondary levels, to encourage creativity, inventions, respect for new ideas, and confidence in indigenous development, will bear a rich harvest. It is not enough to teach that IP Rights must be respected; the positive benefits to the nations of innovations and intellectual property must also be explained. If country is focusing on agricultural development, chemicals and irrigation technology, it will not necessarily want to promote licensing of semi conductor technology or biotechnology. Creative marketing and commercialization of traditional knowledge, culture and folklore, and all other local resources, within the context of patent system, are important.

BIBLIOGRAPHY

Adhikari, Kamlesh (2005), *Intellectual Property Right Public Health Concerns for Nepal*, www.kantipuronline.com.

Adhikari, Liladhar (2062), *Intregating Intellectual Property Right and Development Policy*, An Unpublished Master's Thesis in Center Department of Public Administration.

Adhikari, Ratnakar (July 2000), *Intellectual Property Rights Better Wait and Watch*, Vol. 2, Business Age.

Adhikari, Ratnakar (2005), *Current Status of Doha Development Agenda:South Asian Prospective.*

Alikhan, Shahid (2002), *Socio Economic Benefits of Intellectual Property Protection in Developing Countries*, Geneva, Switzerland.

Arai, Hisamitsu (2000), *Intellectual property Policies for the 21st Century: The Japanese Experience in Wealth Creation*, WIPO Publication, Geneva, Switzerland.

Bhandari, Surendra (2004), *Multilateral Trade Integration and Human Development* in Nepal, Kathmandu, Nepal.

Chalise, Bholanath(2005), *National Study on Intellectual Property for Small and Medium-Sized Enterprises Nepal*, Kathmandu, Nepal.

Drahos, Peter, John Braith Waite (2002), *Who Owns the Knowledge Economy? P Political Organizing Behind TRIPs*, Camden High Street, London.

Gnyawali, Minprasad and Tarka Raj Bhatta (2006), *Present Status of Intellectual Property Rights in Nepal*, WIPO/UNESCAP COLLOQUIYUM, Bangkok, Thailand.

Hoekman, Bernard , Matto Aditya and English Philip(2002), *Development, Trade and WTO*, World Bank Publication, Washington DC, 369-381.

Idris, Kamil(2003), *A Powerful Tool For Economic Growth*, WIPO Publication, Geneva, Switzerland.

Industrial Property Journals of different years

Industrial Statistics of Different Years

Ministry of Industriy, Commerce and Supplies (2004), *Nepal Trade and C Competitiveness Study*, Kathmandu.

NRB (2004), *Economic Integration in South Asia*, Nepal Rastra Bank, Kathmandu.

of Developing countries.

Rao, C Nirajan and Bishawajitdhar (2002), *International Patent System: An Empirical Analysis*, India Habitat Center, New Delhi.

SAA (August 1997) *Basic Principle for managing intellectual property in the digital Environment: An Archival Prospective*, Prepared by the Society of the American Archivists.

Salmon, Paul E. (2005), *A Short guide to international IPR Treaties*, Presented in a Meeting of WIPO and WTO.

Sharma, Rudra (August 2003), Patent Rights Nepalese the Context, Business Age.

Sherestha, Dr. Shyam K and Baral Nirajon (2002), *WTO, South Asia and Nepal*, Book Palace Publication, Kathmandu.

WIPO Magazines

Witz, Silk Paul (1993), *The Patent system, An Instrument of the Technological Policy*

WEBSITES

www.wto.org

www.wipo.int

www.southcenter.org

www.moics.gov.np

www.ictsd.org

www.iprcommission.org

www.patentoffice.nic

ANNEXES

ANNEX-1

AGREEMENT ON TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS

PART V DISPUTE PREVENTION AND SETTLEMENT

PART VI TRANSITIONAL ARRANGEMENTS

PART VII INSTITUTIONAL ARRANGEMENTS; FINAL PROVISIONS

AGREEMENT ON TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS

Members,

Desiring to reduce distortions and impediments to international trade, and taking into account the need to promote effective and adequate protection of intellectual property rights, and to ensure that measures and procedures to enforce intellectual property rights do not themselves become barriers to legitimate trade;

Recognizing, to this end, the need for new rules and disciplines concerning:

(a) the applicability of the basic principles of GATT 1994 and of relevant international intellectual property agreements or conventions;

(b) the provision of adequate standards and principles concerning the availability, scope and use of trade-related intellectual property rights;

(c) the provision of effective and appropriate means for the enforcement of trade-related intellectual property rights, taking into account differences in national legal systems;

(d) the provision of effective and expeditious procedures for the multilateral prevention and settlement of disputes between governments; and

(e) transitional arrangements aiming at the fullest participation in the results of the negotiations;

Recognizing the need for a multilateral framework of principles, rules and disciplines dealing with international trade in counterfeit goods;

Recognizing that intellectual property rights are private rights;

Recognizing the underlying public policy objectives of national systems for the protection of intellectual property, including developmental and technological objectives;

Recognizing also the special needs of the least-developed country Members in respect of maximum flexibility in the domestic implementation of laws and regulations in order to enable them to create a sound and viable technological base;

Emphasizing the importance of reducing tensions by reaching strengthened commitments to resolve disputes on trade-related intellectual property issues through multilateral procedures;

Desiring to establish a mutually supportive relationship between the WTO and the World Intellectual Property Organization (referred to in this Agreement as "WIPO") as well as other relevant international organizations;

Hereby agree as follows:

PART I

GENERAL PROVISIONS AND BASIC PRINCIPLES

Article 1

Nature and Scope of Obligations

1. Members shall give effect to the provisions of this Agreement. Members may, but shall not be obliged to, implement in their law more extensive protection than is required by this Agreement, provided that such protection does not contravene the provisions of this Agreement. Members shall be free to determine the appropriate

method of implementing the provisions of this Agreement within their own legal system and practice.

2. For the purposes of this Agreement, the term "intellectual property" refers to all categories of intellectual property that are the subject of Sections 1 through 7 of Part II.

3. Members shall accord the treatment provided for in this Agreement to the nationals of other Members.[1] In respect of the relevant intellectual property right, the nationals of other Members shall be understood as those natural or legal persons that would meet the criteria for eligibility for protection provided for in the Paris Convention (1967), the Berne Convention (1971), the Rome Convention and the Treaty on Intellectual Property in Respect of Integrated Circuits, were all

Members of the WTO members of those conventions.[2] Any Member availing itself of the

possibilities provided in paragraph 3 of Article 5 or paragraph 2 of Article 6 of the Rome Convention shall make a notification as foreseen in those provisions to the Council for Trade-Related Aspects of Intellectual Property Rights (the "Council for TRIPS").

Article 2

Intellectual Property Conventions

[1] When "nationals" are referred to in this Agreement, they shall be deemed, in the case of a separate customs territory Member of the WTO, to mean persons, natural or legal, who are domiciled or who have a real and effective industrial or commercial establishment in that customs territory.

[2] In this Agreement, "Paris Convention" refers to the Paris Convention for the Protection of Industrial Property; “Paris Convention (1967)" refers to the Stockholm Act of this Convention of 14 July 1967. "Berne Convention" refers to the Berne Convention for the Protection of Literary and Artistic Works; "Berne Convention (1971)" refers to the Paris Act of this Convention of 24 July 1971. "Rome Convention" refers to the International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, adopted at Rome on 26 October 1961. "Treaty on Intellectual Property in Respect of Integrated Circuits" (IPIC Treaty) refers to the Treaty on Intellectual Property in Respect of Integrated Circuits, adopted at Washington on 26 May 1989. "WTO Agreement" refers to the Agreement Establishing the WTO.

1. In respect of Parts II, III and IV of this Agreement, Members shall comply with Articles 1 through 12, and Article 19, of the Paris Convention (1967).

2. Nothing in Parts I to IV of this Agreement shall derogate from existing obligations that Members may have to each other under the Paris Convention, the Berne Convention, the Rome Convention and the Treaty on Intellectual Property in Respect of Integrated Circuits.

Article 3

National Treatment

1. Each Member shall accord to the nationals of other Members treatment no less favourable than that it accords to its own nationals with regard to the protection[3] of intellectual property, subject to the exceptions already provided in, respectively, the Paris Convention (1967), the Berne Convention (1971), the Rome Convention or the Treaty on Intellectual Property in Respect of Integrated Circuits. In respect of performers, producers of phonograms and broadcasting organizations, this obligation only applies in respect of the rights provided under this Agreement. Any Member availing itself of the possibilities provided in Article 6 of the Berne Convention (1971) or paragraph 1(b) of Article 16 of the Rome Convention shall make a notification as foreseen in those provisions to the Council for TRIPS.

