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RESEARCH ARTICLE

IPRS AND ENVIRONMENTALLY SOUND TECHNOLOGIES: POLICY OPTIONS FOR THE DEVELOPING COUNTRIES

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Abstract

In the present time, no other matter is of as much concern to the developed as well as the developing world alike, as global warming and climate change issues. The Paris deal concluded in December 2015 is the latest step that has been taken to restrict the rise in temperatures to below 2 degrees Celsius as compared to the pre-industrial levels. As like other countries, India has also submitted a set of Intended Nationally Determined Contributions (INDCs), which clearly show her intent of contributing to a better environment for the future generations. Access to smart innovation and technological development is crucial for achieving the outlined targets. Most of the research on Environmentally Sustainable Technologies (ESTs) takes place in the developed countries of Europe, Japan and the USA. This makes it difficult for the developing countries to access such technologies. The principle of Common but Differentiated Responsibility as followed under the Kyoto protocol, UNFCCC and the Rio declaration, mandates the developed countries to take the major responsibility of providing their counterparts in the developing world with financial resources and innovative technology. Inspite of this however, not much has been done by the technology leaders. Given the importance of R&D for such technologies, Intellectual Property Rights (IPRs), particularly patents, play a significant role in their innovation and diffusion process. Globally, IPRs in the current times, have been homogenized by the TRIPS agreement of the World Trade Organization (WTO). This does not leave much scope for India and other developing countries to frame their IPR rules individually to their own benefit. Thus, the only possible way through which the developing countries can circumvent the patented technologies, is by using the flexibilities permitted under TRIPS like compulsory licensing, exclusion from patentability and strict implementation of the patentability clause. This seems to be the need of the hour.

Introduction:-

After much deliberations and discussions, India finally has ratified the Paris Climate deal. The COP 21 to the UNFCCC held in Paris in December 2015 is the first ever legally binding global climate deal and aims to take steps necessary to restrict the rise in temperatures to below 2 degrees Celsius as compared to the pre industrial levels.

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India, like other parties, has submitted a set of Intended Nationally Determined Contributions(INDCs) which show her intent of following a path of low carbon emission. These include reduction in the emissions intensity of GDP by 33 to 35 per cent by 2030 from 2005 level as well as creating an additional carbon sink of 2.5 to 3 billion tonnes of CO_2 equivalent by 2030.

Central to the fulfillment of these declarations, for India as like for many other developing countries, is access to innovative and climate friendly technologies. With most of the R&D and innovations in climate friendly technologies or Environmentally Sound Technologies(ESTs) as they are usually called, remaining concentrated in a few developed countries of the world, transfer of technology from them to the developing countries is imperative . There is a strong case that Intellectual Property Rights(IPRs) particularly patents, restrict the access of the developing countries to innovative technologies. This is particularly true in the case of those technologies where the main role of technology development is on the private sector. EST is one such area. Most climate technologies are owned and developed by the commercial companies. IPRs can thus become important barriers for transfer of such technologies as any such transfer implies empowering the potential competitors.

How does IPRs restrict access to technology?

The channels through which patents can hinder the transfer of technology to the developing world are multiple. Firstly, patents can discourage innovation by the local firms in the developing countries due to fears of infringing the patents. Secondly, patents can make the technologies too expensive for the local firms to access. Thirdly, the patent holder can impose strict conditions on the patentee to restrict the use of his technology. These conditions may be difficult if not impossible to follow for the patentee firms. And lastly, the royalties to be paid by the patentee countries can deplete their foreign exchange resources greatly thereby deteriorating their balance of payments situation . At present, most of the patents on ESTs are held by firms in the developed countries specially USA, Japan and Europe. In a 2009 study(Lee et.al), patents in six energy technologies (wind, solar, photovoltaic, concentrated solar power, biomass-to-electricity, cleaner coal and carbon capture) were examined. It was found that the US, Japan and Germany are clear leaders in energy innovations. The study concluded that the flow and transmission of ESTs in the coming years will be completely dependent on the firms and organizations in the OECD countries

Technology transfer under Common but Differentiated Responsibility

The importance of technology transfer to the developing countries for mitigating the impacts of climate change was realized in the 1992 Rio Summit and the UNFCCC. As per Agenda 21, technology transfer along with financial resources formed the two key "means of implementation". Articles 4.3,4.5, 4.7 of the UNFCCC deal with provisions of technology transfer from the developed to the developing countries. Article 4.5 for example, states that developed country parties included in Annex II " shall take all practicable steps to promote , facilitate and finance as appropriate, the transfer of, or access to environmentally sound technologies and know-how to other parties, particularly developing country parties to enable them to implement the provisions of the convention". Most of the climate negotiations like the Rio summit, Kyoto protocol as well as the UNFCCC have emphasized on the concept of Common but Differentiated Responsibility(CBDR). This principle recognizes that the developed countries traditionally have been responsible for the greater part of the environmental damage and degradation. This, together with the understanding that the developing countries face a tradeoff between higher growth and environmental sustainability, places the onus of mitigating climate change mainly on the developed countries. As per the Rio declaration, "the states shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the earth ecosystem. In view of the different contributions to global environmental degradation, states have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and the technologies and financial resources they command". The UNFCCC mentions that the parties should take the responsibility of protecting the climate system "on the basis of equality and in accordance with their common but differentiated responsibilities and respective capabilities". When applied to the field of innovation, this principle of CBDR implies that the developed nations are expected to take the lead position in the development and transfer of the ESTs to the developing ones.

Inspite of such provisions however, not much success has been observed till now in matters of technology transfer to the developing countries. IPRs can be thought of as an important factor behind this. In a study on the transfer of technology to the Indian firms under the Montreal protocol, Watal(1998) concludes that IPRs have hindered the transfer of the necessary technologies to India either due to the high prices of patented technologies and/or due to

the conditionality attached by the Patent holders. South Korea and China also has had similar experience. The situation doesn't seem to have changed much from then.

