Chapter VII
Conclusion and Suggestions

Since the Uruguay Round Negotiations started in 1986, the patents and intellectual property rights have been a topic of hot debate among the intelligentsia all over the world in one context or other. Sometimes it has developed the dimension of North–South conflict and some see it as re-colonization through economic imperialism. The controversy is not regarding the existence of the patent laws. The sphere of confrontation revolves around the harmonization of patent laws and that too based on the model which the industrialized countries of the north are already practicing. The way TRIPs Agreement had been incorporated in the Trade Negotiation and despite stiff resistance from comparatively weaker countries leaves certain apprehensions in the mind of thinkers because it was only the First World that pressurized the inclusion of the TRIPs Agreement in WTO. Whereas the question of patents is concerned, the rationale behind granting patent to an invention can be traced to the community of interests between society and the inventor. Certainly, patents are an incentive for innovator who undertakes innovation by having large input of expenditure and time in doing his research and development (R&D). The basic thrust of patent is that the patent right is granted in exchange to the making the scientific idea public. Society at large prefers that patents be issued for a limited period and monopoly granted in proportion to the benefit brought by the inventor. Thus it can be concluded that unless there are some sort of monopolistic protection for the invention the inventor will not make his invention public and ultimately die with him as a trade secret. Nobody will take interest in the development of new technologies without protection in the form of patents rights. Therefore the national governments have recognized this right way back in 15th century.

It is also clear from the study that the individual country had recognized these rights at different stages and enacted patent laws conducive to its national economy. The countries which have now tag of developed countries or industrialized countries and have the supremacy of technology, had resorted to the stricter patent regime only after becoming self reliant in technology development. Once they consider their selves the pioneers of technology and masters of markets, they have become ambitious to explore the world market and the best way to achieve their target was to first debar the technology followers from competing and then reign the economic imperialism.
The first world had apprehended a strong and stiff competition from the third world countries as these countries had mastered the technology of the north by reverse engineering or imitation as third world countries had comparatively less stricter patent regime. The recession, monopolies and market had been the reason behind thought of these developed countries to get stricter patent regime throughout the world and regain their supremacy in technological sector and rule the economic world. The Countries like India, China, South Korea and some Asian countries along with some Latin American countries has posed great threat for the Developed World. These countries have a vast market and developed world smelling that the days of their hegemony are numbered as manufacturing capacity and exports of these countries began to flourish and catch up with those of developed world. The developing countries are being the victims of conspiracy of the developed world for past two or three decades. The most of the developing countries had to rebuild their economies and their reliance on International Financial institutions namely IMF and WB had forced them to accept the conditionalities of the developed world as they dominate the working of these International Financial Institutions. The Structural Adjustment Policies of these institutions were applied to these developing countries and slowly the protectionist barriers were removed. Now stricter patent regime has been advocated through TRIPs to strengthen their hegemony over the third world market. The stricter patent regime makes philosophy of patents different as it was rationalized at the start. Instead of making it a tool of industrial development the knowledge is commoditized and had become a tool of expansion for the market capitalization. The uniform norm of patent laws serves the interest of the industrialized worlds the most and the countries still lacking behind in industrialization have nothing to gain from stricter and uniform norms of patent laws at international level.

The efforts to harmonize the patent laws at international efforts had started in 1883 with advent of the Paris Convention. WIPO as a specialized agency of UN established in 1974 was also looking international intellectual property laws and holding conferences regarding development of the IP laws. But the trio of US, EU and Japan were determined to have patent regime at international level at par with the laws they had and that too with sanctions for which the dispute settlement mechanism was also to be made effective. The multinational giants of the north were not satisfied with the working of the WIPO and had been pressurizing their respective governments for past three decades to harmonize the patent laws and US model of IP laws to be applicable at international level.

In fact, they succeeded when The Eighth Round of Negotiation launched in 1986 at Punta del Este (Uruguay) sought to extend the GATT trade regime to new sectors such as GATS,
TRIMs, and TRIPs. This Round took eight years to finalize the agenda as there was strong resistance from developing countries like India, Brazil and Argentina etc. in midst of talks. Majority of the developing countries including India had succumbed to the pressure and design of the industrialized world in early part of 90s when Dunkel Draft Text was presented as a package deal. The fear of being isolated in international trade and structural adjustment programmes with the aid of international financial institutions IMF and World Bank and their dictates were mainly responsible for these countries to bow to the pressure. The developing countries could not bargain at the Uruguay Round to the extent they should have. The Northern countries managed to satisfy the developing countries through some relaxation in textile sector and through exerting pressure succeeded to apply their design upon all the member countries. Had there been option to opt the Agreements according to individual countries suitability, majority countries had not agreed for the harmonization of the patent laws and thereby not consented for TRIPs. The signing of the GATT in 1994 at Marrakesh in Morocco culminated in the establishment of the World Trade Organization (WTO) and the ratification of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). WTO came into existence on 1-1-1995 and the TRIPS Agreement provided for the transitional period of one year to all member countries. The additional four year transitional period was given to the developing countries and the countries who were not giving product patent in food, drugs and chemical sectors were allocated additional five years to comply the provisions of the TRIPs Agreement in their domestic patent laws. The Doha Round of Ministerial Conference extended the transitional period for LDCs up to 2016.

The earlier efforts to harmonize intellectual property through different Conventions such as Paris, Berne and Rome were all combined in the TRIPs. The TRIPs agreement sets minimum norms for the member countries which have to be adopted in the national patent laws. It includes widening of scope, long duration of twenty years, provision for compulsory licenses but with stricter scrutiny and making imports provisions at par with the working of the patent in the host country. The developing countries at the earlier stages of their development has not yet resorted to the strong patent regime and by virtue of being signatories to the WTO now had to comply the provisions of TRIPs and make certain amendments to national laws. The basic task before these developing countries including India was to make the national patent law compatible with the TRIPs and on the other hand to maneuver the flexibilities of TRIPs to safeguard their core developmental objectives. The general rule that the TRIPs provides is that all the inventions are patentable but leaves many key concept undefined. The term invention, non obviousness, industrial applicability, biological and non biological and
microbiological processes etc has not been clearly defined and the different countries had interpreted these terms in the past according to their own norms. The terms are ambiguous and leave certain scope for the member countries to interpret these terms according to its own suitability. The widening of scope of patentability causes concern for the developing countries. The developed world has reached at certain level of development of technological sector from where it can dictate the terms. The scientists in these countries are now concerned to patent each and every branch of technology without caring for its repercussions. They had even exploited the genome sector and cloning and on the basis of morality majority of the countries are not inclined towards these technologies.