2. Members may avail themselves of the exceptions permitted under paragraph 1 in relation to judicial and administrative procedures, including the designation of an address for service or the appointment of an agent within the jurisdiction of a Member, only where such exceptions are necessary to secure compliance with laws and regulations

[3] For the purposes of Articles 3 and 4, "protection" shall include matters affecting the availability, acquisition, scope, maintenance and enforcement of intellectual property rights as well as those matters affecting the use of intellectual property rights specifically addressed in this Agreement.

which are not inconsistent with the provisions of this Agreement and where such practices are not applied in a manner which would constitute a disguised restriction on trade.

Article 4

Most-Favoured-Nation Treatment

With regard to the protection of intellectual property, any advantage, favour, privilege or immunity granted by a Member to the nationals of any other country shall be accorded immediately and unconditionally to the nationals of all other Members. Exempted from this obligation are any advantage, favour, privilege or immunity accorded by a Member:

(a) deriving from international agreements on judicial assistance or law enforcement of a general nature and not particularly confined to the protection of intellectual property;

(b) granted in accordance with the provisions of the Berne Convention (1971) or the Rome Convention authorizing that the treatment accorded be a function not of national treatment but of the treatment accorded in another country;

(c) in respect of the rights of performers, producers of phonograms and broadcasting organizations not provided under this Agreement;

(d) deriving from international agreements related to the protection of intellectual property which entered into force prior to the entry into force of the WTO Agreement, provided that such agreements are notified to the

Council for TRIPS and do not constitute an arbitrary or unjustifiable discrimination against nationals of other Members.

Article 5

Multilateral Agreements on Acquisition or

Maintenance of Protection

The obligations under Articles 3 and 4 do not apply to procedures provided in multilateral agreements concluded under the auspices of WIPO relating to the acquisition or maintenance of intellectual property rights.

Article 6

Exhaustion

For the purposes of dispute settlement under this Agreement, subject to the provisions of Articles 3 and 4 nothing in this Agreement shall be used to address the issue of the exhaustion of intellectual property rights.

Article 7

Objectives

The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

Article 8

Principles

1. Members may, in formulating or amending their laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and technological development, provided that such measures are

consistent with the provisions of this Agreement.

2. Appropriate measures, provided that they are consistent with the provisions of this Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology.

PART II

STANDARDS CONCERNING THE AVAILABILITY, SCOPE AND USE OF INTELLECTUAL PROPERTY RIGHTS

SECTION 1: COPYRIGHT AND RELATED RIGHTS

Article 9

Relation to the Berne Convention

1. Members shall comply with Articles 1 through 21 of the Berne Convention (1971) and the Appendix thereto. However, Members shall not have rights or obligations under this Agreement in respect of the rights conferred under Article 6*bis* of that Convention or of the rights derived therefrom.

2. Copyright protection shall extend to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such.

Article 10

Computer Programs and Compilations of Data

1. Computer programs, whether in source or object code, shall be protected as literary works under the Berne Convention (1971).

2. Compilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations shall be protected as such. Such protection, which shall not extend to the data or material itself, shall be without prejudice to any copyright subsisting in the data or material itself.

Article 11

Rental Rights

In respect of at least computer programs and cinematographic works, a Member shall provide authors and their successors in title the right to authorize or to prohibit the commercial rental to the public of originals or copies of their copyright works. A Member shall be excepted from this obligation in respect of cinematographic works unless such rental has led to widespread copying of

such works which is materially impairing the exclusive right of reproduction conferred in that Member on authors and their successors in title. In respect of computer programs, this obligation does not apply to rentals where the program itself is not the essential object of the rental.

Article 12

Term of Protection

Whenever the term of protection of a work, other than a photographic work or a work of applied art, is calculated on a basis other than the life of a natural person, such term shall be no less than 50 years from the end of the calendar year of authorized

publication, or, failing such authorized publication within 50 years from the making of the work, 50 years from the end of the calendar year of making.

Article 13

Limitations and Exceptions

Members shall confine limitations or exceptions to exclusive rights to certain special cases which do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holder.

Article 14

Protection of Performers, Producers of Phonograms

(Sound Recordings) and Broadcasting Organizations

1. In respect of a fixation of their performance on a phonogram, performers shall have the possibility of preventing the following acts when undertaken without their authorization: the fixation of their unfixed performance and the reproduction of such fixation. Performers shall also have the possibility of preventing the following acts when undertaken without their authorization: the broadcasting by wireless means and the communication to the public of their live performance.

2. Producers of phonograms shall enjoy the right to authorize or prohibit the direct or indirect reproduction of their phonograms.

3. Broadcasting organizations shall have the right to prohibit the following acts when undertaken without their authorization: the fixation, the reproduction of fixations, and the

rebroadcasting by wireless means of broadcasts, as well as the communication to the public of television broadcasts of the same. Where Members do not grant such rights to

broadcasting organizations, they shall provide owners of copyright in the subject matter of broadcasts with the possibility of preventing the above acts, subject to the provisions of the Berne Convention (1971).

4. The provisions of Article 11 in respect of computer programs shall apply *mutatis mutandis* to producers of phonograms and any other right holders in phonograms as determined in a Member's law. If on 15 April 1994 a Member has in force a system of equitable remuneration of right holders in respect of the rental of phonograms, it may maintain such system provided that the commercial rental of phonograms is not giving rise to the material impairment of the exclusive rights of reproduction of right holders.

5. The term of the protection available under this Agreement to performers and producers of phonograms shall last at least until the end of a period of 50 years computed from the end of the calendar year in which the fixation was made or the performance took place. The term of protection granted pursuant to paragraph 3 shall last for at least 20 years from the end of the calendar year in which the broadcast took place.

6. Any Member may, in relation to the rights conferred under paragraphs 1, 2 and 3, provide for conditions, limitations, exceptions and reservations to the extent permitted by the Rome Convention. However, the provisions of Article 18 of the Berne Convention (1971) shall also apply, *mutatis mutandis*, to the rights of performers and producers of phonograms in phonograms.

SECTION 2: TRADEMARKS

Article 15

Protectable Subject Matter

1. Any sign, or any combination of signs, capable of distinguishing the goods or services of one undertaking from those of other undertakings, shall be capable of constituting a trademark.

Such signs, in particular words including personal names, letters, numerals, figurative elements and combinations of colors as well as any combination of such signs, shall be eligible for registration as trademarks. Where signs are not inherently capable of distinguishing the relevant goods or services,

Members may make registrability depend on distinctiveness acquired through use. Members may

require, as a condition of registration, that signs be visually perceptible.

2. Paragraph 1 shall not be understood to prevent a Member from denying registration of a trademark on other grounds, provided that they do not derogate from the provisions of the Paris Convention (1967).

3. Members may make registrability depend on use. However, actual use of a trademark shall not be a condition for filing an application for registration. An application shall not be refused solely on the ground that intended use has not taken place before the expiry of a period of three years from the date of application.

4. The nature of the goods or services to which a trademark is to be applied shall in no case form an obstacle to registration of the trademark.

5. Members shall publish each trademark either before it is registered or promptly after it is registered and shall afford a reasonable opportunity for petitions to cancel the registration. In addition, Members may afford an opportunity for the registration of a trademark to be opposed.

Article 16

Rights Conferred

1. The owner of a registered trademark shall have the exclusive right to prevent all third parties not having the owner's consent from using in the course of trade identical or similar signs for goods or services which are identical or similar to those in respect of which the trademark is registered where such use would result in a likelihood of confusion. In case of the use of an identical sign for identical goods or services, a likelihood of confusion shall be presumed. The rights described above shall not prejudice any existing prior rights, nor shall they affect the possibility of Members making rights available on the basis of use.

2. Article 6*bis* of the Paris Convention (1967) shall apply, *mutatis mutandis*, to services. In determining whether a trademark is well-known, Members shall take account of the knowledge of the trademark in the relevant sector of the public, including knowledge in the Member concerned which has been obtained as a result of the promotion of the trademark.

3. Article 6*bis* of the Paris Convention (1967) shall apply, *mutatis mutandis*, to goods or services which are not similar to those in respect of which a trademark is registered, provided that use of that trademark in relation to those goods or services would indicate a connection between those goods or services and the owner of the registered trademark and provided that the interests of the owner of the registered trademark are likely to be damaged by such use.

Article 17

Exceptions

Members may provide limited exceptions to the rights conferred by a trademark, such as fair use of descriptive terms, provided that such exceptions take account of the legitimate interests of the owner of the trademark and of third parties.

