

GREENING PATENT LAW: THE SRI LANKAN PERSPECTIVES

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Abstract— *Environmental issues are one of the key areas addressed by technology. The patent system has the potential of enhancing technological development. However, despite the fact that promoting environmentally – valuable innovation has become a key area which requires national and international priority, the current patent law of Sri Lanka has failed to prioritize environmentally valuable patents. The recent Meetotamulla garbage dump disaster in Sri Lanka too reveals the non-availability of a potential tool to manage solid waste. Therefore this research aims to identify the existing patent legal framework of Sri Lanka with regard to green patents and its possibility to promote ‘green technology’. It is also aimed at scrutinizing how other jurisdictions have fast-tracked green patents and its relevance to Sri Lanka. Finally this research intends to propose a fast-tracked green system to Sri Lanka to promote environmentally valuable patents. In conducting the research, socio-legal approach was followed relying on both qualitative and quantitative data. Statutes and decided cases were used as primary sources and legal treatises, research journals and conference proceedings were used as secondary sources. Furthermore, information gathered through key informant interviews based on open ended questionnaires were utilized to glean empirical evidence. Moreover, comparative legal analysis concerning the legal framework in China and Sri Lanka was conducted in reaching the recommendations and conclusion. The findings reveal that the countries that have fast-tracked green patents, have achieved a significant development with regard to green technology. In achieving sustainable development, Sri Lanka too has a responsibility of addressing burning environmental issues such as energy efficiency, recycling and waste disposal. Therefore, an expedited system of green patents could be utilized as the initial effort in granting green patents in Sri Lanka.*

Keywords— Green Patents, Green Technology, Environment

I. INTRODUCTION

In a century where climate change has become the next great challenge for the humanities, innovation in green technologies (green tech) plays a crucial role in providing solutions to this problem. Intellectual Property law, more emphatically patent law is a great tool which promotes technological innovation. Green tech not only

delivers environmental benefits, but also it is considered as ‘the biggest economic opportunity of the 21st century’ (McDermott, 2008). Being in the right track of achieving sustainable development, several national intellectual property offices in the world have taken steps to fast-track green patent applications. Australia, Brazil, Canada, China, Israel, Japan, Korea, the UK and the US (US had a pilot programme with regard to green patents which was initiated on 7th December 2009 and discontinued in 2012) have initiated such fast-tracking programmes. This mechanism prioritizes the green technologies in the examination and reduces the time taken to grant a patent from several years to a few months while incentivising the green techs (Dechezleprêtre, 2013).

As far as the innovation landscape of Sri Lanka is concerned, Sri Lanka has failed to make significant strides in the innovation and technological fields in the past six decades (Sampath, 2013). Even though Sri Lanka has been receiving a considerable number of environmentally friendly patent applications which involve green tech compared to the total number of domestic applications, it has not taken any step to expedite examination.

In this background, part 2 of this paper will explain the methodology followed in carrying out the research. The definition of green patents will be discussed in part 3. Part 4 will discuss how other jurisdictions have implemented a fast-tracking programme for green patents and what lessons Sri Lanka can gain from such systems. Part 5 will discuss the Sri Lankan perspectives with regard to green patent applications. Part 6 will provide recommendations, followed by conclusion in part 7.

II. RESEARCH METHODOLOGY

The research largely followed the black letter approach using both qualitative and quantitative data. In so doing, primary and secondary sources consisted of statutes, books, journal articles, blogs and web articles and Intellectual Property Office Databases. The research also followed the socio-legal approach and thus, key informant interviews were conducted based on open ended questionnaires in order to gather empirical data. Personal interviews with practising lawyers, academia, inventors and officers at National Intellectual Property Office of Sri Lanka (NIPO) were conducted. Thusly, socio-

legal approach was followed, to include both theoretical and empirical aspects.

Furthermore, a comparative analysis was conducted to evaluate the fast-track programme introduced by other jurisdictions namely China and United Kingdom and to analyse what lessons Sri Lanka can gain from such systems.

III. GREEN PATENTS DEFINED

Before shedding some light on green patents, it is essential to understand the meaning of 'green tech'. No specific definition could be found for 'green tech'. Agenda 21 adopted by the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 used 'Environmentally Sound Technologies' to mean 'green tech' and defined it as technologies that 'protect the environment, are less polluting, use resources in a sustainable manner, recycle more of their wastes and products, and handle all residual wastes in a more environmentally acceptable way than the technologies for which they are substitutes' (Agenda 21, 1992). WIPO GREEN also corresponds to the same definition with regard to the scope of technologies ought to be traded under that (WIPO, 2012). Hence, 'virtually any technology can become 'environmental' when so applied' and the technology in the present context 'tends to be environmentally positive to the extent that it is less pollution- and resource-intensive' (Heaton Jr, 2015). On this basis, it is arguable 'green tech' is particularly concerned about protecting the environment.