The advent of TRIPs agreement opened a new era in the history of patent legislation. The member countries of the WTO were put to adopt uniform model of patent laws irrespective of the level of development on ‘leave it or accept it’ basis. The TRIPs agreement enhanced the scope of patentability as it states that all the inventions in the field of technology are patentable. The certain exceptions were also laid down but subject to review of these exceptions in future. However the review of TRIPs has not taken place yet due to the worldwide protests and strong pressure from developing countries but sooner or later the developed countries may adopt the other way of pressurizing the developing countries through some outer agencies like international financial institutions and World Bank etc.

The TRIPs Agreement in its letters no doubt has set lucrative norms and purposes. The Preamble of the agreement clearly lays down that the member countries have to consider the adequate protection to intellectual property rights. At the same time it also lays down that national interests must be protected including developmental and technological objectives and special attention have to be given to the Least developed countries by affording them maximum flexibility in the implementations of the TRIPs norms so as they may be enabled to develop their technological base. The article 7 of the TRIPs agreement lays down that ‘protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer of technology, to the mutual advantage of the producers and users of technological knowledge and in a manner conclusive to social and economic welfare, and to a balance of rights and obligation.’

Similarly article 8 (1) of TRIPs Agreement mentions that ‘members may in formulating or amending their national laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote public interest in sectors of vital importance to their socio economic and technological development.’ Therefore the norms set by the TRIPs Agreement however as a general rule say that all the inventions are patentable but certainly
has left some grounds upon which the weaker countries may rely for their safeguards while harmonizing their national laws on patents in conformity with the TRIPs. The relaxation to the LDCs does not sound fair as they were totally dependent upon the technology of other nations and they have nothing to lose. They are the underdogs in international trade and will continue to be the same. The free and fair trade norms in international arena are of no importance for them. They may be very rich in natural resources and their dependence on the outer support keeps them on receiving end always. Their priority is sustainability of life, not to become technological players in the international markets. Neither they do have means to exploit their resources nor will they mind it to be exploited by the others. The purpose of the uniform stricter patent regime was to cater the imitation by the newly emerging industrialized countries and stopping them from competing with the industries of the western world. If all the flexibility and goals set in the Preamble of TRIPs agreement are set out then why there was need to intersect the Agreement in the Multilateral Trade Negotiations. The growing influence of technological breakthrough in the process of globalization cannot be undermined. The high market cost and competitiveness from local manufacturers was cause of worries to the developed countries manufacturers and invest was risky as these countries apprehend that the technology may be stolen or copied in week era of patents. The best way to enter in the markets of the developing countries was that at first implement a strong patent laws at international level and then have a tension free entry into the third world markets without a fear of being copied or imitated. Furthermore their technological superiority may not be challenged. The pioneer research and development of a new technology is very costly affair and the imitation is very easy and that too in very short span of time.

What criteria the makers of TRIPs Agreement had applied while formulating these norms is beyond the understandings of the majority of the member countries? The factual position was that product patent for pharmaceuticals, plants and animals protection, biological processes, food products, chemical products and microorganisms were not within the purview of patents in majority of the countries. Now setting uniform standards of patent protection and duration of twenty years on all the member countries itself suggests how free and fair the trade in international arena is to be happened. The industrialized countries right through the negotiations in Uruguay Round had advocated for the implementation of the TRIPs Agreements and first four years were resisted successfully by the developing countries. Although it is very difficult to assess at this stage from economic viewpoint whether the enlargement of scope of patentability will honour the feelings of all member countries or not? The one thing TRIPs Agreement had done for the first time is that all immaterial objects will
receive extraterritorial treatment like other objects in international trade. The developing countries and LDCs have given price in order to participate in international trade and world markets by accepting the TRIPs Agreement in Uruguay Round as it was presented in package deal on leave it or accept it basis. The US, EC and Japan triad had been successful in doing the harmonization of patent regime which could not have been achieved over last hundred years.

However The TRIPs Agreement in Art. 27(1) obliges the member countries to grant patents for inventions in all the fields of technology, yet it further clarifies the subjects and situations where relaxations can be given. In paragraph 3 of the same Article the diagnostic, therapeutic and surgical methods and plants and animals are exempted from patents. The absence of a legal definition or interpretation in TRIPs means that it remains for the legislature of the concerned member countries to interpret and decide as to what inventions are patentable or not patentable. The controversy exists in cases of the software, scientific theories, discoveries, mathematical methods and DNA cells etc.

The other clause which TRIPs incorporates is the importation clause. The importation will be deemed to be working of the patents in the country of grant. This will forfeit the very basis of the rationale of the patent regime. The developed countries MNCs may rely on the imports for market supply. The compulsory licenses norms applied by the member countries earlier in their national laws are to be diluted. Article 31 however allows compulsory licenses but the norms have been made very stiff for grant. It emphasizes that for grant of the compulsory licenses the applicant must have attempted to attain the consent of the right holder on reasonable commercial terms and conditions. Such efforts having been failed within a reasonable period of time, the compulsory licenses may be granted but only in cases of national emergency or other cases of extreme urgency. The scope and duration of compulsory licenses must be limited to the purpose for which it was granted and only for the use predominantly in member country which grants compulsory licenses. Further it incorporates as soon as the circumstances which led to the grant are over and are not likely to occur the license must be terminated. The right holder will receive the adequate remuneration for the license according to the circumstances of the case. Therefore the prerequisites for the grant of compulsory licenses have been made very strict. The negative form of these provisions are that when the person getting compulsory licenses know that it may be terminated at anytime, nobody will take risk for a shorter period for the manufacture of licensed inventions as it may take him to spend a lot to start manufacturing. The involvement of risk leaves these provisions almost to a nullity without certain security for the manufacturers.
The goal of TRIPS is to "reduce distortions and impediments to international trade by 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. In a nutshell, the agreement requires that signatory nations adopt intellectual property legislation that conforms to the treaty's provisions. Historically, sovereign nations control all the activities within their territory, which means that every country could act to protect the cultural knowledge of their people. However, these countries were pressurized by developed countries to sign TRIPS, which prevents them from passing protectionist laws for suitability of its own. Majority of the developing and less developed nations succumbed to this pressure with a view of equalizing their economies with those of developed nations at the expense of their indigenous populations who consider their cultural knowledge as community instead of private property. TRIPS has effectively resulted in continued exploitation of indigenous knowledge. In this regard, Article 27 of the TRIPS Agreement is in direct confrontation to the goals of the Biodiversity Convention. Whereas the Biodiversity Convention recognizes, for the first time in an international treaty, the important role played by indigenous populations in the gathering and preservation of cultural knowledge regarding regional biodiversity. The CBD recognizing the sovereign rights of the nation over its natural resources has also not acknowledged the role of the community which has kept the cultural heritage alive for generations. The CBD has not been averse to the Patent or other IPR protection but talks about the benefit sharing. How important the natural resources and traditional knowledge is for the developed world especially US can be gathered from the fact that it has not ratified CBD till date. Since its inception, the United States has been critical of the Biodiversity Convention because it would spoil American intellectual property rights. Bio piracy has been on the rise ever since a 1980 U.S. Supreme Court decision held that people could patent biological living organisms. In response, many developing countries have enacted legislation designed to protect their natural resources, often by drastically cutting foreign-researchers access to some of the most diverse eco-systems in the world.