Article 18

Term of Protection

Initial registration, and each renewal of registration, of a trademark shall be for a term of no less than seven years. The registration of a trademark shall be renewable indefinitely.

Article 19

Requirement of Use

1. If use is required to maintain a registration, the registration may be cancelled only after an uninterrupted period of at least three years of non-use, unless valid reasons based on the existence of obstacles to such use are shown by the trademark owner. Circumstances arising independently of the will of the owner of the trademark which constitute an obstacle to the use of the trademark, such as import restrictions on or other government requirements for goods or services protected by the trademark, shall be recognized as valid reasons for non-use.

2. When subject to the control of its owner, use of a trademark by another person shall be recognized as use of the trademark for the purpose of maintaining the registration.

Article 20

Other Requirements

The use of a trademark in the course of trade shall not be unjustifiably encumbered by special requirements, such as use with another trademark, use in a special form or use in a manner detrimental to its capability to distinguish the goods or services of one undertaking from those of other undertakings. This will not preclude a requirement prescribing the use of the trademark identifying the undertaking producing the goods or services along with, but without linking it to, the trademark distinguishing the specific goods or services in question of that undertaking.

Article 21

Licensing and Assignment

Members may determine conditions on the licensing and assignment of trademarks, it being understood that the compulsory licensing of trademarks shall not be permitted and that the owner of a registered trademark shall have the right to assign the trademark with or without the transfer of the business to which the trademark belongs.

SECTION 3: GEOGRAPHICAL INDICATIONS

Article 22

Protection of Geographical Indications

1. Geographical indications are, for the purposes of this Agreement, indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.

2. In respect of geographical indications, Members shall provide the legal means for interested parties to prevent:

(a) the use of any means in the designation or presentation of a good that indicates or suggests that the good in question originates in a geographical area other than the true place of origin in a manner which misleads the public as to the geographical origin of the good;

(b) any use which constitutes an act of unfair competition within the meaning of Article 10*bis* of the Paris Convention (1967).

3. A Member shall, *ex officio* if its legislation so permits or at the request of an interested party, refuse or invalidate the registration of a trademark which contains or consists of a geographical indication with respect to goods not originating in the territory indicated, if use of the indication in the trademark for such goods in that Member is of such a nature as to mislead the public as to the true place of origin.

4. The protection under paragraphs 1, 2 and 3 shall be applicable against a geographical indication which, although literally true as to the territory, region or locality in which the goods originate, falsely represents to the public that the goods originate in another territory.

Article 23

Additional Protection for Geographical Indications

for Wines and Spirits

1. Each Member shall provide the legal means for interested parties to prevent use of a geographical indication identifying wines for wines not originating in the place indicated by the geographical indication in question or identifying spirits for spirits not originating in the place indicated by the geographical indication in question, even where the true origin of the goods is indicated or the geographical indication is used in

translation or accompanied by expressions such as "kind", "type", "style", "imitation" or the like.[4]

2. The registration of a trademark for wines which contains or consists of a geographical indication identifying wines or for spirits which contains or consists of a geographical indication identifying spirits shall be refused or invalidated, *ex officio* if a Member's legislation so permits or at the request of an interested party, with respect to such wines or spirits not having this origin.

3. In the case of homonymous geographical indications for wines, protection shall be accorded to each indication, subject to the provisions of paragraph 4 of Article 22. Each Member shall determine the practical conditions under which the homonymous indications in question will be differentiated from each other, taking into account the need to ensure equitable treatment of the producers concerned and that consumers are not misled.

4. In order to facilitate the protection of geographical indications for wines, negotiations shall be undertaken in the Council for TRIPS concerning the establishment of a multilateral system of notification and registration of geographical indications for wines eligible for protection in those Members participating in the system.

Article 24

International Negotiations; Exceptions

1. Members agree to enter into negotiations aimed at increasing the protection of individual geographical indications under Article 23. The provisions of paragraphs 4 through 8 below shall not be used by a Member to refuse to conduct negotiations or to

[4] Notwithstanding the first sentence of Article 42, Members may, with respect to these obligations, instead provide for enforcement by administrative action.

conclude bilateral or multilateral agreements. In the context of such negotiations, Members shall be willing to consider the continued applicability of these provisions to individual geographical indications whose use was the subject of such negotiations.

2. The Council for TRIPS shall keep under review the application of the provisions of this Section; the first such review shall take place within two years of the entry into force of the WTO Agreement. Any matter affecting the compliance with the obligations under these provisions may be drawn to the attention of the Council, which, at the request of a Member, shall consult with any Member or Members in respect of such matter in respect of which it has not been possible to find a satisfactory solution through bilateral or plurilateral consultations between the Members concerned.

The Council shall take such action as may be agreed to facilitate the operation and further the objectives of this Section.

3. In implementing this Section, a Member shall not diminish the protection of geographical indications that existed in that Member immediately prior to the date of entry into force of the WTO Agreement.

4. Nothing in this Section shall require a Member to prevent continued and similar use of a particular geographical indication of another Member identifying wines or spirits in connection with goods or services by any of its nationals or domiciliaries who have used that geographical indication in a continuous manner with regard to the same or related goods or services in the territory of that Member either (*a*) for at least 10 years preceding 15 April 1994 or (*b*) in good faith preceding that date.

5. Where a trademark has been applied for or registered in good faith, or where rights to a trademark have been acquired through use in good faith either:

(a) before the date of application of these provisions in that Member as defined in Part VI; or

(b) before the geographical indication is protected in its country of origin;

Measures adopted to implement this Section shall not prejudice eligibility for or the validity of the registration of a trademark, or the right to use a trademark, on the basis that such a trademark is identical with, or similar to, a geographical indication.

6. Nothing in this Section shall require a Member to apply its provisions in respect of a geographical indication of any other Member with respect to goods or services for which the relevant indication is identical with the term customary in common language as the common name for such goods or services in the territory of that Member. Nothing in this Section shall require a Member to apply its provisions in respect of a geographical indication of any other Member with respect to products of the vine for which the relevant indication is identical with the customary name of a grape
variety existing in the territory of that Member as of the date of entry into force of the WTO Agreement.

7. A Member may provide that any request made under this Section in connection with the use or registration of a trademark must be presented within five years after the adverse use of the protected indication has become generally known in that Member or after the date of registration of the trademark in that Member provided that the trademark has been published by that date, if such date is earlier than the date on which the adverse use became generally known in that Member, provided that the geographical indication is not used or registered in bad faith.

8. The provisions of this Section shall in no way prejudice the right of any person to use, in the course of trade, that person's name or the name of that person's predecessor in business, except where such name is used in such a manner as to mislead the public.

9. There shall be no obligation under this Agreement to protect geographical indications which are not or cease to be protected in their country of origin, or which have fallen into disuse in that country.

SECTION 4: INDUSTRIAL DESIGNS

Article 25

Requirements for Protection

1. Members shall provide for the protection of independently created industrial designs that are new or original. Members may provide that designs are not new or original if they do not significantly differ from known designs or combinations of known design features. Members may provide that such protection shall not extend to designs dictated essentially by technical or functional considerations.

2. Each Member shall ensure that requirements for securing protection for textile designs, in particular in regard to any cost, examination or publication, do not unreasonably impair the opportunity to seek and obtain such protection. Members shall be free to meet this obligation through industrial design law or through copyright law.

Article 26

Protection

1. The owner of a protected industrial design shall have the right to prevent third parties not having the owner's consent from making, selling or importing articles bearing

or embodying a design which is a copy, or substantially a copy, of the protected design, when such acts are undertaken for commercial purposes.

2. Members may provide limited exceptions to the protection of industrial designs, provided that such exceptions do not unreasonably conflict with the normal exploitation of protected industrial designs and do not unreasonably prejudice the legitimate interests of the owner of the protected design, taking account of the legitimate interests of third parties.

3. The duration of protection available shall amount to at least 10 years.

SECTION 5: PATENTS

Article 27

Patentable Subject Matter

1. Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application.[5] Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced.

2. Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect *ordre public* or morality, including to

[5] For the purposes of this Article, the terms "inventive step" and "capable of industrial application" may be deemed by a Member to be synonymous with the terms "non-obvious" and "useful" respectively.

protect human, animal or plant life or health or to avoid serious prejudice to the environment,

provided that such exclusion is not made merely because the exploitation is prohibited by their law.

3. Members may also exclude from patentability:

(a) diagnostic, therapeutic and surgical methods for the treatment of humans or animals;

(b) plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof. The provisions of this subparagraph shall be reviewed four years after the date of entry into force of the WTO Agreement.