Having identified the meaning of 'green tech' it is evident that 'green patent' is granted for the environmentally friendly technologies. In terms of the definitions of many IP offices in the world, it is generally a patent which addresses the issues for instance, energy efficiency, alternate fuels, wind, solar, wave and nuclear energy, energy storage, waste disposal and recycling (Jinqian and Chong 2015).

IV. GREEN PATENTS IN UK AND CHINA

Several National Intellectual Property Offices in the world have initiated fast-tracking programmes for green technologies. This section of the paper focuses on how two such programmes have helped to expedite green patent examination.

A. *The United Kingdom*

The United Kingdom Intellectual Property Office (UKIPO) was the first country to introduce a fast-tracking programme for green technologies in 2009. This allows the applicant to request for expedited examination if the invention involves an environmental benefit. The applicant has to indicate in writing how his application becomes environmentally friendly and which action he wishes to expedite; that is whether search, examination, combined search and examination, and/or publication (Intellectual Property Office UK, 2014). In such a way the examination duration will be reduced from two to three years to nine months and it is free of charge. However, if it is directly related to environment such as solar panel, a brief statement would suffice. If not, a detailed explanation is required (Intellectual Property Office UK, 2014).

In UK, it is evident that all environmentally friendly inventions are eligible to participate in the fast-track program. 20.9% inventions out of the eligible inventions have requested for green patents as of 2012 since 2009 (WIPO, 2013). It was the highest percentage reported in a country that has the accelerated procedure. This is probably because, the accelerated examination in UK does not require any prior art search and charges no additional fee for accelerated examination (WIPO, 2013). Japan Patent Office requires a prior art search report creating an additional cost for inventors and only 1.4% of inventions out of the eligible patents have requested for green patents. This demonstrates that UK has not only fast-tracked green patent examination, but also encompasses the features that encourage the inventors to glean advantages of accelerated examination. Moreover, 76% requests for green patents were UK based. During this period from 2009 to 2012 only 6 Chinese applications could be found in UK for accelerated examination (Dechezleprêtre, 2013). This reveals that the benefit of fast-track programme has actually gone to the domestic users rather than foreign applicants.

B. *China*

China has been leading in the global energy race by attracting \$54.2 billion worth investments in 2013 in the clean energy market (The Pew Charitable Trusts, 2014). Being one of the fastest growing economies in the world China has a major concern over climate change. China became the second BRICS (Brazil, Russia, India, China and South Africa) country to introduce the green patent fast-track programme in August 2012.

In China, the applications that are eligible for prioritized examination include energy saving, environmental protection, new energy vehicles, low carbon technologies and resource-saving solutions that support environmentally-friendly development (SIPO Order No.

65 Article 4 (1) and (2)). The request for prioritized examination has to be submitted along with a search report (SIPO Order No, 65, 2012). Article 2 indicates that examination will be finished within one year.

The Chinese administrative measures on green patents reveal that the privilege of prioritized examination is granted not only to inventions with green tech, but also to applications that include new generation of information technology, biology, high-end equipment manufacturing, new material and also other patent applications that materially affect the national or public interest and require prioritized examination (SIPO Order No. 65 Article 4). However, if Chinese Patent Office has signed a bilateral or multilateral agreement with a patent office of another country which allows prioritized examination, priority is given to such agreements (SIPO Order No. 65 Article 3).

Unlike the UK green channel, Chinese prioritized examination is not limited to green tech. Moreover, even though the Chinese system requires a substantive examination report when applying for accelerated examination, there is no such requirement in UK. Thus it is arguable that simplicity of the UK system is the reason to have a higher number of green patent applications. In this regard, UK fast-track programme is more encouraging than the Chinese programme. However, the Chinese patent acceleration examination system is still at its infancy to identify its pragmatic situation when compared to UK.

V. THE SRI LANKAN PERSPECTIVES

A. *The Sri Lankan Patent Legal Framework*

The advent of law of patents to Sri Lanka occurred in 1859 with the British Inventors' Ordinance (Hewage, 2015). It was followed by the Code of Intellectual Property Act No. 52 of 1979. The current governing law is the Intellectual Property Act No. 36 of 2003. This Act was enacted in compliance with the Agreement of Trade Related Aspects of Intellectual Property Rights of 1994 (TRIPS). With regard to patents, the Act provides provisions concerning definitions, right to a patent, requirements of application and procedure for grant of a patent, duration of a patent, rights of owner of a patent, assignment and transmission of patent applications and patents, license contracts and surrender and nullity of patents. Nevertheless none of the above chapters provide any provision to expedite the patent applications that carry environmentally friendly inventions. Draft Amendment Bills which came in 2012 and the Amendment Bill which was proposed in 2017 similarly do not contain any provision that deals with environmentally friendly patents.