TRIPS has placed greater emphasis on morality. Article 27(2), provides that states may exclude an invention from patent protection if prevention of "commercial exploitation" of that invention in their territory is necessary in order to "protect ordre public or morality." This provision clearly allows that if commercial exploitation of an invention is necessary to protect the public order or morality and if it seems to the member country that exclusion of the
invention from patentability is the only way to prevent its commercial exploitation, and then the state may bar the patent. Therefore, under article 27(2), member countries may exclude an invention from patentability on the basis of public order or morality where granting a patent would result in commercial exploitation of the invention, and that such commercialization would affront the state’s concept of fundamental norms. The existence of this clause in the TRIPS Agreement has left something to be manipulated by the member countries while formulating or harmonising their national laws in conformity with TRIPs Agreement. But the countries differ in these norms as what is moral for one country cannot be for another and resulting patent protection in that country. The laws may differ and the laws applied by the judiciary in different countries may differ. Does the law recognize morality? It is very difficult to define and explain the uniform norms of morality. The TRIPs provisions should have been strictly clear on this issue. The issues which may arise in future are that if a member country refuses to grant patent for any invention on the basis of morality and majority of the countries are granting patent for the same invention, what will be the parameter to weigh the morality clause? Therefore chances of disputes in future are imminent instead of smooth functioning of the international trade.

Finally, working to reconcile TRIPS with the goals of the Biodiversity Convention could help to promote a more equal sharing of profits from products developed from indigenous sources of knowledge. As discussed above, article 27 of the TRIPS Agreement requires Member States to protect property rights in microorganisms, non-biological and microbiological processes, and plants by either a patent system or a sui generis system. In contrast, article 3 of the Biodiversity Convention recognizes that States have the sovereign right to exploit their own resources pursuant to their own environmental policies.” Despite the differing requirements of the two treaties regarding intellectual property protection, it is possible to reconcile the goals of both. The globalization of Western intellectual property rights will inevitably diminish the world’s biodiversity because Western intellectual property regimes place no value on the communal knowledge of indigenous societies. It is the lifestyle of these indigenous groups that has sustained and nurtured their countries’ biodiversity. TRIPS-compliant patent laws will lead to the monopolization of the world’s biological resources and knowledge, jeopardizing the interests of the indigenous communities who sustain that biodiversity. Not only this, developed world has been for now concentrating on genome technology. It is not easy to establish policy that deals with implications of genome technology. This involves huge risk of being misutilized. Neither public debate nor the
The existing regulatory norms are well suited to resolving differences that emerge from the moral and social plurality.

The international treaty with far-reaching ramifications cannot be implemented overnight by the member countries and the transitional period to apply the provisions was a necessity. The TRIPs Agreement also provided for the transitional period within which the member countries had to transform their national patent laws in conformity with the TRIPs Agreement. The paragraph 1 of the Article 65 provided one year's transitional period for all the member countries. Since WTO came into existence on 1-1-2005 the TRIPs norms have to be applied from 1-1-2006. Paragraph 2 gave four years additional transitional period to the developing countries. Further the countries which were not providing product patent were granted additional period of five years to change their national laws. The LDCs transitional period was extended by the Doha Declaration up to 2016. The India being developing country and not providing product patent for food, drug and chemical sectors, therefore was under obligation to provide product patent for this sector from 1-1-2005. The Indian government however utilized the transitional period successfully and transformed the patent laws in phased manner. Despite transitional period it was proved a hoax as the TRIPs provided for the pipeline protections during this period. Article 70 of the TRIPs had serious implications on the developing countries as it laid down that the applications for product patent can be filed and exclusive marketing rights to be granted to the applicants and applications be scrutinized after transitional period is over. Therefore the developed world was very keen that their position should not be jeopardized in international economic scenario. The use of Super 301 by USA and declaring week patent protection as unfair trade practices and threatening sanction against many developing countries clearly denotes the eagerness to apply the stricter patent norms at international level. The other industrialized countries exploited this situation and in the whole process little consideration was paid to the needs and requirements of the developing countries. The developing world was very clear that multilateral sanctions could be invoked against them if they will not be ready to negotiate in the Uruguay Round.

However India had to change the national law on patents within ten years from 1995 when WTO started functioning using the transitional period but it was a hoax as TRIPS provided for the provisions for pipeline protections during this period. The applications for the patents were to be accepted and exclusive marketing rights were to be provided to the applicants and after framing product patent compliant laws these applications were to be considered for the
grant of patents. Since then there has been sharp questioning and criticism. While it has been constantly reiterated that the agreement is not inconsistent with the legitimate aims of industrial development and public health, especially of the developing countries, there have been expressions of acute fear and sharp protests from Brazil, India and even the African countries within the WTO. The flexibility provided for in the agreement fail to reassure the developing countries.