Article 28

Rights Conferred

1. A patent shall confer on its owner the following exclusive rights:

(a) where the subject matter of a patent is a product, to prevent third parties not having the owner's consent from the acts of: making, using, offering for sale, selling, or importing[6] for these purposes that product;

(b) where the subject matter of a patent is a process, to prevent third parties not having the owner's consent from the act of using the process, and from the acts of: using, offering for sale, selling, or

[6] This right, like all other rights conferred under this Agreement in respect of the use, sale, importation or other distribution of goods, is subject to the provisions of Article 6.

importing for these purposes at least the product obtained directly by that process.

2. Patent owners shall also have the right to assign, or transfer by succession, the patent and to conclude licensing contracts.

Article 29

Conditions on Patent Applicants

1. Members shall require that an applicant for a patent shall disclose the invention in a manner

sufficiently clear and complete for the invention to be carried out by a person skilled in the art and may require the applicant to indicate the best mode for carrying out the invention known to the inventor at the filing date or, where priority is claimed, at the priority date of the application.

2. Members may require an applicant for a patent to provide information concerning the applicant's corresponding foreign applications and grants.

Article 30

Exceptions to Rights Conferred

Members may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.

Article 31

Other Use Without Authorization of the Right Holder

Where the law of a Member allows for other use[7] of the subject matter of a patent without the authorization of the right holder, including use by the government or third parties authorized by the government, the following provisions shall be respected:

(a) authorization of such use shall be considered on its individual merits;

(b) such use may only be permitted if, prior to such use, the proposed user has made efforts to obtain authorization from the right holder on reasonable commercial terms and conditions and that such efforts have not been successful within a reasonable period of time. This requirement may be waived by a Member in the case of a national emergency or other circumstances of extreme urgency or in cases of public non-commercial use. In situations of national emergency or other circumstances of extreme urgency, the right holder shall, nevertheless, be notified as soon as reasonably practicable. In the case of public non-commercial use, where the government or contractor, without making a patent search, knows

or has demonstrable grounds to know that a valid patent is or will be used by or for the government,

the right holder shall be informed promptly;

(c) the scope and duration of such use shall be limited to the purpose for which it was authorized, and in the case of semi-conductor technology shall only be for public non-commercial use or to remedy a practice determined after judicial or administrative process to be anti-competitive;

(d) such use shall be non-exclusive;

[7] "Other use" refers to use other than that allowed under Article 30.

(e) such use shall be non-assignable, except with that part of the enterprise or goodwill which enjoys such use;

(f) any such use shall be authorized predominantly for the supply of the domestic market of the Member authorizing such use;

(g) authorization for such use shall be liable, subject to adequate protection of the legitimate interests of the persons so authorized, to be terminated if and when the circumstances which led to it cease to exist and are unlikely to recur. The competent authority shall have the authority to review, upon motivated request, the continued existence of these circumstances;

(h) the right holder shall be paid adequate remuneration in the circumstances of each case, taking into account the economic value of the authorization;

(i) the legal validity of any decision relating to the authorization of such use shall be subject to judicial review or other independent review by a distinct higher authority in that Member;

(j) any decision relating to the remuneration provided in respect of such use shall be subject to judicial review or other independent review by a distinct higher authority in that Member;

(k) Members are not obliged to apply the conditions set forth in subparagraphs (b) and (f) where such use is permitted to remedy a practice determined after judicial or administrative process to be anti-competitive. The need to correct anti-competitive practices may be taken into account in determining the amount of remuneration in such cases. Competent

authorities shall have the authority to refuse termination of authorization if and when the conditions which led to such authorization are likely to recur;

(l) where such use is authorized to permit the exploitation of a patent ("the second patent") which cannot be exploited without infringing another patent ("the first patent"), the following additional conditions shall apply:

(i) the invention claimed in the second patent shall involve an important technical advance of considerable economic significance in relation to the invention claimed in the first patent;

(ii) the owner of the first patent shall be entitled to a cross-licence on reasonable terms to use the invention claimed in the second patent; and

(iii) the use authorized in respect of the first patent shall be non-assignable except

with the assignment of the second patent.

Article 32

Revocation/Forfeiture

An opportunity for judicial review of any decision to revoke or forfeit a patent shall be available.

Article 33

Term of Protection The term of protection available shall not end before the expiration of a period of twenty years counted from the filing date.[8]

[8] It is understood that those Members which do not have a system of original grant may provide that the term of protection shall be computed from the filing date in the system of original grant.

Article 34

Process Patents: Burden of Proof

1. For the purposes of civil proceedings in respect of the infringement of the rights of the owner referred to in paragraph 1(b) of Article 28, if the subject matter of a patent is a process for obtaining a product, the judicial authorities shall have the authority to order the defendant to prove that the process to obtain an identical product is different from the patented process. Therefore, Members shall provide, in at least one of the following circumstances, that any identical product when produced without the consent of the patent owner shall, in the absence of proof to the contrary, be deemed to have been obtained by the patented process:

(a) if the product obtained by the patented process is new;

(b) if there is a substantial likelihood that the identical product was made by the process and the owner of the patent has been unable through reasonable efforts to determine the process actually used.

2. Any Member shall be free to provide that the burden of proof indicated in paragraph 1 shall be on the alleged infringer only if the condition referred to in subparagraph (a) is fulfilled or only if the condition referred to in subparagraph (b) is fulfilled.

3. In the adduction of proof to the contrary, the legitimate interests of defendants in protecting their manufacturing and business secrets shall be taken into account.

SECTION 6: LAYOUT-DESIGNS (TOPOGRAPHIES) OF INTEGRATED CIRCUITS

Article 35

Relation to the IPIC Treaty

Members agree to provide protection to the layout-designs (topographies) of integrated circuits (referred to in this Agreement as "layout-designs") in accordance with Articles 2 through 7 (other than paragraph 3 of Article 6), Article 12 and paragraph 3 of Article 16 of the Treaty on Intellectual Property in Respect of Integrated Circuits and, in addition, to comply with the following provisions.

Article 36

Scope of the Protection

Subject to the provisions of paragraph 1 of Article 37, Members shall consider unlawful the following acts if performed without the authorization of the right holder:[9] importing, selling, or otherwise distributing for commercial purposes a protected layout-design, an integrated circuit in which a protected layout-design is incorporated, or an article incorporating such an integrated circuit only in so far as it continues to contain an unlawfully reproduced layout-design.

Article 37

Acts Not Requiring the Authorization of the Right Holder

1. Notwithstanding Article 36, no Member shall consider unlawful the performance of any of the acts referred to in that Article in respect of an integrated circuit incorporating an unlawfully reproduced layout-design or any article incorporating such an integrated circuit where the person performing or ordering such acts did not know and had no reasonable ground to know, when acquiring the integrated circuit or article incorporating such an integrated circuit, that it incorporated an unlawfully reproduced layout-design. Members shall provide that, after the time that such person has received

[9] The term "right holder" in this Section shall be understood as having the same meaning as the term "holder of the right" in the IPIC Treaty.

sufficient notice that the layout-design was unlawfully reproduced, that person may perform any of the acts with respect to the stock on hand or ordered before such time, but shall be liable to pay to the right holder a sum equivalent to a reasonable royalty such as would be payable under a freely negotiated licence in respect of such a layout-design.

2. The conditions set out in subparagraphs (a) through (k) of Article 31 shall apply *mutatis mutandis* in the event of any non-voluntary licensing of a layout-design or of its use by or for the government without the authorization of the right holder.

Article 38

Term of Protection

1. In Members requiring registration as a condition of protection, the term of protection of layout-designs shall not end before the expiration of a period of 10 years counted from the date of filing an application for registration or from the first commercial exploitation wherever in the world it occurs.

2. In Members not requiring registration as a condition for protection, layout-designs shall be protected for a term of no less than 10 years from the date of the first commercial exploitation wherever in the world it occurs.

3. Notwithstanding paragraphs 1 and 2, a Member may provide that protection shall lapse 15 years after the creation of the layout-design.

SECTION 7: PROTECTION OF UNDISCLOSED INFORMATION

Article 39

1. In the course of ensuring effective protection against unfair competition as provided in Article 10*bis* of the Paris Convention (1967), Members shall protect

undisclosed information in accordance with paragraph 2 and data submitted to governments or governmental agencies in accordance with paragraph 3.

2. Natural and legal persons shall have the possibility of preventing information lawfully within their control from being disclosed to, acquired by, or used by others without their consent in a manner contrary to honest commercial practices[10] so long as such information:

(a) is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question;

(b) has commercial value because it is secret; and

(c) has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.