B. *Why Sri Lanka Should Expedite Green Patent Examination*

It was evident in the previous section that Sri Lanka does not possess any legal mechanism to expedite patent applications which carry environmentally friendly inventions. This does not mean that Sri Lanka is lacking inventions with green technology. The empirical evidence gathered from patent database suggests that domestic inventors have contributed to the fields of generating electricity from wave energy, solar energy, energy saving, environment pollution reduction and waste management (The categorization is based on a patent database search done by the author. National Intellectual Property Office of Sri Lanka (NIPO) does not have any mechanism to categorize such applications. Therefore a title search was done by the author using the data base of NIPO to find out in which green technological areas the applications have been received). In these areas of green tech, approximately 50% of the patent applications were local ones. Thus it could be argued that a fast-tracked green patent system has the potential of contributing a lot in the area of green tech.

Moreover, it was evident that in very rare cases based on the special requests made by the inventors, the examination will be expedited by the NIPO. However this is not specifically for 'green tech' and even if the invention contributes to protect the environment, it may go with the time taking examination process. Generally the examination process takes from three months to five years. Thus, to incentivise the inventors in the field of 'green tech', a fast-tracked examination is of huge significance. A patent is a reward to the inventor or the creator (Cottier and Germann, 2008) in terms of the theory of 'reward by monopoly'. Environment being an imperative part of human life, it is logical to argue that there must be a mechanism to fast-track green patent applications since it would incentivize those who invent in the area of green tech.

Compared to the developed countries in the world Sri Lanka receives only a few patent applications per year. Hence one counter argument that may arise against the implementation of a fast-track programme is that, Sri Lanka does not need such a mechanism for green tech. But this stands contrary with the precautionary principle. Until the government gives priority to environmentally friendly inventions no one would specifically focus on such inventions. Hence, as a precautionary method when dealing with the environment, the country can allow 'green tech' to enter the market and the society at large and avoid the potential harms to the environment.

Meetotamulla garbage dump tragedy which took place recently, elucidates that Sri Lanka is lacking a suitable creative mechanism to manage solid waste. It does not mean that Sri Lankans have not invented inventions

concerning solid waste management. The data gathered from Patent Database suggests that many inventions that contain 'green tech' are still stuck in the patent examination process. Meetotamulla disaster opened the eyes of all Sri Lankans and made us think that it is now high time to give priority to inventions that carry 'green tech' so they can come into utilization soon.

According to the commercialization theory, a patent provides an incentive to invest. An invention with green tech has a friendly impact on the environment if invested as soon as possible, because the impact of human activities on environment is irreparable. Thus fast-tracking would be an incentive to commercialize in future.

Even though some scholars comment that the inventors sometimes prefer to keep their patent application in the examination process so long, (Dechezleprêtre, 2013) the UK scenario provides evidence that there is a demand for accelerated examination too. In UK the domestic applicants represented the majority in the total number of green patent applications from 2009 to 2012. Therefore, it is arguable that making aware about this type of programmes has the potential of increasing the participation which in the same way can be applied in Sri Lanka.

The above discussion demonstrates that despite the fact that Sri Lanka is a developing country, viewed through the lens of environment, introducing a fast-tracked green patent system can be justified in Sri Lanka.

VI. RECOMMENDATIONS

It was evident in the above discussion of this paper that Sri Lankan Intellectual Property Law regime does not address the issue of prioritization of green technology in patent examination. However, majority of the patent applications received by the NIPO include green tech. Therefore, being in the right direction of addressing the global issue of climate change, Sri Lanka too has a responsibility to fast track examination of the green patent applications. As in UK, the eligibility criteria has to be all 'environmentally friendly' inventions. That is because the Chinese categorization would create confusions among the inventors as to whether their invention is eligible or not. Furthermore, as far the Sri Lankan innovation field is concerned, an additional fee for accelerated examination would not create any demand for green patents. As discussed earlier in this paper, Sri Lankan inventors are much more enthusiastic in the areas such as wave energy, solar energy, energy saving, environment pollution reduction and waste management. Unlike UK and China Sri Lanka does not receive a large number of patent applications. Therefore it is adequate to mention that the invention is

environmentally friendly or explain how it becomes environmentally friendly in the application. An additional step to submit a search report will not attract the Sri Lankan inventors in a context where only a few have been able to glean the advantages of the regular procedure even.

In achieving this task in Sri Lanka specific regulations can be brought in prioritizing environmentally friendly patent applications. It must be further mentioned that, even though fast-tracking examination is appropriate as the first step, research funding, waiver of fees, disclosure of environmental impact in application process may also be taken into account in achieving sustainable economic growth.

VII. CONCLUSION

Climate change is one of the major global issues that should be addressed before long. Intellectual Property Law could be identified as a tool which has the potential of contributing to the elimination of human activities on the environment by promoting green technological innovation. Thus whether it is developed or developing, each country has a responsibility to shape its law for the protection of environment. The need for more environmentally friendly inventions was evident by the recent Meetotammulla incident too. Australia, Brazil, Canada, China, Israel, Japan, Korea, the UK and the US have initiated fast-tracking programmes in patent examination.

Even though Sri Lanka is a developing country, it too has a considerable number of environmentally friendly inventions. Hence, Sri Lanka can introduce a fast-tracked green patent system as a significant step in working towards the right track of expediting green patent examination. Anything done for the protection of environment will ultimately be for the higher benefit of humans at large.

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