The India has gone for three types of patent protection within one century. The Patent and Designs act of 1911 provided for the product patent regime. The act was enacted by the British government taking the law of UK as model. The Act of 1911 was not going to serve the Indian interests any way and kept the Indian market subservient for imports from developed world. The indigenous industry could not flourish. It is evident from the fact that Indian government after independence was looking for the indigenous industries to develop in such a way that it serves its multipurpose such as industrial development on the one hand and generation of source of employment for vast public. The above all was the priority of the welfare of the general public. After India got independence, it enacted Patents Act of 1970. And now after becoming the signatory of the WTO in 1995, the TRIPs compliant patent laws which have been harmonized at international level. The Indian government had enacted the Patents act of 1970 after experiencing the debacles of economy suffered under the colonial patent regime of 1911 Act. The 1970 act was passed after very thorough scrutiny by two different committees and parliament itself. Whatever development the economy and industrial sector of India had witnessed is only due to the favourable provisions of the 1970 Act. The rationale of patent protection was applied in such a cohesive manner that both the right holder and public at large were kept at equal beneficial positions. The Act of 1970 had become so popular that it was adopted by many developing countries as a model to lay down their domestic laws. The criticism of the Act, if there was any, from only industries of the North who found it more irritating to lose their control over the market. The basic feature of the Act of 1970 was that the subject matter of crucial importance such as agriculture, horticulture, atomic energy, natural resources etc were kept outside the purview of patents and food, drugs and chemical sector was provided only process patent. The term of the patent was from 7 to 14 years. The Act laid the obligations of the patentee to work the patent for the benefit of the country. The License of right, compulsory licensing provisions were incorporated with great ease. The provisions for only process patents in food, drugs and chemical sector opened new opportunities for the entrepreneurs in enter in competition through a new process. The competition in market helps both the consumer as well as entrepreneurs. The result was the
affordable prices for the consumers. The pharmaceutical sector of India was the most beneficiary of the flexible provisions of the Patents act of 1970. The Indian Patent act of 1970 had many provisions which restricted the patentee becoming monopolistic as there were certain restrictions on the rights of the patent holder. The Act had laid the basic philosophy itself in section 83 of the Act which was based purely on the recommendations of the patent inquiry committees who had found the Act of 1911 not working according to the needs of the country. The foreign national had acquired patents and had about 95 % of patents but were never interested to work that patent in India. Therefore Act of 1970 clearly provided that the patent must be worked in the country and the market supply must be fulfilled that too at reasonable cost so that the public at large can afford.

The feature of the Patents act of 1970 was that in section 3 it clearly mentioned the inventions which were deemed not patentable. Certain exceptions were laid down in this section such as inventions which are frivolous, contrary to morality and injurious to public health and mere discoveries. Besides the inventions relating to atomic energy was also not within the purview of patentability. The most important part of the Act was that the inventions in food, drugs and chemical sector were not granted product patent and only process patent was allowed. The term varied from seven to fourteen years and it was supposed to be enough for the patent holder to exploit commercially.

The compulsory licenses hold the key position in patent system of any country and these provisions were the soul of the Patents Act of 1970. The government was empowered to grant compulsory licenses on certain grounds and above all the highlight of the act was that the inventions in the field of food, drugs and chemical were already endorsed with the License of right which allowed any interested person to have license after three years of course on the payment of royalty to the patent holder. Ceiling rate of royalties was fixed at 4 % in such cases. The basic purpose of the Act was to work the patent in domestic country instead generating import monopoly. The non working of the patent was made one of the ground of revocation of the patent by the government. The enactment of the Patents Act of 1970 was with a view to develop indigenous technological and scientific competency. This was the face when patent laws were discriminative in favour of domestic enterprises. The result of the enactment of the Act of 1970 was that within a short span of two decades Indian industries rose to a level high from where it could have posed threat to the pioneers of technology. The pharmaceutical sector of India was the most benefitted sector among industries in India. The provisions for keeping the food, drug and chemical sectors away from product patent suited
the indigenous pharmaceutical industry the most and this sector from nullity prior to Act almost become the power to be reckoned at international level today.

Having availed of the additional transitional provisions in Article 65.4 of the Trade-related Intellectual Property Rights (TRIPs) Agreement, India was obliged to introduce product patent for food, drugs and chemical sector by 1 January, 2005. The further obligation before India was to provide mail box applications provisions and grant exclusive marketing rights for these sectors immediately after WTO came into existence. The process for the compliance of TRIPs norms started with The Patents (Amendment) Act, 1999 (No. 17 of 1999), adding Chapter IVA titled ‘exclusive marketing rights’. The second amendment, Patents (Amendment) Act, 2002 (No. 38 of 2002) was enacted on 25 June, 2002. The Indian government almost adopted all the provisions necessary to make Indian law compatible with the TRIPs Agreement in the second amendment. The Introduction of the product patent regime to food, drugs and chemical sector was left to be amended by further amendment for which India had time limit up to 1-1-2005. The Amendment Act of 2002 adopted the PCT and Budapest Treaty provision for international standards in Indian Patent Act. The other changes which were incorporated were making duration of patent 20 years. License of Rights provisions were deleted and provisions regarding compulsory licenses were redrafted according to TRIPs norms. The burden of proof was reversed for process patent infringements. The relaxations in the form of parallel imports and bolar provision were adopted. Appellate Board was created and norms for its functioning were laid down. Further the minute changes to make it more international friendly were made in filing procedure, examination and publications etc. Further the Indian patent administration was updated and E-filing was started. To cope up with the international patent pressure the modernisation of the administrative structure was initiated.

Finally to provide the product patent regime for the foods, drugs and chemical sector which were not provided product patent in India earlier, the Amendment act of 2005 was passed. The last obligation to make Indian laws on patent TRIPs compliant was made through this amendment. The amendment deleted the exclusive privileges provisions which were temporary in nature as during transitional period the norms were applied only to comply the TRIPs norms. The third amendment gave a new definition for the inventive step “a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both that makes the invention not obvious to a person skilled in the art”.

The above provision perhaps broadens the existing provision to the benefit of patent holders and is vague to the extent that it allows two different criteria for meeting an inventive step. As it mentions that the patentee will either have to show that the invention includes a technical advance or that invention has economic significance, or both. Instead of having both characteristics one may be enough which makes it little vague. The requirement of technical advancement has been compromised and diluted by the fact that a patent could be simply granted on economic significance alone. Economic significance at its own cannot determine the inventive step of a patentable invention. The TRIPs norm mentions that invention includes the inventive step and industrial application. The invention has been defined according to the TRIPs norms but inventive step substituted by the amendment develops vagueness.

Section 3(d) has been amended to read: 'the mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or new use for a known substance or the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least employs one new reactant'. The use of the phrase "which does not result in the enhancement of the known efficacy" potentially allows for new forms of existing substances to become patented. The insertion of the words "result in enhancement of efficacy" could be a minor amendment to an existing invention to in order to get around the provision as it stands. The amendment of 2005 however made our patent law TRIPs compliant and the respite for the generic manufacturers has been provided in the Act. The amendment permits generic manufacturers to continue producing generic version of new drugs which are in the mailbox. However, these provisions will apply only where the generic producer has made a significant investment provided they were producing and marketing the generic version prior to 1 January 2005. The generic companies are required to pay the patent holder a reasonable royalty. The letters "significant investment" retains a threat of potential infringement suits as the generic producer would have to clearly show that it has made what would be considered a significant investment in producing and marketing the generic drugs. With respect to the reasonable royalty it creates doubts as the problem of excessive demands from the patent holder and litigation may be the outcome. The reasonable royalty rate should have been fixed at a particular percentage. Further the pre grant and post grant oppositions norms were retained by the amendment.