3. Members, when requiring, as a condition of approving the marketing of pharmaceutical or of agricultural chemical products which utilize new chemical entities, the submission of undisclosed test or other data, the origination of which involves a considerable effort, shall protect such data against unfair commercial use. In addition, Members shall protect such data against disclosure, except where necessary to protect the public, or unless steps are taken to ensure that the data are protected against unfair commercial use.

[10] For the purpose of this provision, "a manner contrary to honest commercial practices" shall mean at least practices such as breach of contract, breach of confidence and inducement to breach, and includes the acquisition of undisclosed information by third parties who knew, or were grossly negligent in failing to know, that such practices were involved in the acquisition.

SECTION 8: CONTROL OF ANTI-COMPETITIVE PRACTICES IN CONTRACTUAL LICENCES

Article 40

1. Members agree that some licensing practices or conditions pertaining to intellectual property rights which restrain competition may have adverse effects on trade and may impede the transfer and dissemination of technology.

2. Nothing in this Agreement shall prevent Members from specifying in their legislation licensing practices or conditions that may in particular cases constitute an abuse of intellectual property rights having an adverse effect on competition in the relevant market. As provided above, a Member may adopt, consistently with the other provisions of this Agreement, appropriate measures to prevent or control such practices, which may include for example exclusive grantback conditions, conditions preventing challenges to validity and coercive package licensing, in the light of the relevant laws and regulations of that Member.

3. Each Member shall enter, upon request, into consultations with any other Member which has cause to believe that an intellectual property right owner that is a national or domiciliary of the Member to which the request for consultations has been addressed is undertaking practices in violation of the requesting Member's laws and regulations on the subject matter of this Section, and which wishes to secure compliance with such legislation, without prejudice to any action under the law and to the full freedom of an ultimate decision of either Member. The Member addressed shall accord full and sympathetic consideration to, and shall afford adequate opportunity for, consultations with the requesting Member, and shall cooperate through supply of publicly available

non-confidential information of relevance to the matter in question and of other information available to the Member, subject to domestic law and to the conclusion of mutually satisfactory agreements concerning the safeguarding of its confidentiality by the requesting Member.

4. A Member whose nationals or domiciliaries are subject to proceedings in another Member concerning alleged violation of that other Member's laws and regulations on the subject matter of this Section shall, upon request, be granted an opportunity for consultations by the other Member under the same conditions as those foreseen in paragraph 3.

PART III

ENFORCEMENT OF INTELLECTUAL PROPERTY RIGHTS

SECTION 1: GENERAL OBLIGATIONS

Article 41

1. Members shall ensure that enforcement procedures as specified in this Part are available under their law so as to permit effective action against any act of infringement of intellectual property rights covered by this Agreement, including expeditious remedies to prevent infringements and remedies which constitute a deterrent to further infringements. These procedures shall be applied in such a manner as to avoid the creation of barriers to legitimate trade and to provide for safeguards against their abuse.

2. Procedures concerning the enforcement of intellectual property rights shall be fair and equitable. They shall not be unnecessarily complicated or costly, or entail unreasonable time-limits or unwarranted delays.

3. Decisions on the merits of a case shall preferably be in writing and reasoned. They shall be made available at least to the parties to the proceeding without undue delay. Decisions on the merits of a case shall be based only on evidence in respect of which parties were offered the opportunity to be heard.

4. Parties to a proceeding shall have an opportunity for review by a judicial authority of final administrative decisions and, subject to jurisdictional provisions in a Member's law concerning the importance of a case, of at least the legal aspects of initial judicial decisions on the merits of a case. However, there shall be no obligation to provide an opportunity for review of acquittals in criminal cases.

5. It is understood that this Part does not create any obligation to put in place a judicial system for the enforcement of intellectual property rights distinct from that for the enforcement of law in general, nor does it affect the capacity of Members to enforce their law in general. Nothing in this Part creates any obligation with respect to the distribution of resources as between enforcement of intellectual property rights and the enforcement of law in general.

SECTION 2: CIVIL AND ADMINISTRATIVE PROCEDURES AND REMEDIES

Article 42

Fair and Equitable Procedures

Members shall make available to right holders[11] civil judicial procedures concerning the enforcement of any intellectual property right covered by this Agreement. Defendants shall have the right to written notice which is timely and contains sufficient detail, including the basis of the claims. Parties shall be allowed to be represented by

[11] For the purpose of this Part, the term "right holder" includes federations and associations having legal standing to assert such rights.

independent legal counsel, and procedures shall not impose overly burdensome requirements concerning mandatory personal appearances. All parties to such procedures shall be duly entitled to substantiate their claims and to present all relevant evidence. The procedure shall provide a means to identify and protect confidential information, unless this would be contrary to existing constitutional requirements.

Article 43

Evidence

1. The judicial authorities shall have the authority, where a party has presented reasonably available evidence sufficient to support its claims and has specified evidence relevant to substantiation of its claims which lies in the control of the opposing party, to order that this evidence be produced by the opposing party, subject in appropriate cases to conditions which ensure the protection of confidential information.

2. In cases in which a party to a proceeding voluntarily and without good reason refuses access to, or otherwise does not provide necessary information within a reasonable period, or significantly impedes a procedure relating to an enforcement action, a Member may accord judicial authorities the authority to make preliminary and final determinations, affirmative or negative, on the basis of the information presented to them, including the complaint or the allegation presented by the party adversely affected by the denial of access to information, subject to providing the parties an opportunity to be heard on the allegations or evidence.

Article 44

Injunctions

1. The judicial authorities shall have the authority to order a party to desist from an infringement, *inter alia* to prevent the entry into the channels of commerce in their jurisdiction of imported goods that involve the infringement of an intellectual property right, immediately after customs clearance of such goods. Members are not obliged to accord such authority in respect of protected subject matter acquired or ordered by a person prior to knowing or having reasonable grounds to know that dealing in such subject matter would entail the infringement of an intellectual property right.

2. Notwithstanding the other provisions of this Part and provided that the provisions of Part II specifically addressing use by governments, or by third parties authorized by a government, without the authorization of the right holder are complied with, Members may limit the remedies available against such use to payment of remuneration in accordance with subparagraph (h) of Article 31. In other cases, the remedies under this Part shall apply or, where these remedies are inconsistent with a Member's law, declaratory judgments and adequate compensation shall be available.

Article 45

Damages

1. The judicial authorities shall have the authority to order the infringer to pay the right holder damages adequate to compensate for the injury the right holder has suffered because of an infringement of that person’s intellectual property right by an infringer who knowingly, or with reasonable grounds to know, engaged in infringing activity.

2. The judicial authorities shall also have the authority to order the infringer to pay the right holder expenses, which may include appropriate attorney's fees. In appropriate cases, Members may authorize the judicial authorities to order recovery of profits and/or

payment of pre-established damages even where the infringer did not knowingly, or with reasonable grsounds to know, engage in infringing activity.

Article 46

Other Remedies

In order to create an effective deterrent to infringement, the judicial authorities shall have the authority to order that goods that they have found to be infringing be, without compensation of any sort, disposed of outside the channels of commerce in such a manner as to avoid any harm caused to the right holder, or, unless this would be contrary to existing constitutional requirements, destroyed. The judicial authorities shall also have the authority to order that materials and implements the predominant use of which has been in the creation of the infringing goods be, without compensation of any sort, disposed of outside the channels of commerce in such a manner as to minimize the risks of further infringements. In considering such requests, the need for proportionality between the seriousness of the infringement and the remedies ordered as well as the interests of third parties shall be taken into account. In regard to counterfeit trademark goods, the simple removal of the trademark unlawfully affixed shall not be sufficient, other than in exceptional cases, to permit release of the goods into the channels of commerce.

Article 47

Right of Information

Members may provide that the judicial authorities shall have the authority, unless this would be out of proportion to the seriousness of the infringement, to order the infringer to inform the right holder of the identity of third persons involved in the

production and distribution of the infringing goods or services and of their channels of distribution.

Article 48

Indemnification of the Defendant

1. The judicial authorities shall have the authority to order a party at whose request measures were taken and who has abused enforcement procedures to provide to a party wrongfully enjoined or restrained adequate compensation for the injury suffered because of such abuse. The judicial authorities shall also have the authority to order the applicant to pay the defendant expenses, which may include appropriate attorney's fees.

2. In respect of the administration of any law pertaining to the protection or enforcement of intellectual property rights, Members shall only exempt both public authorities and officials from liability to appropriate remedial measures where actions are taken or intended in good faith in the course of the administration of that law.