What needs to be done?

As like the EST sector, the pharmaceutical sector too is dependent on the IPRs. Before independdence, India did not have a developed pharmaceutical sector. The domestic market was dominated by foreign firms. These inturn, preferred to import the drugs rather than manufacturing them locally in India. In all these years, the foreign firms held their control over the patents and IPRs. There was no or very little transfer of technology to the domestic firms. India at that time followed the pre- independence Patent and Design Act of 1911. Over the years, the need for attaining self-sufficiency in pharmaceuticals was increasingly being felt and modifying the IPR laws seemed to be the only way of achieving this. Hence, the 1970 Patent Act was enacted. This act called for replacing the patents on pharmaceutical products by patents on their processes of manufacture instead, which inturn allowed the indigenous firms to acquire manufacturing abilities through 'reverse engineering'. In retrospect, this act seems to have been the biggest factor behind the success and self sufficiency of the present day Indian pharmaceutical sector.

At present, the IPR scenario globally is guided by the TRIPS agreement of the WTO. The agreement which came into effect in 1995 provides for homogeneity in IPR laws in all member countries. TRIPS has no provision for patents on only the processes of manufacture. Thus, what was possible for the pharma sector in 1970, is no longer possible for the EST sector at present. This however does not in any case reduce the urgent need for transfer of ESTs from the developed to the developing world countries. The only possible way out thus, seems to be through the use of the flexibilities provided under TRIPS. TRIPS provides certain flexibilities which have been used by both the developed as well as developing countries over and again. These include exceptions to patent rights[1], strict implementation of the patentability criteria[2], grant of compulsory licenses[3] and parallel importation[4]. The provision of compulsory licensing has been used time and again by different countries to avert the barriers of IPRs. One way of using compulsory licenses could be to incorporate it into the laws of the land. For eg, the Clean Air act in the USA has provisions for compulsory licensing of patented technologies if they are imperative to meet the necessary standards. Under the act, no company is permitted not to share the technologies needed for meeting standards. In case it does, the government can issue compulsory licenses. India, as like other developing countries can also follow a similar process like the USA.

Conclusion:-

India's intention of contributing to a better environment gets reflected from her decision to ratify the Paris deal. However, achieving the targets of the INDCs remains contingent on her access to Environmentally Sound

[1] Article 30 of the TRIPS agreement allows for exceptions to the rights conferred by patents provided the exception satisfies the following conditions-1) it does not unreasonably conflict with a normal exploitation of the patent ,2) it does not unreasonably prejudice the legitimate interests of the patent owner, 3)takes into account the legitimate interests of third parties. Different countries can use these exceptions for circumstances which satisfy the three condtions. Thus, under these cases, the invention can be used by third party without the permission of the patent holder

[2] Article 27.1 defines the criteria for patentability as 1) novelty, 2)inventive step and 3) capable of industrial application. However, individual countries have the liberty of defining these criteria on any manner. This ensures them the power to take a narrower approach in granting patent rights. In the recent past, India has been severely criticized by the developed world, due to its strict criteria of patentability, particularly in pharmaceuticals. Such narrow definition of patentability is good for the country as it allows it to innovate through ' reverse engineering'.

[3] Article 31 of TRIPS permits the member states to allow the use of the patented inventions by third parties without the authorization of the patent holder through the grant of compulsory license. The grounds for which such licenses can be issued even though mentioned in the agreement are not restricted as confirmed in the Doha Declaration, 2001.

[4] Parallel imports refer to the products that are marketed by the patent owner or with the patent owner's permission in one country and imported into another country without the approval of the patent owner. As per the TRIPS agreement, a country allowing parallel imports cannot be dragged to WTO unless there is non discrimination involved.

Technologies in the future. With such ESTs remaining highly concentrated in a handful of developed countries till now, IPRs stand out to be a possible barrier to their transfer. Intellectual property rights, no matter how important they are, ought not be prioritized over human life and welfare. The need of the hour thus, is transfer of technology from the developed countries for which exploiting the flexibilities of the TRIPS agreement seems imperative for developing country like ours.

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References:-

1. Khor, M. (2012). *Climate Change, Technology And Intellectual Property Rights: Context And Recent Negotiations*.(Research paper no. 45). Geneva: South Centre
2. Srinivas, R.K (2009*). Climate Change, Technology Transfer and Intellectual Property Rights.*`(Discussion Paper No. 153).New Delhi: Research and Information System
3. Intergovernmental Panel on Climate Change.(2000). *Methodological and Technological Issues in Technology Transfer* .Geneva: IPCC
4. Copenhagen Economics and IPR company. (2009). *Are IPR a barrier to the transfer of Climate Change Technology?*. Copenhagen.
5. Gattari, P.(2013). The Role of Patent Law in incentivizing Green Technology. *Northwestern Journal of Technology and Intellectual Property, 11(2).*
6. TERI (2009). *Emerging Asia contribution on issues of technology for Copenhagen*.((Project Report No. 2008RS09). New Delhi: The Energy and Resources Institute
7. Lee, B., Ilian, I., and Felix, P. (2009). Who Owns Our Low Carbon Future? Intellectual Property and Energy Technologies. Retrieved from
8. https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Energy,%20Environment%20and%20Development/r0909_lowcarbonfuture.pdf
9. Watal, J., (1998). The issue of technology transfer in the context of the Montreal Protocol: Case Study of India In (Eds) edited by V. Jha, U. Hoffman, *Achieving Objectives of Multilateral Environmental Agreements: A Package of Trade Measures and Positive Measures.* Geneva: UNCTAD.