Further in cases of plants instead of providing patent protection India opted for the PVP Act 2001. The TRIPs Agreement has clearly mentioned that for the protection of plants and
animals the sui generis system can be opted by the member countries. The area of confrontation will be the Convention on Bio Diversity 1992. The India being member of the Convention had enacted The Biological Diversity Act 2002 incorporating the basic provisions of the Convention. The coexistence of the two norms will create controversy. The TRIPs norms had already provided for the review of the relaxation norms within four years from the implementation of the WTO. However the review has not taken place still and deadlock is their through the stiff resistance from the majority of developing countries.

Patent laws which has been a development policy instrument for the developing countries, is looked upon as a condition precedent for the investment by the developed world. The aim of stricter patent regime is to keep the competitors away and enjoy monopolistic situation. The new patent regime no doubt leads towards the erosion of the economic rationale of patent philosophy.

Article 27 of TRIPs agreement impinges on various interests of developing countries in respect of the patentability criteria, including exclusion and alternatives to patents, protection of genetic resources and traditional knowledge in combination with how to deal with the curse of bio piracy, the preservation of the integrity of rural farming communities including their performance for helping ensure food security. The aims and objectives of the Convention on Biological Diversity have not been respected and TRIPs nowhere speaks about the sharing benefits in using the natural resources of the host countries.

However in papers or in textual context TRIPs Agreement sounds favourable for developing countries on the issue of technology transfer as Articles 7, 8 and 66.2 provides for facilitating technology transfer. The developed countries may not practically allow this as they were apprehending imitation earlier and were reluctant to utilize latest technology in the countries which were having week patent protection. The fear of losing technological superiority was the reason they were looking for the same kind patent protection all over. Since the pace of technology is present era is very fast and long duration of protection i.e. 20 years is too long for any technology to sustain. If any technology gets off patent after 20 years and open to be used by all, the technology will be of little value at the expiration of patent period. The compulsory licenses provisions have already been diluted and it will not be easy to government to apply these provisions. As the member countries have been empowered to grant compulsory licensing only in cases of national emergency and extreme urgency and can be withdrawn when the circumstances are over which led to grant of compulsory licenses.
The entrepreneur may be reluctant to have compulsory licenses in these circumstances for reasons of uncertainty which may affect their venture.

Developing countries have been for long time under demand by industrialized countries for the implementation of strong intellectual property rights. The main concern of the industrialized countries is to protect the innovations in the developing countries from the illegal imitation and copying. They do not want their technology to be mastered by the reverse engineering. The debate among both the factions i.e., industrialized nations and developing nations is getting intense since the last two decades. The protection for the innovation has been extended from innovation to discovery, from mechanical devices to living organisms. Intellectual Property Rights are one of the sensitive areas for developing countries whose proper implementation with appropriate timing could lift the socio-economical conditions of the developing countries.

As we consider the advancement of international trade law and its relationship to the existing legal regime governing the promotion and protection of human rights, we are confronted with difficult impasse. The challenge of ensuring adequate health care to people in the poor regions of the world and turning today's technological transformations in the pharmaceutical sector to the service of socioeconomic development is indeed tremendous. While the genius of what can be done through technology is shocking the collective failure such as we are witnessing in relation to access to essential medications is hard to defend. As the potential of what can be done to balance the interests continues to unfold, the question remains whether the explosion in pharmaceutical technologies will be matched by policies to ensure that the benefits are well spread to reach those who are in dire need. While developing countries have to conform to the minimum standards under TRIPS, there is a wide scope of discretion that allows them to fashion appropriate national strategies within this multilateral framework. The flexibility within TRIPS permits countries to take measures to protect their public priority objectives including the realisation of the right to health. The Doha Declaration has unequivocally confirmed the legality under WTO law of these flexibilities and the right to use them to address public health.

The TRIPS Agreement only establishes a general criterion for patentability. The criteria being flexible, the requirements of patentability may be strictly interpreted to limit the grant of new use patents for pharmaceuticals. In deciding whether to grant new use patents a lot of thought must be given to the issue of inventiveness versus adaptation. In the case of second pharmaceutical use it is clearly difficult to draw the line. By insisting that patents are granted
only for new drugs representing a major breakthrough, a state fulfils its obligation to protect health as it ensures that no unnecessary restriction not serving the legitimate governmental purpose of protecting inventions is placed on access to medicines. An important component of this obligation is therefore creating administrative mechanisms that ensure that patents meet strict standards. In terms of establishing a technological base however, it is considered that developing countries may have some comparative advantage investing in discoveries of new uses of known products as opposed to investments in R & D for new products. Where this is the case and where the government can mitigate against any detrimental effects, protection for first medical indications may pass the test of reasonableness.

Accordingly, after taking full advantage of the ten-year period, India has allowed product patents particularly with Indian pharmaceutical industry coming of age. As the issues involved were no doubt complex and of critical importance to both domestic pharmaceutical industry as well as consumers, the changes have been brought after considerable debate for many years. The mailbox application about 12000 in numbers and majority in pharmaceutical sector clearly shows how important and vast implications this sector will have after the product patent regime becomes applicable in full bloom. The clear provisions in the amended Patents Act to protect the interests of domestic pharmaceuticals and chemical industry state that domestic companies can continue to manufacture patented products even after a patent is granted in respect of mailbox applications on payment of a reasonable royalty to the patent holder, provision for both pre-grant and post-grant opposition avenues as well as reduction in timeframe for grant of patents in a cost-effective manner are also provided, the pre-grant opposition to patents has too been strengthened. Further the Act also provides to prevent “ever-greening” of patents for pharmaceutical substances, provisions listing out exceptions to patentability have been suitably amended to remove ambiguity, the conditions for obtaining compulsory license have been clarified to facilitate export of patented pharmaceutical products by Indian companies, a reasonable period for negotiations between the patent holder and companies seeking compulsory license has been fixed at six months and research and development has been exempted from the ambit of patents. Yet another result of the new patent regime would be that more and more multinational pharmaceutical companies might shift their research and development activities to India since they know that their intellectual property rights would be protected. As it is several multinational drug companies have started some of their R&D activities in India because of the availability of cheap and skilled manpower.
The globalization coupled with the stricter patent regime at international level will serve the cause of the strong’s in the market. The industrialized world has attained lot through this WTO umbrella treaty. They tend to intrude the markets of the third world through all means of market strategies. The opening the investment sector has not worked due to lack of protection to technology being imitated by the host countries. The MNCs were not inclined to introduce latest technology through investment in third world and now with the tools of uniform patent regime they will certainly be pushing hard to enter the third world market. The investment and production will cost them cheaper as this part of the world has low labour cost. The industrialized world’s MNCs had their production plants in many countries. The pollution control of the host countries is kept intact and the manufacturing units in other countries helps their cause. The developed world had agreed to induct all the agreements in WTO and the agreements relating to pollution and labour has not been finalized. The developed world will never allow at least the globalization of the labour. The developing countries should press hard to include these two new issues in the WTO negotiations in the future.