Article 49

Administrative Procedures

To the extent that any civil remedy can be ordered as a result of administrative procedures on the merits of a case, such procedures shall conform to principles equivalent in substance to those set forth in this Section.

SECTION 3: PROVISIONAL MEASURES

Article 50

1. The judicial authorities shall have the authority to order prompt and effective provisional measures:

(a) to prevent an infringement of any intellectual property right from occurring, and in particular to prevent the entry into the channels of commerce in their jurisdiction of goods, including imported goods immediately after customs clearance;

(b) to preserve relevant evidence in regard to the alleged infringement.

2. The judicial authorities shall have the authority to adopt provisional measures *inaudita altera parte* where appropriate, in particular where any delay is likely to cause irreparable harm to the right holder, or where there is a demonstrable risk of evidence being destroyed.

3. The judicial authorities shall have the authority to require the applicant to provide any reasonably available evidence in order to satisfy themselves with a sufficient degree of certainty that the applicant is the right holder and that the applicant's right is being infringed or that such infringement is imminent, and to order the applicant to provide a security or equivalent assurance sufficient to protect the defendant and to prevent abuse.

4. Where provisional measures have been adopted *inaudita altera parte*, the parties affected shall be given notice, without delay after the execution of the measures at the latest. A review, including a right to be heard, shall take place upon request of the defendant with a view to deciding, within a reasonable period after the notification of the measures, whether these measures shall be modified, revoked or confirmed.

5. The applicant may be required to supply other information necessary for the identification of the goods concerned by the authority that will execute the provisional measures.

6. Without prejudice to paragraph 4, provisional measures taken on the basis of paragraphs 1 and 2 shall, upon request by the defendant, be revoked or otherwise cease to have effect, if proceedings leading to a decision on the merits of the case are not initiated within a reasonable period,

to be determined by the judicial authority ordering the measures where a Member's law so permits or, in the absence of such a determination, not to exceed 20 working days or 31 calendar days, whichever is the longer.

7. Where the provisional measures are revoked or where they lapse due to any act or omission by the applicant, or where it is subsequently found that there has been no infringement or threat of infringement of an intellectual property right, the judicial authorities shall have the authority to order the applicant, upon request of the defendant, to provide the defendant appropriate compensation for any injury caused by these measures.

8. To the extent that any provisional measure can be ordered as a result of administrative procedures, such procedures shall conform to principles equivalent in substance to those set forth in this Section.

SECTION 4: SPECIAL REQUIREMENTS RELATED TO BORDER MEASURES[12]

Article 51

Suspension of Release by Customs Authorities

Members shall, in conformity with the provisions set out below, adopt procedures[13] to enable a right holder, who has valid grounds for suspecting that the

[12] Where a Member has dismantled substantially all controls over movement of goods across its border with another Member with which it forms part of a customs union, it shall not be required to apply the provisions of this Section at that border.

importation of counterfeit trademark or pirated copyright goods[14] may take place, to lodge an application in writing with competent authorities, administrative or judicial, for the suspension by the customs authorities of the release into free circulation of such goods. Members may enable such an application to be made in respect of goods which involve other infringements of intellectual property rights, provided that the requirements of this Section are met. Members may also provide for corresponding procedures concerning the suspension by the customs authorities of the release of infringing goods destined for exportation from their territories.

Article 52

Application

Any right holder initiating the procedures under Article 51 shall be required to provide adequate evidence to satisfy the competent authorities that, under the laws of the country of importation, there is *prima facie* an infringement of the right holder's intellectual property right and to supply a sufficiently detailed description of the goods to make them readily recognizable by the customs authorities. The competent authorities shall inform the applicant within a reasonable period whether they have accepted the application and, where determined by the competent authorities, the period for which the customs authorities will take action.

---

[13] It is understood that there shall be no obligation to apply such procedures to imports of goods put on the market in another country by or with the consent of the right holder, or to goods in transit.

[14] For the purposes of this Agreement:

(a) "counterfeit trademark goods" shall mean any goods, including packaging, bearing without authorization a trademark which is identical to the trademark validly registered in respect of such goods, or which cannot be distinguished in its essential aspects from such a trademark, and which thereby infringes the rights of the owner of the trademark in question under the law of the country of importation;

(b) "pirated copyright goods" shall mean any goods which are copies made without the consent of the right holder or person duly authorized by the right holder in the country of production and which are made directly or indirectly from an article where the making of that copy would have constituted an infringement of a copyright or a related right under the law of the country of importation.

Article 53

Security or Equivalent Assurance

1. The competent authorities shall have the authority to require an applicant to provide a security or equivalent assurance sufficient to protect the defendant and the competent authorities and to prevent abuse. Such security or equivalent assurance shall not unreasonably deter recourse to these procedures.

2. Where pursuant to an application under this Section the release of goods involving industrial designs, patents, layout-designs or undisclosed information into free circulation has been suspended by customs authorities on the basis of a decision other than by a judicial or other independent authority, and the period provided for in Article 55 has expired without the granting of provisional relief by the duly empowered authority, and provided that all other conditions for importation have

been complied with, the owner, importer, or consignee of such goods shall be entitled to their release on the posting of a security in an amount sufficient to protect the right holder for any infringement. Payment of such security shall not prejudice any other remedy available to the right holder, it being understood that the security shall be released if the right holder fails to pursue the right of action within a reasonable period of time.

Article 54

Notice of Suspension

The importer and the applicant shall be promptly notified of the suspension of the release of goods according to Article 51.

Article 55

Duration of Suspension

If, within a period not exceeding 10 working days after the applicant has been served notice of the suspension, the customs authorities have not been informed that proceedings leading to a decision on the merits of the case have been initiated by a party other than the defendant, or that the duly empowered authority has taken provisional measures prolonging the suspension of the release of the goods, the goods shall be released, provided that all other conditions for importation or exportation have been complied with; in appropriate cases, this time-limit may be extended by another 10 working days. If proceedings leading to a decision on the merits of the case have been initiated, a review, including a right to be heard, shall take place upon request of the defendant with a view to deciding, within a reasonable period, whether these measures shall be modified, revoked or confirmed. Notwithstanding the above, where the suspension of the release of goods is carried out or continued in accordance with a provisional judicial measure, the provisions of paragraph 6 of Article 50 shall apply.

Article 56

Indemnification of the Importer and of the Owner of the Goods

Relevant authorities shall have the authority to order the applicant to pay the importer, the consignee and the owner of the goods appropriate compensation for any injury caused to them through the wrongful detention of goods or through the detention of goods released pursuant to Article 55.

Article 57

Right of Inspection and Information

Without prejudice to the protection of confidential information, Members shall provide the competent authorities the authority to give the right holder sufficient

opportunity to have any goods detained by the customs authorities inspected in order to substantiate the right holder's claims. The competent authorities shall also have authority to give the importer an equivalent opportunity to have any such goods inspected. Where a positive determination has been made on the merits of a case, Members may provide the competent authorities the authority to inform the right holder of the names and addresses of the consignor, the importer and the consignee and of the quantity of the goods in question.

Article 58

Ex Officio Action

Where Members require competent authorities to act upon their own initiative and to suspend the release of goods in respect of which they have acquired *prima facie* evidence that an intellectual property right is being infringed:

(a) the competent authorities may at any time seek from the right holder any information that may assist them to exercise these powers;

(b) the importer and the right holder shall be promptly notified of the suspension. Where the importer has lodged an appeal against the suspension with the competent authorities, the suspension shall be subject to the conditions, *mutatis mutandis*, set out at Article 55;

(c) Members shall only exempt both public authorities and officials from liability to appropriate remedial measures where actions are taken or intended in good faith.

Article 59

Remedies

Without prejudice to other rights of action open to the right holder and subject to the right of the defendant to seek review by a judicial authority, competent authorities shall have the authority to order the destruction or disposal of infringing goods in accordance with the principles set out in Article 46. In regard to counterfeit trademark goods, the authorities shall not allow the re-exportation of the infringing goods in an unaltered state or subject them to a different customs procedure, other than in exceptional circumstances.

Article 60

De Minimis Imports

Members may exclude from the application of the above provisions small quantities of goods of a non-commercial nature contained in travellers' personal luggage or sent in small consignments.

SECTION 5: CRIMINAL PROCEDURES

Article 61

Members shall provide for criminal procedures and penalties to be applied at least in cases of wilful trademark counterfeiting or copyright piracy on a commercial scale. Remedies available shall include imprisonment and/or monetary fines sufficient to provide a deterrent, consistently with the level of penalties applied for crimes of a corresponding gravity. In appropriate cases, remedies available shall also include the seizure, forfeiture and destruction of the infringing goods and of any materials and implements the predominant use of which has been in the commission of the offence. Members may provide for criminal procedures and penalties to be applied in other cases

of infringement of intellectual property rights, in particular where they are committed wilfully and on a commercial scale.

PART IV

ACQUISITION AND MAINTENANCE OF INTELLECTUAL PROPERTY RIGHTS AND RELATED *INTER-PARTES* PROCEDURES

Article 62

1. Members may require, as a condition of the acquisition or maintenance of the intellectual property rights provided for under Sections 2 through 6 of Part II, compliance with reasonable procedures and formalities. Such procedures and formalities shall be consistent with the provisions of this Agreement.

2. Where the acquisition of an intellectual property right is subject to the right being granted or registered, Members shall ensure that the procedures for grant or registration, subject to compliance with the substantive conditions for acquisition of the right, permit the granting or registration of the right within a reasonable period of time so as to avoid unwarranted curtailment of the period of protection.

3. Article 4 of the Paris Convention (1967) shall apply *mutatis mutandis* to service marks.

4. Procedures concerning the acquisition or maintenance of intellectual property rights and, where a Member's law provides for such procedures, administrative revocation and *inter partes* procedures such as opposition, revocation and cancellation, shall be governed by the general principles set out in paragraphs 2 and 3 of Article 41.

5. Final administrative decisions in any of the procedures referred to under paragraph 4 shall be subject to review by a judicial or quasi-judicial authority. However,

there shall be no obligation to provide an opportunity for such review of decisions in cases of unsuccessful opposition or administrative revocation, provided that the grounds for such procedures can be the subject of invalidation procedures.

PART V

DISPUTE PREVENTION AND SETTLEMENT

Article 63

Transparency

1. Laws and regulations, and final judicial decisions and administrative rulings of general application, made effective by a Member pertaining to the subject matter of this Agreement (the availability, scope, acquisition, enforcement and prevention of the abuse of intellectual property rights) shall be published, or where such publication is not practicable made publicly available, in a national language, in such a manner as to enable governments and right holders to become acquainted with them. Agreements concerning the subject matter of this Agreement which are in force between the government or a governmental agency of a Member and the government or a governmental agency of another Member shall also be published.

2. Members shall notify the laws and regulations referred to in paragraph 1 to the Council for TRIPS in order to assist that Council in its review of the operation of this Agreement. The Council shall attempt to minimize the burden on Members in carrying out this obligation and may decide to waive the obligation to notify such laws and regulations directly to the Council if consultations with WIPO on the establishment of a common register containing these laws and regulations are successful. The Council shall

also consider in this connection any action required regarding notifications pursuant to the obligations under this Agreement stemming from the provisions of Article 6*ter* of the Paris Convention (1967).

3. Each Member shall be prepared to supply, in response to a written request from another Member, information of the sort referred to in paragraph 1. A Member, having reason to believe that a specific judicial decision or administrative ruling or bilateral agreement in the area of intellectual property rights affects its rights under this Agreement, may also request in writing to be given access to or be informed in sufficient detail of such specific judicial decisions or administrative rulings or bilateral agreements.

4. Nothing in paragraphs 1, 2 and 3 shall require Members to disclose confidential information which would impede law enforcement or otherwise be contrary to the public interest or would prejudice the legitimate commercial interests of particular enterprises, public or private.

Article 64

Dispute Settlement

1. The provisions of Articles XXII and XXIII of GATT 1994 as elaborated and applied by the Dispute Settlement Understanding shall apply to consultations and the settlement of disputes under this Agreement except as otherwise specifically provided herein.

2. Subparagraphs 1(b) and 1(c) of Article XXIII of GATT 1994 shall not apply to the settlement of disputes under this Agreement for a period of five years from the date of entry into force of the WTO Agreement.

3. During the time period referred to in paragraph 2, the Council for TRIPS shall examine the scope and modalities for complaints of the type provided for under subparagraphs 1(b) and 1(c) of Article XXIII of GATT 1994 made pursuant to this Agreement, and submit its recommendations to the Ministerial Conference for approval. Any decision of the Ministerial Conference to approve such recommendations or to extend the period in paragraph 2 shall be made only by consensus, and approved recommendations shall be effective for all Members without further formal acceptance process.

PART VI

TRANSITIONAL ARRANGEMENTS

Article 65

Transitional Arrangements

1. Subject to the provisions of paragraphs 2, 3 and 4, no Member shall be obliged to apply the provisions of this Agreement before the expiry of a general period of one year following the date of entry into force of the WTO Agreement.

2. A developing country Member is entitled to delay for a further period of four years the date of

application, as defined in paragraph 1, of the provisions of this Agreement other than Articles 3, 4 and 5.

3. Any other Member which is in the process of transformation from a centrally-planned into a market, free-enterprise economy and which is undertaking structural reform of its intellectual property system and facing special problems in the preparation

and implementation of intellectual property laws and regulations, may also benefit from a period of delay as foreseen in paragraph 2.

4. To the extent that a developing country Member is obliged by this Agreement to extend product patent protection to areas of technology not so protectable in its territory on the general date of application of this Agreement for that Member, as defined in paragraph 2, it may delay the application of the provisions on product patents of Section 5 of Part II to such areas of technology for an additional period of five years.

5. A Member availing itself of a transitional period under paragraphs 1, 2, 3 or 4 shall ensure that any changes in its laws, regulations and practice made during that period do not result in a lesser degree of consistency with the provisions of this Agreement.

Article 66

Least-Developed Country Members

1. In view of the special needs and requirements of least-developed country Members, their economic, financial and administrative constraints, and their need for flexibility to create a viable technological base, such Members shall not be required to apply the provisions of this Agreement, other than Articles 3, 4 and 5, for a period of 10 years from the date of application as defined under paragraph 1 of Article 65. The Council for TRIPS shall, upon duly motivated request by a least-developed country Member, accord extensions of this period.

2. Developed country Members shall provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to least-developed country Members in order to enable them to create a sound and viable technological base.

Article 67

Technical Cooperation

In order to facilitate the implementation of this Agreement, developed country Members shall provide, on request and on mutually agreed terms and conditions, technical and financial cooperation in favour of developing and least-developed country Members. Such cooperation shall include assistance in the preparation of laws and regulations on the protection and enforcement of intellectual property rights as well as on the prevention of their abuse, and shall include support regarding the establishment or reinforcement of domestic offices and agencies relevant to these matters, including the training of personnel.

PART VII

INSTITUTIONAL ARRANGEMENTS; FINAL PROVISIONS

Article 68

Council for Trade-Related Aspects of Intellectual Property Rights

The Council for TRIPS shall monitor the operation of this Agreement and, in particular, Members' compliance with their obligations hereunder, and shall afford Members the opportunity of consulting on matters relating to the trade-related aspects of intellectual property rights. It shall carry out such other responsibilities as assigned to it by the Members, and it shall, in particular, provide any assistance requested by them in the context of dispute settlement procedures. In carrying out its functions, the Council for TRIPS may consult with and seek information from any source it deems appropriate.

In consultation with WIPO, the Council shall seek to establish, within one year of its first meeting, appropriate arrangements for cooperation with bodies of that Organization.

Article 69

International Cooperation

Members agree to cooperate with each other with a view to eliminating international trade in goods infringing intellectual property rights. For this purpose, they shall establish and notify contact points in their administrations and be ready to exchange information on trade in infringing goods. They shall, in particular, promote the exchange of information and cooperation between customs authorities with regard to trade in counterfeit trademark goods and pirated copyright goods.

Article 70

Protection of Existing Subject Matter

1. This Agreement does not give rise to obligations in respect of acts which occurred before the date of application of the Agreement for the Member in question.

2. Except as otherwise provided for in this Agreement, this Agreement gives rise to obligations in respect of all subject matter existing at the date of application of this Agreement for the Member in question, and which is protected in that Member on the said date, or which meets or comes subsequently to meet the criteria for protection under the terms of this Agreement. In respect of this paragraph and paragraphs 3 and 4, copyright obligations with respect to existing works shall be solely determined under Article 18 of the Berne Convention (1971), and obligations with respect to the rights of producers of phonograms and performers in existing phonograms shall be determined

solely under Article 18 of the Berne Convention (1971) as made applicable under paragraph 6 of Article 14 of this Agreement.

3. There shall be no obligation to restore protection to subject matter which on the date of application of this Agreement for the Member in question has fallen into the public domain.