There are also conflicts between north and south on the question of biotechnology inventions. The developed countries would like to invest in R&D so as not to lose their supremacy in the field of biotechnology whereas the developing countries who hold the majority of world’s genetic resources wants their property to be kept intact. The developed countries are interested in the genetic resources of the southern countries.

The increasing number of biotech enterprises is likely to create a need for bioengineers in the years to come. Many universities throughout the world are now providing programs in bioengineering and biotechnology. Biotechnology is being used to engineer and adapt organisms especially microorganisms in an effort to find sustainable ways to clean up contaminated environments. The importance of the biotechnological sector in agriculture, horticulture, environment etc has opened new opportunities for the bioengineers. This is the area which can be exploited by Indians as we are very rich in the biological resources. However in contrast to their wealth in genetic resources, most developing countries lack the technological and financial resources to fully exploit these resources. With the initiation of modern biotechnology, many developing countries have apprehension that their varieties may be genetically changed and that the new varieties may later be substituted for the original varieties from which they were derived. Moreover, if intellectual property protection for plant
varieties is reinforced after review if it takes place, foreign companies may become the owners of varieties originating in developing countries.

The impact of new patent regime on the health of poor people in developing countries has generated substantial controversy in recent years. For the developed countries, the pharmaceutical industry was one of the main lobbyists for the global extension of IP rights. For developing countries, a major concern was how the adoption of intellectual property regimes would affect their efforts to improve public health, and economic and technological development. The importance of prices of medicines to poor consumers in developing countries is perhaps obvious. The Doha Declaration on the TRIPs Agreement and Public Health was adopted on November 14, 2001 as a result of the pressure received from a number of developing countries. The main purpose was to clarify the rights of member countries particularly developing and least developed countries to use TRIPs safeguards. The patenting of medicines has been a central and contentious issue throughout the history of the intellectual property system and has indeed been conflict-ridden in both developed and developing nations. The use of compulsory licensing as a legal mechanism to control possible abuses of the patent owner has been a key factor in the evolution of international patent regimes. Under the TRIPS Agreement all members of the World Trade Organization (WTO) are bound to grant patents for pharmaceutical products. In addition, the pharmaceutical industry devotes very little R&D effort to diseases of the poor in developing countries, since such diseases are not high-income generators. The MNCs have their targets in profit oriented areas. The developing countries with the present capacity to export off-patent drugs will lose that capacity in regards to newly developed patented drugs. At this point, affordable access to patented medicines in developing and least developed countries will become increasingly dependent on compulsory licensing.

The implications of the new patent regime upon Indian economy should not be seen in narrow frame work as WTO is itself multilateral treaty. The TRIPs norms do not impinge in other sectors as in the areas of patents. The international norms in copyrights and trademarks do not have any implications on the economies of a country. Indian norms in these sectors were almost at par with the norms of the TRIPs Agreement. However giving it international character both of these laws has already been amended. Whereas the ramifications of patents are concerned for Indian economy, the other areas that WTO Agreement envisages cannot be ignored. The investment measures under TRIMs and opening the services sector under GATS are two main areas which directly affect the working of the patents in international arena. The
foreign investment and limits of equity sharing has been liberalized and no doubt the MNCs were only eying for the strong patent regime as a condition precedent for the direct investment. The opening of the economy has not worked for the benefit of the poor's in the past also. The Indian economy is passing through a difficult phase caused by several unfavourable domestic and external developments. The policy of disinvestment and liberalization, hyped as the only way forward, has not resulted in major private investments in infrastructure projects like roads and electricity. The gap between poor and rich has widened. So the heartless MNCs have nothing to do with the development of the rural sector and poor people which still form the large part of Indian population. Handing over the market in the hands of profit hungry masters of economy will no way use the new patent regime for the benefit of the domestic country. The market structure erodes the welfare concept of a democratic country. The policy making is controlled by the capitalist classes. The developed world has achieved the level of development and their aim is to sustain their supremacy in the market. They are not worried about the basic needs of the developing countries. The R&D of these countries revolves around the technology which seems to them profit oriented and they are least concerned in infrastructural development. The sectors or classes which are not paying classes are never the target of the R&D. The MNCs for years has dominated the luxuries sectors. Right from the toothpaste use in the morning to mosquito mats in the nights the people have become used to the products of the MNCs. Developed countries may introduce the sex power drugs Viagra but they are not interested in developing R&D in the sectors which will care the common diseases in the poor African countries which they know do not have the capacity to pay. That's why India had become the main supplier of the generic drugs to these African countries. The product patent regime will no doubt have adverse impact on the pharmaceutical sector in India and alternatively upon the poor countries which were dependent upon imports from India. The FDI in India has increased and of course will increase further. The collaborations and mergers of the industries will become rampant as the indigenous industry will no longer be in a position to compete with the giants of developed world. The licenses of patents are helpful to transfer the technology to the licensee. But it depends upon the terms and conditions of licenses and the rate of the royalties. The competition in the market controls the prices but the product patent regime will make the patent holder to exploit his invention exclusively for long duration of twenty years. The licenses if given to the interested person will increase the cost of production and resulting in higher prices for the consumers also.
The agriculture sector which is by far the most important sector and large part of Indian population still dependent upon this sector for many reasons is also going to suffer under new patent regime. This is the basic sector to sustain the food security. The development of the technology is necessity in this sector as the population is growing and cultivated area is diminishing. The challenge ahead is to generate the food security from less area to larger populations. The use of high yielding variety seeds, fertilizers and pesticides has developed the production in this sector. The machines, tools, equipment and lot of other scientific technology are used in modern cultivation. The MNCs are also trying to enter in this sector also. However Indian government has not brought the agriculture and horticulture within the purview of patents yet, still the patents in chemical sectors, microorganisms and biotechnologies will have adverse impact on this sector. The perennial use of chemical in the form of fertilizers and pesticides had affected the soil and its fertility and therefore now the bio fertilizers and bio pesticides were the best substitutes as they are not harmful to the fertility of the land. The MNCs has dominated this sector for past some times as developed world has been providing patents for biotechnologies earlier also. The Indian laws were not providing the patents in this sector therefore the MNCs of the developed countries utilizing the genetic resources of the developing countries including India had developed their technological base in this sector also which will be detrimental to Indian interests now. Whereas the policy questions regarding the emergence of TRIPs is concerned India had been the strong opponent of the TRIPs Agreement’s intersection into GATT in the Uruguay Round along with likeminded developing countries. It was only the pressure exerted by the developed world especially the sanctions threats by US which led India to be agreeing to negotiate. What was lacking on the Indian part was the strong bargaining. The country of Indian size is very important for the industrialized countries as a market of over one thousand millions. The developed world should not have allowed developing countries easily to come out of the negotiations. When Indian government agreed to negotiate on the TRIPs Agreement during Uruguay Round under Congress led government the opposition parties made hue and cry and were totally against the inclusion of TRIPs in GATT. The main opposition party BJP and other small parties including Left all criticized the government’s move. The irony of the fact is that after India became the member of WTO the first amendment was made by the NDA government led by the same BJP which along with its Sangh Parivaar was a great critique of the treaty. Within a segment of the Indian Left, globalization was seen as a tool of imperialism of the West and so was the harmonization of the patent regime which brings them to a total rejection of it. But when the final amendment
to make Indian patent law total compliant to TRIPs by inducting product patent provisions for food, drugs and chemical sectors, they were the part of the UPA government and ratified the governmental stand. The compulsion of the political parties is hard to be understood and a conclusion can be drawn that it was only the external pressure upon ruling segment to apply the treaty.

Whereas the dispute resolution is concerned the Patents Act of 1970 had already the provisions for the remedies against the infringement of the patent rights. The norms set by the TRIPs for providing remedies for infringements of patents were already compatible. The government, however, after second amendment established the Appellate Board for the appellate reviews in place of appeals to the High Court. But the dispute resolution system enshrined in the WTO has for the first time made any international treaty look more effective. It applies to all the subjects covered under the main WTO Agreements. The dispute resolution norms are formulated having balance of convenience in favour of the developed world. The norms for the establishment of the panel only say that one of the three members in the panel may be from the developing countries. The lack of technical knowledge, very costly dispute resolution system, and lengthy process may prove detrimental for the developing countries. The countries like India lacks in professionals and hiring the services of professional will be very costly affair. The provisions that during the violation complaints or litigation the infringer may be debarred from manufacturing or in other sense the production will remain suspended, will no longer help the cause of small manufacturers. The multinational corporations may destabilize the small manufacturer even through malicious complaints of infringements. The worst part will be the reversal of the burden of proof. The right holder only has to complain and it will be the infringer who has to prove his innocence and non violation. Thereby the basic tenets of Indian jurisprudence have been reversed. The medium or small manufacturers do not seem to be in a position to face the onslaught of the MNCs of the western countries. Section 3(d) says that incremental innovation is not patentable. Because of these provisions the patent for the Glivec asked by Swiss pharmaceutical was not granted. However it has got patent in many countries other than India. The controversy was taken to the court by the Novartis. These type of controversies are about to rise in the absence of the clear cut criteria. The patent aspirants for such type of inventions are giving many reasons for this as if there is no innovation there will be no new drugs and all the unmet medical needs will be pending. India has a great opportunity both in terms of scientific pool, demographic dividend, the cost structure, the patient pool. The pharmaceutical sector is so important that in market realization no body generally bargains and the consumers pay the
cost as it is required for the cure or otherwise continue to suffer. Earlier the US had successfully taken India to the WTO dispute settlement regarding the implementation of the exclusive privileges rights as India could not implement it till first amendment in 1999. The ultimate result was that the EMRs were granted retrospectively from 1-1-1995. Therefore this will be another area of concern for the developing countries especially those who are becoming threats to the technological superiority of the developed world. The developed world is eying now on the data protection as miles of data is now available to a generic company, which uses it as its own and launches a product for commercial interest. Article 39.3 of the TRIPS agreement clearly says that data generated by Innovator Company cannot be used by third parties for commercial interest. The data can be available for information, but not to use it and say that it is exclusive to the company. The Indian government has not yet adopted these provisions and rightly so.

Therefore in nutshell the patent regime at international level and that too of the standard of the technologically advanced countries will no longer be beneficial for the comparatively weaker countries. The concept of new patent regime has commoditized the knowledge to the extent that it will centered in around the developed nations and to their dictates will lead to hostile development of capitalism and expansion of the neo colonization through economic imperialism. Intellectual property though created by the intellectuals will be exploited by the big corporate sectors that hold the dominant position in the markets. Looking into the prevailing economic standards of India it will be detrimental for the interests of the indigenous industry and Indian economy.

Suggestions

The harmonization of patent system at international level and Indian Government amending the patent laws to comply the TRIPs provisions has both advantageous and disadvantageous effect. It all depends upon free and fair play tactics of the champions of the markets. As apprehensions are there that it may be free rather fair play, adopting a strong patent system may not be beneficial to the developing countries including India. India has a fully TRIPS compliant patent law since 1st January 2005. The impact of TRIPS on the economy is not yet studied or understood. But due to increasing number of applications and demand from the users, harmonization has become inevitable. So India should gear up for challenges to be faced due to the harmonization of the patent laws. The disadvantages of the harmonization in India will be due to the lack of infrastructure and lack of awareness towards Patent. There are
some tentative suggestions that this study puts forward. The Government should do the followings for the better result after compliance of patent regime harmonious with TRIPs:

1. The research and development level of the country should be upgraded to match the level of the developed countries. The government should frame policies so as to encourage the indigenous industries to develop R&D infrastructure and create intellectual property in the forms of patents. The incentives may be given to encourage R&D.

2. However modernization of the patent offices had been done but still the patent system should be improved. The patent office should not limit its function as to manage patent registers or administer the patent rights but it should act for the awareness of patents among the industrialists, researchers, students and general public at large. The patent documents should be made available to the public on electronic media like internet for dissemination of technical information contained therein.

3. The Government should promote awareness programmes relating to IP. The Universities should be utilized as the centre for innovative activities. The universities should also realize its responsibilities as not only a centre of higher education but also as research pioneer.

4. The TRIPs Agreement has prescribed the minimum standards to be adopted by the member countries. There are so many grounds for maneuvering as many key words has not been interpreted clearly such as micro-organism, inventions, novelty, microbiological processes and non biological process, traditional knowledge etc. the developed countries are and will continue to interpret these terms according to its own suitability. Indian Government at this stage has used the exceptions cleverly and the stand must be hard in future to be benefited from the harmonization of the patent laws.

5. The government of India should not compromise with the exemptions provided in the form of research provisions, bolar provision and parallel import and as developed countries are eying for the stricter constructions of these provisions.

6. The TRIPs provisions has provided for the review of the Art. 27.3 after four years from the inception of the Agreement in 1999 but till date review has not been finalized and deadlock still subsists. The developed countries are in favour of review on the other hand developing countries are not. India and China collectively are playing a major role and had represented to WTO on this issue. The TRIPs and CBD are contradictory on the issue of patenting of natural resources as CBD acknowledges the natural resources the
property of the country in which they are found and they cannot be exploited without the prior information and consent of the country of origin that too with applying the benefit sharing formula. The US has not still ratified to be the member of the CBD. The Indian government had already legislated national law on the basis of CBD in the year 2002 in the name of Biological Diversity Act of 2002. Even the Central Government has passed an Act for the tribal and traditional forest dwellers in 2006 whereby the rights of certain communities over the forest produces have been recognized for their livelihood A hard stand along with the developing countries will have to be taken for keeping TK and natural resources from the purview of patents and review of provisions should not be allowed.

7. The CBD provisions regarding IPR may be applied by the country in the following ways:
   a) Either the IPRs of the community possessing TK be identified and any use of TK for any commercial entrepreneurship should be allowed only after payment of royalties to be deposited in the fund to be generated for the welfare of that community, or
   b) there should not be any patent for any natural resource/TK as it is already in existence and mere discovery does not qualify for patent.
   c) Any invention developed on the use of TK should be allowed to be engineered by the reverse engineers or genuine manufacturers and out of the purview of infringement.
   d) If the country of origin of the TK does not have the resources to commercially exploit its own natural resource treasure, the IP holder must fulfill his obligation towards the country of its origin.

8. The Doha Declaration on the TRIPS Agreement and public health clearly confirms that the obligations under the right to health must underlie the manner in which states interpret and implement the Agreement. By affirming the right of WTO members to take measures to protect public health, the WTO accepts that the Agreement leaves room for maneuvering the interpretation and implementation of the Agreement at the discretion of states and in particular that the right to health conditions the manner in which states can exercise the discretion under the Agreement. The relaxations must be utilized keeping developmental needs of the country in priority.

9. India must take the developing countries in confidence and should consider insisting on a review of the substance of Article 27.3(b) of the Agreement. A substantive review can establish whether Article 27.3(b) can operate consistently with CBD obligations, or if it
requires amendment. The review should ensure that Article 27.3(b) is amended so that it
does not frustrate the CBD objectives and provisions.

10. The member countries should be pressurized to be agreeing to a moratorium on the new
emerging technologies which involves morality issue like genes, cloning etc. or any
challenges against developing countries until the reviews under Articles 27.3(b) and 71.1
are complete.

11. For fair adjudication of disputes generating from the infringements of patents in
biological diversity it should be ensured that dispute panels are aware of, and understand
and assist in the enforcement of the obligations of the CBD, by drawing up a list of
experts who could sit on panels when disputes involve CBD objectives.

12. The terms used in the Act must be defined very clearly to avoid ambiguity and discretion
to be used by the judiciary. Unless the clarity of certain terms are not defined it will
cause confrontation among the member countries. Clear cut definition of the term novel
and invention must be developed so as to avoid confrontation regarding the discovered
invention. This may serve the dual purpose as on one hand it may keep the traditional
knowledge away from being getting in the hands of private investors and second the
frivolous inventions may be avoided patents.

13. Articles 30, 31 and 40 should be reviewed to provide enough flexibility to enable
governments to take the necessary health and nutrition measures and implement policies
grounded towards the diffusion of technology. Developing country governments should be
free to implement compulsory licensing to achieve public health objectives, and
safeguard their citizens' rights to technology, without pressure from developed world or
multinational corporations.

14. Paragraphs 2 and 3 of Article 64 should be amended to exclude non-violation
complaints, which would permit WTO Members to challenge another’s national law
even without proving a violation of the plain requirements of the TRIPS Agreement. This
remedy is inappropriate for the TRIPS Agreement. If allowed, non-violation remedy in
the IPRs will constrain developing countries’ ability to introduce new and vital social,
economic development, health, environmental and cultural measures.

15. The norms must be made very clear to assess the damage in cases of infringement and
where the loss is no incurred at least the minimum nominal damages should be awarded.
These may be in the form of the royalties.
16. A suitable provision may be inserted in the principal Act to the effect that any patent infringement committed wilfully on commercial scale and in organized manner shall be subjected to criminal prosecution.

17. Article 71.1 provides for a review of the entire Agreement. Of all provisions of the TRIPS Agreement, this one alone should provide sufficient basis for recasting the Agreement to take into account developmental interests of developing countries. The inclusion or deletion of any clause should be dealt on merits and demerits of that clause and with the help of likeminded member countries the aspect of developing countries must be proposed strongly in any such efforts. The united resistance to any detrimental clause may help the weaker countries cause. Any move to bring Data exclusivity and non violation must be opposed strongly.

18. India must pressurize for the removal of the uniform norm of patent duration of twenty years for all the patentable inventions. The importance of different technologies has different ramifications on the socio economic sphere. So with the help of likeminded countries separate terms for the patents based on sectors involved should be advocated.

19. The developed world has always succeeded in employing their dictates upon the developing and least developed world. The environmental sector and international arrangement on labour must be highlighted during the ministerial conference. The developing countries must fight hard for the inclusion of these two international issues to be included in the WTO ambit.

20. The recorded proof of the traditional knowledge must be kept and developed so as to help restraining the developed world from ensuring patent for the TK in other countries. It has also served the Indian interest in the past where Indian government had succeeded in cancelling the patents granted by US.

21. The patenting of micro organisms and non-biological processes should be excluded. Similarly in principle, bio-technological inventions should be made patentable. Patenting of life-form genes should be specifically excluded. There is no such direct obligation to grant patenting to life forms. The terms such as novelty, circumstances of national emergency and extreme urgency, and public non-commercial use should be defined clearly in the Bill. The working of patents through domestic firms should be made compulsory.

22. Provision for penalizing patent right holder for false infringement proceedings should be inducted in the Act so that the abuse of the section 104 A (reversal of burden of proof) may be avoided.