4. In respect of any acts in respect of specific objects embodying protected subject matter which become infringing under the terms of legislation in conformity with this Agreement, and which were commenced, or in respect of which a significant investment was made, before the date of acceptance of the WTO Agreement by that Member, any Member may provide for a limitation of the remedies available to the right holder as to the continued performance of such acts after the date of application of this Agreement for that Member. In such cases the Member shall, however, at least provide for the payment of equitable remuneration.

5. A Member is not obliged to apply the provisions of Article 11 and of paragraph 4 of Article 14 with respect to originals or copies purchased prior to the date of application of this

Agreement for that Member.

6. Members shall not be required to apply Article 31, or the requirement in paragraph 1 of Article 27 that patent rights shall be enjoyable without discrimination as to the field of technology, to use without the authorization of the right holder where authorization for such use was granted by the government before the date this Agreement became known.

7. In the case of intellectual property rights for which protection is conditional upon registration, applications for protection which are pending on the date of application of this Agreement for the Member in question shall be permitted to be amended to claim any enhanced protection provided under the provisions of this Agreement. Such amendments shall not include new matter.

8. Where a Member does not make available as of the date of entry into force of the WTO Agreement patent protection for pharmaceutical and agricultural chemical products commensurate with its obligations under Article 27, that Member shall:

(a) notwithstanding the provisions of Part VI, provide as from the date of entry into force of the WTO Agreement a means by which applications for patents for such inventions can be filed;

(b) apply to these applications, as of the date of application of this Agreement, the criteria for patentability as laid down in this Agreement as if those criteria were being applied on the date of filing in that Member or, where priority is available and claimed, the priority date of the application; and

(c) provide patent protection in accordance with this Agreement as from the grant of the patent and for the remainder of the patent term, counted from the filing date in accordance with Article 33 of this Agreement, for those of these applications that meet the criteria for protection referred to in subparagraph (b).

9. Where a product is the subject of a patent application in a Member in accordance with paragraph 8(a), exclusive marketing rights shall be granted, notwithstanding the

provisions of Part VI, for a period of five years after obtaining marketing approval in that Member or until a product patent is granted or rejected in that Member, whichever period is shorter, provided that, subsequent to the entry into force of the WTO Agreement, a patent application has been filed and a patent granted for that product in another Member and marketing approval obtained in such other Member.

Article 71

Review and Amendment

1. The Council for TRIPS shall review the implementation of this Agreement after the expiration of the transitional period referred to in paragraph 2 of Article 65. The Council shall, having regard to the experience gained in its implementation, review it two years after that date, and at identical intervals thereafter. The Council may also undertake reviews in the light of any relevant new developments which might warrant modification or amendment of this Agreement.

2. Amendments merely serving the purpose of adjusting to higher levels of protection of intellectual property rights achieved, and in force, in other multilateral agreements and accepted under those agreements by all Members of the WTO may be referred to the Ministerial Conference for action in accordance with paragraph 6 of Article X of the WTO Agreement on the basis of a consensus proposal from the Council for TRIPS.

Article 72

Reservations

Reservations may not be entered in respect of any of the provisions of this Agreement without the consent of the other Members.

Article 73

Security Exceptions

Nothing in this Agreement shall be construed:

(a) to require a Member to furnish any information the disclosure of which it considers contrary to its essential security interests; or

(b) to prevent a Member from taking any action which it considers necessary for the protection of its essential security interests;

(i) relating to fissionable materials or the materials from which they are derived;

(ii) relating to the traffic in arms, ammunition and implements of war and to such traffic in other goods and materials as is carried on directly or indirectly for the purpose of supplying a military establishment;

(iii) taken in time of war or other emergency in international relations; or

(c) to prevent a Member from taking any action in pursuance of its obligations under the United Nations Charter for the maintenance of international peace and security.

ANNEX – 2

The International Applications under the PCT

The PCT was concluded in 1970, amended in 1979 and further modified in 1984. it is open to all states party to the Paris convention for the protection of industrial property (1883). The treaty makes it possible to seek patent protection for an invention simultaneously in each of a large number of countries by filing an "international" patent application. Such an application may be filed by anyone who is a national or resident of a contracting state. It may generally be filed with the national patent office of the contracting state of which the applicant is a national or resident, at the applicant's option, with the international bureau of WIPO in Geneva. If the applicant is a national or resident of contracting state which is party to the European patent convention, the Harare Protocol on patents and industrial designs (Harare Protocal) or the Eurasian Patent Convention, the international application may also be filed with the European patent office (EPO), the African Regional Industrial Property Organization (ARIPO) or the Eurasian Patent Office (EAPO), respectively.

The treaty regulates in detail the formal requirements that any international application must comply with.

Among all the contracting States, the applicant indicates those in which he wishes his international application to have effect ("designated states"). The effect of the international application in each designated state is the same as if a national patent application had been filed with the national patent office of that state. Where a designated state is party to the EPO, the applicant may, and in the case of Belgium, Cyprus, France,

Greece, Ireland, Italy, Monaco and the Netherlands, must opt for the effect of European (rather than a national) patent application. where a designated state is party to the EAPO, the applicant may opt for the effect of a Eurasian(rather than national) patent. Where a designated state is party to the Harare protocol, the applicant may, and in the case of Switzerland, must opt for the effect of an ARIPO (rather than a national) patent application. Where a designated state is a member of the African Intellectual Property Organization (OAPI), the effect is that of a regional application field with OAPI.

The International application is then subjected to what is called an "international search is carried out by one of the major patent offices. The Said search results in an" international search report", that is , a listing of the citations of such published documents that might affect the patentability of the invention claimed in the international application.

The international search report is communicated to the applicant who may decide to withdraw his application, in particular, where the said report makes the granting of a patent unlikely.

If the international application is not withdrawn, it is, together with the international search report, published by the international Bureau and communicated to each designated office.

If the applicant decides tom continue with the international application with a view to obtaining national (or regional) patents, he can wait until the end of the 20th month after the filing of the international application claims the priority of an earlier application, until the end of the 20th month after the filing of that earlier application, to commence the national procedure before each designated office by furnishing a translation (where necessary) of the application into the official language of that office and paying to it the

usual fees. This 20- month period is extended by a further 10 months where the applicant chooses to ask for an " International Preliminary examination report", a report which is prepared by one of the major patent offices mentioned above and which gives a preliminary and non binding opinion on the patentability of the claimed invention. The applicant is entitled to amend the international application during the international preliminary examination. The international preliminary examination report shall not contain any statement on the question whether the claimed invention is or seems to be patentable or unpatentable according to any national law. It shall state, subject to the provisions of paragraph 3, in relation to each claim, whether the claim appears to satisfy the criteria of novelty, inventive step (non obviousness), and industrial applicability, as defined for the purpose of the international preliminary examination in article 33(1) to 4.

ANNEX-3

WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO)

WIPO was established by a convention of 1 july 1967, which entered into

Force in 1970. it has been a specialized agency of the United Nations since 1974. administers a number of international union or treaties in the area of intellectual property, such as the Paris and Berne conventions. WIPO'S objectives are to promoted intellectual protections throughout the world through corporation among states and, where appropriate, in collaboration.

WIPO also aims to encourage administrative co-operation among the intellectual property unions created by the Patris and Berne conventions and sub-treaties concluded by the members to comply with the substantive obligators of the main convention of WIPO – the Paris convention on industrial property and the Berne convention on Copyright(in their mood recent versions).

With regard to Co-operation on intellectual property issues their has been an agreement between WIPO and WTO , which came into force on 1 January 1996 the agreement provides co-operation in their main areas: notification of, access to and translation of national laws and regulations: implementation of procedures for the protection of National emblems: and technical co-operation.(www.wto.org) the WIPO intergovernmental committee (IGE) dealt with the range of issues concerning the interplay between Intellectual property and genetic resources. The work of the ICG covers their main areas: plant protection of genetic resources through measures, which prevent the grant of patents over genetic resources that do not fulfill the requirements of novelty and non-obviousness.

Intellectual property aspects of access to genetic resource and equitable benefits sharing arrangements that govern the use of genetic resources.

Disclosure requirements in patent applications that relation to genetic resources and associated TK used in a claimed invention (www.wipo.int)

Similarly, WIPO also provides a forum for international policy debate and development of legal mechanisms and practical tools concerning the protection of TK and traditional cultural expression (folklore) against misappropriation and misuse, and the intellectual property aspect of ABS in genetic resources (www.wipo.int).

Source: SAWTEE. 2006, Access, benefit sharing and prior informed consent legal Mechanisms in south Asia research report vii+50. Katmandu: