

## 5. South Asian Region and Second-Tier Protection

*'New models of intellectual property are needed to protect and promote local knowledge in innovations'.*

Anil Gupta<sup>651</sup>

As observed by Anil Gupta, one of the protagonists of the innovation movement in India, we should go beyond conventional models of IP rights to give innovators a true stake in their inventions.<sup>652</sup> The South Asian sub-continent is home to 22 percent of the world's population and is a unique region endowed with rich natural and human resources. Countries in the South Asian region consist of eight middle and low income economies including India, Pakistan, Bangladesh, Afghanistan, Sri Lanka, Nepal, Bhutan and the Maldives. Most strikingly, with the exception of certain technology areas in India (i.e. software and pharmaceutical industries), almost all countries in South Asia are less technologically advanced economies. When compared with the technological and economic development of the Newly Industrializing Countries (NICs) in East Asia, in particular the 'East Asian Tigers', the South Asian countries lag far behind their East Asian counterparts.<sup>653</sup> Experience from East Asia, especially from South Korea and China, has proven that innovation at all levels should be rewarded in order to create an innovation culture in a country. Thus, the time is ripe for developing nations in the South Asian region to create an eco-system for fostering minor and incremental innovation in or-

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651 A Gupta, 'How to Protect the Inventions of Poor' (2 May 2012) Science and Development Network, available at: <<http://www.scidev.net/en/science-and-innovation-policy/supporting-grassroots-innovation/opinions/how-to-protect-the-inventions-of-the-poor.html>> (accessed 22 May 2012).

652 Ibid.

653 NICs are countries that have not yet reached the developed country status, but in a microeconomic sense, they have outpaced their developing counterparts. The term 'East Asia Tigers' began to be used in the 1970s for countries which had gained global prominence with rapid economic growth since the 1960s. See BMK Mwiya, 'Trends of Patent and Utility Model Activities in Asia and Africa: A Comparison of Regional Innovation, FDI and Economic Activity' (2012) 3 WIPO Journal 259. The four original 'tiger' economies are Hong Kong, Singapore, South Korea and Taiwan; later Indonesia, Malaysia and Thailand were added to the list.

der to move up the innovation ladder. Interestingly, though, no country in the South Asian region has experienced an STP regime in its IP law landscape.

It may be argued that there exists a protection gap between the patent and industrial design laws for incremental and minor inventions in the region. Obviously, there is no adequate protection for incremental advances in technology and such innovations fall through the protection net of IP law due to their lower level of inventiveness. Without an adequate protection mechanism such innovations may not be properly exploited and appropriated. As various studies have shown, the majority of innovations from developing countries are concentrated on the low level of technologies and often involve minor adaptations or improvements of existing products and processes which mostly emanate from the SME sector.<sup>654</sup> Admittedly, the SME sector in South Asia is affected by this scenario. At least in recent years, a wave of ideological current in favour of an STP regime is sweeping through the Indian sub-continent. And most encouragingly, the concept of utility models or petty patents is under consideration at least in three jurisdictions in the region. It is widely believed that a legal framework for an STP regime would emerge sooner or later from one of these countries. Specifically in 2011, the Indian government introduced a policy document in the form of a Discussion Paper proposing UM protection for India. Further, in the year 2013, the Pakistani government drafted a UM Bill based on a WIPO study carried out in 2012. Even though the strengths and weaknesses of an STP regime may fiercely be contested, the experience from developed and developing countries lends credibility to such a system in encouraging less advanced, but locally useful innovations. Since a detailed analysis of innovation and the legal landscape of all the jurisdiction falls beyond the scope of this research, this chapter only deals with the Indian perspectives of the protection of incremental innovations and a brief account of Pakistani developments in the direction of an STP regime.

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654 See C Correa, 'Designing Patent Policies suited to Developing Countries Needs' (2008) 10/2 *Econômica*, Rio de Janeiro 82, 89. See also WIPO, 'Intellectual Property (IP) Rights and Innovation in Small and Medium-sized Enterprises' (2004) WIPO Working Paper August 10/2004, 5-6, available at: <[http://www.wipo.int/export/sites/www/sme/en/documents/pdf/iprs\\_innovation.pdf](http://www.wipo.int/export/sites/www/sme/en/documents/pdf/iprs_innovation.pdf)> (accessed 10 June 2011).

5.1. Indian Perspectives

*'Today we [Indians] are a nation that has barely scratched its potential'*  
Nandan Nilekani<sup>655</sup>

The Republic of India is the largest democracy in the world, consisting of 28 provincial States and 7 union territories.<sup>656</sup> Since its economic liberalization in 1991, India has achieved remarkable economic growth. From a global perspective, India is the economic giant in South Asia with a large market. Moreover, India is a leading member of the 'BRICS' group of countries, the world's five major emerging economies in the 21<sup>st</sup> century.<sup>657</sup> Like other South Asian countries, the Indian legal system has been greatly influenced by the British Common Law tradition. The same is certainly true for the Indian legal framework of IP protection. From a historical perspective, the existence of IP laws in India can be traced back to the mid-nineteenth century when the first patent law was enacted in 1856 to grant certain exclusive privileges to inventors for a period of fourteen years.<sup>658</sup> That law was based on the British Patent Law of 1852.<sup>659</sup> Emerging from British colonial domination, in the last sixty years India has gradually reformed its IP legislation, and in the 1990s, India also attempted to bring its IP regime in conformity with global developments.<sup>660</sup> In that

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655 N Nilekani, Advantage India, *The Financial Express* (21 December 2008), available at: <<http://www.financialexpress.com/story-print/400976>> (accessed 10 June 2011). See generally, N Nilekani, *Imagining India: The Idea of a Renewed Nation* (Penguin 2008). See also D Llewelyn, *Invisible Gold in Asia* (Marshall Cavendish 2010) 188.

656 See S Baldia, 'India' in C Heath (ed), *Intellectual property law in Asia* (Kluwer Law International 2003) 431.

657 The term 'BRIC' was first coined by Jim O'Neill in 2001 to refer Brazil, Russia, India, and China. South Africa was later added to that list. This group represents five emerging world economic powers.

658 VK Unni, 'Indian Patent Law and TRIPS: Redrawing the Flexibility Framework in the Context of Public Policy and Health' (2012) 25 *Global Business & Development Law Journal* 323, 323-324.

659 NR Subbaram, 'Intellectual Property System in India' (1997) 2 *Journal of Intellectual Property Rights* 10.

660 S Baldia, 'India' in C Heath (ed), *Intellectual property law in Asia* (Kluwer Law International 2003) 435.

sense, the Indian IP scenario has undergone a sea change in the past decades.<sup>661</sup>

The main legal instruments that govern the protection of inventions are the Patent Act of 1970 (as amended in 1999, 2002 and 2005) and the Design Act of 2000. The underpinning philosophy of the Indian Patent Act, according to the *Ayyangar Report* which led to its introduction, was to accommodate the country's inexperienced industrial sectors and to encourage and reward inventors.<sup>662</sup> The current Indian Patent Act requires an invention to meet the universal novelty standard and a high threshold of inventive step.<sup>663</sup> Pursuant to Section 2(fa), the inventive step is defined as a 'feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art'. This inventive step criterion needs an invention to fulfill not only 'technical advance', but also 'economic significance'. The global and stringent nature of Indian patent law, in effect, prevents low level inventions receiving patent protection. Moreover, the universal novelty standard and the exclusion of functional innovations from protection exclude technical innovations of incremental nature from protection under the design regime.

Even though some would argue today that India is on the threshold of emerging as an economically and technologically developed nation, most IP scholars from India disapprove of such a claim. As Kumar has observed, 'even though the domestic chemical and pharmaceutical industries have developed in their capabilities considerably over the past three decades, there was no mechanism for encouraging minor adaptations

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661 S Kumar, 'Does Introduction of a Utility Model Protection Regime make Sense in India' (2011) Intellectual Property Watch, available at: <<http://www.ip-watch.org/2011/07/13/does-introduction-of-a-utility-model-protection-regime-make-sense-in-india/>> (accessed 2 May 2012). The diverse legislations regarding the different categories of IP in India are: The Patents Act of 1970, The Trade Marks Act of 1999, The Copyright Act of 1957, The Designs Act 2000, The Geographical Indications of Goods Act, 1999, The Protection of Plant Varieties and Farmers' Rights Act 2001, The Semi Conductors Integrated Circuits Layout – Design Act 2000.

662 NR Iyyangar, *Report on the Revision of the Patent Law* (Ministry of Commerce and Industry/India 1959). See also VK Unni, 'Indian Patent Law and TRIPS: Redrawing the Flexibility Framework in the Context of Public Policy and Health' (2012) 25 Pacific McGeorge Global Business & Development Law Journal 323.

663 See The Patents Act of 1970, as last amended in 2005. Section 2(g) for novelty and Section 2(ja) for the inventive step requirement.

through domestic firms. This difference could perhaps explain the not so encouraging performance of Indian enterprises in other industries'.<sup>664</sup> Moreover, despite the fact that India's post-independence technology policies relied heavily on publicly funded research for indigenous technological capacity building and technology development, such publicly funded research has failed to adequately contribute to India's industrial catch up.<sup>665</sup> It is certainly true that India has made some impressive strides since its independence in some areas such as Information Technology (IT), pharmaceuticals, and the agro-chemical industrial sector etc. Most commentators, however, argue that despite India's rapid economic progress and technological proficiency, it has failed to produce any real innovation on its own soil.<sup>666</sup> One possible explanation for this would be that the effectiveness of patent protection varies from industry to industry and inventive activity is sensitive to protection only in a few industries such as the chemical and pharmaceutical industries.<sup>667</sup> Another more likely explanation may be that, unlike in East Asian countries viz. Japan and South Korea, India did not provide encouragement to adaptive and minor inventive activity of domestic enterprises through a utility models system, although the IP regime is only one of the determinants of the technological capability building.<sup>668</sup> In fact, empirical evidence from previous studies suggests that the East Asian economies have greatly benefited from UM regimes at the early stages of their industrial development.<sup>669</sup>

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664 N Kumar, 'Intellectual Property Rights, Technology and Economic Development: Experiences of Asian Countries' (2003) Commission on Intellectual Property Rights Study Paper-1b, 6.

665 AS Ray and S Saha, 'Patenting Public Funded Research for Technology Transfer: A Conceptual-Empirical Synthesis of US Evidence and Lessons for India' (2011) 14/1 Journal of World Intellectual Property 75, 75.

666 See D Llewelyn, *Invisible Gold in Asia* (Marshall Cavendish 2010) 189.

667 N Kumar, 'Intellectual Property Rights, Technology and Economic Development: Experiences of Asian Countries' (2003) Commission on Intellectual Property Rights Study Paper-1b, 3-6.

668 Ibid.

669 YK Kim and others, 'Appropriate Intellectual Property Protection and Economic Growth in Countries at Different levels of Development' (2012) 1/4 Research Policy 358, available at: <<http://www.sciencedirect.com/science/article/pii/S0048733311001715>> (accessed 2 June 2012). See also, L Kim, *Technology Transfer and Intellectual property rights: The Korean Experience* (2003) ICTSD-UNCTAD Issue Paper No.2, 9.

### 5.1.1. Empirical Analysis of the Indian Patent System

The number of patent filings and grants offers a telling glimpse of the use of the current patent system by Indians and foreign applicants. In fact, the number of patent applications filed per year is a good metric of measuring the innovation potential of a country, and as seen below, India fares quite poorly when compared to many other developed and developing countries.<sup>670</sup> Most notably, domestic applications have recorded a slow growth during this period. Does this mean that Indians are less creative? The answer is probably no, but it is true that India is lagging behind many of its East Asian counterparts in terms of the total number of patent applications. An analysis of patent filing trends shows that the majority of patent filers are foreign residents and they make around 80 percent of the total applications every year. One possible reason for such low patenting activities in India may be attributed to the lack of awareness. Nevertheless, it is clear that not many players in the industrial sectors have made good use of the country's patent mechanism.

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670 A Aggrawal and B Rawat, 'The Indian Patent System Should Grant Utility Model Patents' (2011) Entrepreneurs website, available at : <[http://www.entrepreneurwebsite.com/2011/09/08/the-indian-patent-system-should-grant-utility-model-patents/?goback=%2Egde\\_3297732\\_member\\_69774577](http://www.entrepreneurwebsite.com/2011/09/08/the-indian-patent-system-should-grant-utility-model-patents/?goback=%2Egde_3297732_member_69774577)> (accessed 2 May 2012).

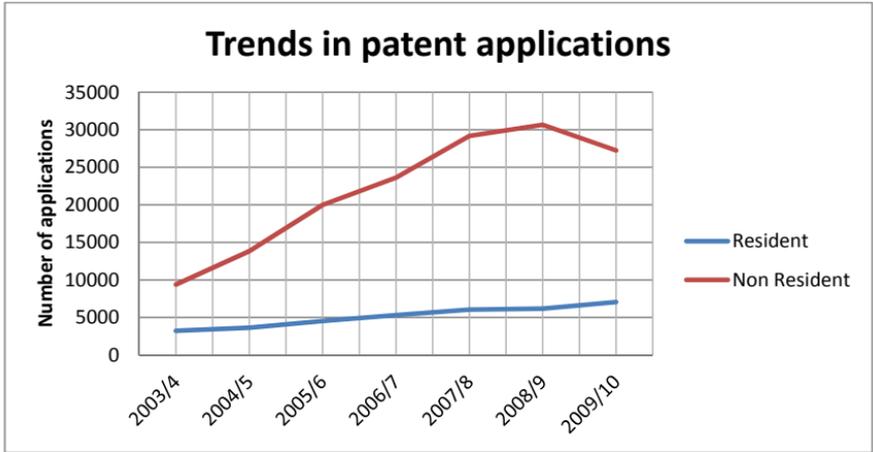
Table 5.1: Patent Applications Received from 2003-2010

Year	Patent Applications				
	Resident	%	Non Resident	%	Total
2003/4	3218	25,5%	9395	74,5%	12613
2004/5	3630	20,8%	13836	79,2%	17466
2005/6	4521	18,4%	19984	81,6%	24505
2006/7	5314	18,4%	23626	81,6%	28940
2007/8	6040	17,2%	29178	82,8%	35218
2008/9	6161	16,7%	30651	83,3%	36812
2009/10	7044	20,5%	27243	79,5%	34287

(Source: Based on data from Annual Reports of the Controller General of Patents, Designs, Trademarks and Geographical Indication)

Obviously, the total number of patent applications has gradually increased over the years between 2003 and 2010 and it may be seen as almost a three-fold increase from 2003. Viewed from a different perspective, even domestic patent filings are several times less numerous than foreign applications, overall patent activities in India have gradually increased in recent years. As a positive side of this development, the number of patent filings by foreign firms highlights the country's attractiveness as a market for technologies and inventions. It is also a good indication that rapid technological growth is taking place. At the same time, a comparative view with neighboring China shows that these patent filings are far from satisfactory. Arguably, India needs to take some concrete steps to encourage local innovation in order to boost IP creation activities in the country.

Figure 5.1: Trends in Patent Applications, 2003-2010



(Source: Based on data from Annual Reports of the Controller General of Patents, Designs, Trademarks and Geographical Indication)

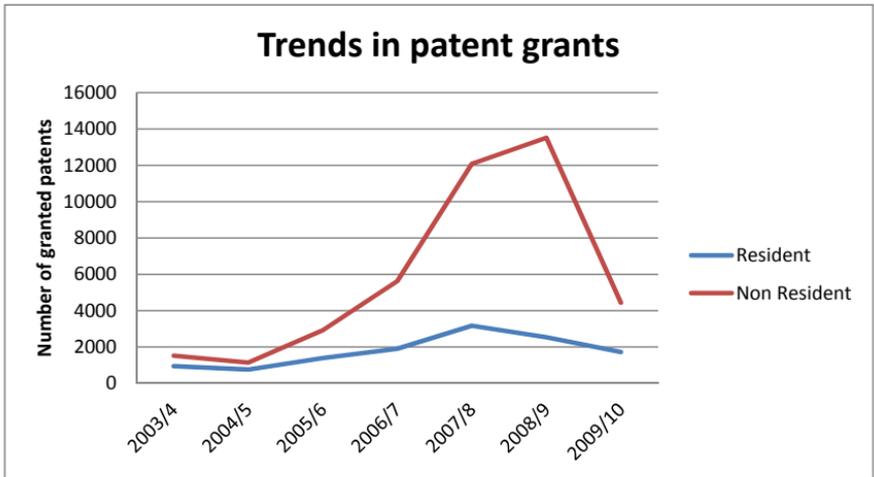
As presented in Table 5.2, the patent system in India is overwhelmingly used by foreign individuals and firms. Obviously, the situation has not changed much from what the *Ayyangar Report* observed as far back as 1959. At that time, the share of patents held by foreign firms accounted for 80-90 percent of all patents issued in India. According to recent data from the IP India, more than 70 percent of all patents granted in India are owned by non-residents. As shown in Table 5.2, the percentage of patents granted to Indian applicants has gradually decreased from 2003 to 2010, except in 2004. Most strikingly, the percentage has fallen to the lowest level in 2008/9, with only 15 percent of patent grants to Indians. Not surprisingly, many commentators have described India as a patent granting country rather than a patent producing one, emphasizing that there is a clear need to encourage more domestic innovations in India.

Table 5.2: Patent Grants from 2003-2010

Year	Patent Grants				
	Resident	%	Non Resident	%	Total
2003/4	945	38,3%	1524	61,7%	2469
2004/5	764	40,0%	1147	60,0%	1911
2005/6	1396	32,3%	2924	67,7%	4320
2006/7	1907	25,3%	5632	74,7%	7539
2007/8	3173	20,8%	12088	79,2%	15261
2008/9	2541	15,8%	13520	84,2%	16061
2009/10	1725	28,0%	4443	72,0%	6168

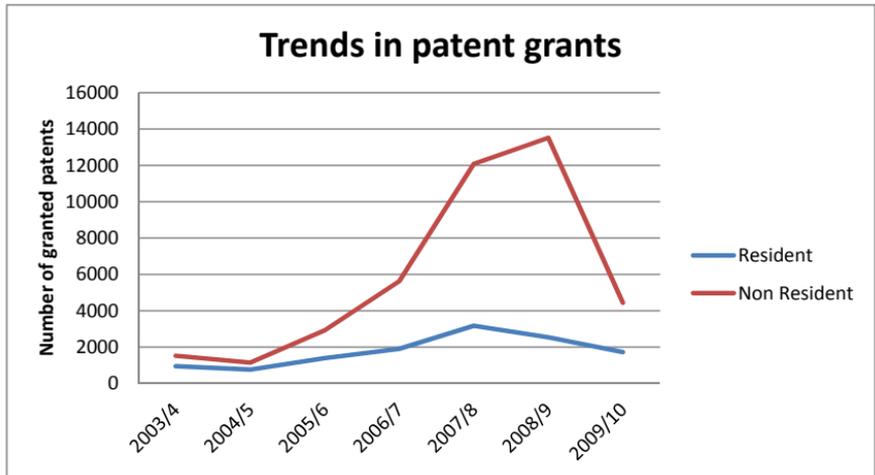
(Source: Based on data from Annual Reports of the Controller General of Patents, Designs, Trademarks and Geographical Indication)

Figure 5.2: Trends in Patent Grants, 2003-2010



(Source: Based on data from Annual Reports of the Controller General of Patents, Designs, Trademarks and Geographical Indication)

Figure 5.3: A Comparative View on Patent Applications and Grants from 2003-2010



(Source: Based on data from Annual Reports of the Controller General of Patents, Designs, Trademarks and Geographical Indication)

As shown in Figure 5.3, the grant rate of patent applications from 2003 to 2010 remains below 40 percent in India. It is rather disappointing to learn that such a large number of patent applications are rejected at the Indian patent office. Most probably, the majority of them might have failed to reach the strict patentability criteria prescribed in the current Patent Act. From this data it can be reasonably concluded that the high inventive step requirement poses a great barrier for many inventions emanating from the innovation landscape of India. Perhaps most importantly, if the Indian IP legal framework has provided for a UM or petty patent system, a large part of these rejected applications would have been granted an IP right, thereby incentivising such inventive activities in the country. From a policy perspective, most applications that are currently being rejected for not meeting the stringent inventive step requirement would be granted a patent right if there was an STP regime in place.

5.1.2. Protection of Incremental Innovations in India

As interpreted through the lens of the *Ayyanger Report*, the patent system is the most desirable method of encouraging inventors and rewarding them but, at present, Indian inventors take a very small share in the benefits of the system.<sup>671</sup> These observations made in the *Ayyanger Report* also find empirical support from our analysis in the previous section. Nevertheless, there is little reason to conclude that Indians are less innovative. An important reason why there is low domestic participation in patenting is that there is no protection for less technologically advanced inventions in India. A large majority of innovations of SMEs and creative solutions from the rural hinterland are excluded from patent protection. Conversely, it might still be argued that incremental innovation should not be protected at all and deserves to be in the public domain. Obviously, the implementation of stringent patentability criteria makes the patent regime inaccessible for low level simple innovations. Most importantly, Indian IP legal framework does not provide for an STP system such as utility models or petty patents, on one hand. On the other hand, Section 3 and 4 of the Indian Patent Act include a bar on patenting a mere discovery of new forms of known substances, mere arrangement or rearrangement or duplication of known devices, and methods of agriculture or horticulture and inventions which are in effect traditional knowledge.<sup>672</sup> Thus, incremental and minor innovations are specifically excluded from the protection schemes of the current Indian Patent Act.

Critics have pointed out that in particular the patentability criteria under Section 3(d) may even be viewed as an inventive step plus requirement.<sup>673</sup>

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671 KS Kardem, 'Patent activities in India: An Overview' (1997) 2 May, Journal of Intellectual Property Rights 113, 113.

672 Department of Industrial Policy and Promotion, Discussion Paper on Utility Model(23 May 2011) para 6, available at: <[http://dipp.gov.in/English/Discuss\\_paper/Utility\\_Models\\_13May2011.pdf](http://dipp.gov.in/English/Discuss_paper/Utility_Models_13May2011.pdf)> (accessed 30 December 2011). See Section 3(d) which states that 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 of the mere use of a known process, machine or apparatus cannot be considered as an invention. See also, Section 3 (f) of the Indian Patent Act.

673 A Aggrawal and B Rawat, 'The Indian Patent System Should Grant Utility Model Patents' (2011) Entrepreneurs website, available at: <[http://www.entrepreneurswebsite.com/2011/09/08/the-indian-patent-system-should-grant-utility-model-patents/?goback=%2Egde\\_3297732\\_member\\_69774577](http://www.entrepreneurswebsite.com/2011/09/08/the-indian-patent-system-should-grant-utility-model-patents/?goback=%2Egde_3297732_member_69774577)> (accessed 2 May 2012).

Some commentators including Anil Gupta have lamented over the non-availability of a protection mechanism for incentivising incremental and grassroots innovations in the legal landscape of India. Grassroots innovations are the innovative activities of improving products, techniques and crafts in a random and extensive way by people at the grassroots who have grasped the corresponding techniques and skills. It is a flash in the common people and an embodiment of their wisdom.<sup>674</sup> Obviously, there is no supporting climate for such innovation. Moreover, Mashelkar, a leading Indian IP scholar, has repeatedly emphasized the need of having shorter duration patents for smaller innovations, including specific improvements in traditional knowledge.<sup>675</sup> The system he advocates involves a simple registration-cum-petty patent system where the inventive threshold would be lower, but even a small improvement in material, process, product or use could be protected at much lesser costs and for a shorter duration.<sup>676</sup> Anil Gupta has also followed the same line in arguing that India needs to develop a low transaction cost protection system for small innovators and local communities to make the IP system accessible, based on the Australian innovation patent system.<sup>677</sup> In response to the perceived protection gap and the claim of insufficient incentives for incremental innovations, the Indian government recently took the initial steps in addressing such concerns through the legislative route.

### 5.1.3. DIPP Discussion Paper

Far too long, Indian scholars have criticized policymakers for not taking into account the special features of Indian intellect, knowledge base and capabilities, nor the ground realities of the pattern of innovations taking

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674 L Hua, Y Jiang and Y Lin, 'Grassroots Innovation, Characteristics, Status Quo and Suggestions' (2010) Proceedings of the 7th International Conference on Innovation & Management 2048.

675 RA Mashelkar, 'An Eminent Scientist's New Road-map for India', *GoodNewsIndia* (November 2000) available at : <<http://www.goodnewsindia.com/Pages/content/inspirational/mashelkar.html>> (accessed 30 January 2011).

676 Ibid.

677 AK Gupta, 'Rewarding Traditional Knowledge and Contemporary Grassroots Creativity: The Role of Intellectual Property Protection' (Centre of International Development, Harvard University 2000) 41-42, available at: <[http://www.hks.harvard.edu/sustsci/ists/TWAS\\_0202/gupta\\_0500.pdf](http://www.hks.harvard.edu/sustsci/ists/TWAS_0202/gupta_0500.pdf)> (accessed 15 May 2012).

place in the country when drafting IP laws.<sup>678</sup> In view of such critiques, on 13 May 2011, India's Department of Industrial Policy and Promotion (DIPP) released a discussion paper on the possibility of introducing a lower level patent system in India.<sup>679</sup> The discussion paper has admitted that the Indian Patent Act, with its high standard of patentability, may inhibit the protection of creeping and incremental innovation which are no less worth and useful to society.<sup>680</sup> In its DIPP Discussion Paper, the government has observed:

'The IP regime in India has undergone significant changes after India's accession to WTO in 1995. After an intense national debate a number of safeguards were incorporated in the amendments made to the Patents Act. These safeguards were designed to prevent evergreening of patents. They included a higher threshold for inventive step and a prohibition from patenting new forms of known substances which do not result in the enhancement of the known efficacy of these substances. Such a stance has been consistent with our obligations under TRIPS and seeks to meet our developmental objectives. While we are firmly committed to resist dilution of patent standards, the need to support the widest possible spectrum of innovative activity in India today, has to be recognized. This Discussion Paper approaches this challenge by examining the viability of introducing utility models into the IPR regime. Utility models are a framework for providing limited protection to those innovations which may not meet the standards of the Patents Act and yet are commercially exploitable and socially relevant'.<sup>681</sup>

Most encouragingly, the Discussion Paper recognized the important role of creeping and incremental innovation has in the innovation landscape of India. Such inventions, though technically less complex than those eligible for a patent, may be exploited by SMEs which in the spirit of *jugaad* technology (a creative or innovative idea producing a quick, alternative way of solving or a fixing a problem), may make minor improvements and adap-

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678 MD Nair, 'A Case for Grant of 'Petty Patents', *The Hindu* (New Delhi, 10 May 2001) available at: <<http://hindu.com/2001/05/10/stories/0610000h.htm>> (accessed 15 June 2012).

679 P Ollier, 'Practitioners back Utility Model Patents for India' (July 2011) *Managing Intellectual property*, available at : <<http://www.managingip.com/Article/2848140/Practitioners-back-utility-model-patents-for-India.html>> (accessed 15 June 2012).

680 Ibid.

681 Department of Industrial Policy and Promotion of India, 'Utility Models' (2011) Discussion Paper-23 May 2011, para 3-4. available at: <[http://dipp.gov.in/english/Discuss\\_paper/Utility\\_Models\\_13May2011.pdf](http://dipp.gov.in/english/Discuss_paper/Utility_Models_13May2011.pdf)> (accessed 30 December 2011).

tations to existing products.<sup>682</sup> These innovations may meet the novelty test, but may not meet the inventive step test and thus are not eligible for protection under the patent law.<sup>683</sup> The Discussion Paper makes out a strong case by bringing in concrete evidence in support of its claim. For example, the National Innovation Foundation (NIF) has documented more than 100,000 grassroots innovations and traditional practices from over 520 districts of the country, out of which even if 40 percent are considered to be eligible to secure a utility model protection, given the more or less acceptable reduced inventive step criteria.<sup>684</sup> Nevertheless, as NIF has pointed out, not all of these innovations are unique, and not all are distinctive enough to satisfy the strict patentability conditions.<sup>685</sup> In other words, if the patentability criteria set out in the Act are applied to these innovations, none of them would be eligible for patent. This brings us to the crucial question of whether the inventions which are new and have practical benefits to the society should be excluded from legal protection for simply being obvious. Seen below are several examples of such innovations cited in the Discussion paper on utility models:

*Example 1: Onion Seed Transplanter.* “Onion seedlings are usually transplanted manually. This task is time consuming, labour intensive and not standardised. The transplanter is a tractor drawn semi-automatic unit which simultaneously performs three functions viz. transplanting the onion, applying fertilizer and digging the irrigation channels”.<sup>686</sup>

*Example 2: Clay Refrigerator (Mitticool).* “This clay refrigerator, which does not require electricity, keeps food fresh and works on the principle of evaporation. Water from the upper chambers drips down the sides

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682 Ibid para7.

683 Ibid.

684 A Aggrawal and B Rawat, ‘The Indian Patent System Should Grant Utility Model Patents’ (2011) Entrepreneurs website, available at : <[http://www.entrepreneurwebsite.com/2011/09/08/the-indian-patent-system-should-grant-utility-model-patents/?goback=%2Egde\\_3297732\\_member\\_69774577](http://www.entrepreneurwebsite.com/2011/09/08/the-indian-patent-system-should-grant-utility-model-patents/?goback=%2Egde_3297732_member_69774577)> (accessed 2 May 2012).

685 Department of Industrial Policy and Promotion of India, ‘Utility Models’ (2011) Discussion Paper-23 May 2011, para 8. available at: <[http://dipp.gov.in/English/Discuss\\_paper/Utility\\_Models\\_13May2011.pdf](http://dipp.gov.in/English/Discuss_paper/Utility_Models_13May2011.pdf)> (accessed 30 December 2011).

686 Department of Science and Technology-National Innovation Foundation of India, Official Website, available at: <[http://5award.nif.org.in/awardprofile-details.php?page=1&profile\\_id=1&st\\_id=4](http://5award.nif.org.in/awardprofile-details.php?page=1&profile_id=1&st_id=4)> (accessed 2 July 2012).

and evaporates, leaving the chambers cool. This keeps food, vegetables and milk fresh naturally for more than two days”.<sup>687</sup>

*Example 3: ‘Ribbed Pan (Tawa)’*. “With the heating surface made of aluminum with ribs at the bottom. This design increases the surface area available for heating and thus improves the heating capacity of the tawa, minimizing energy use”.<sup>688</sup>

Indeed, it is undeniable that in a resource-constrained developing economy like India’s, these minor technical inventions which frugally use local resources in a sustainable manner need to be encouraged by providing a legal framework for their protection and commercial exploitation.<sup>689</sup> As it has been argued in the Discussion Paper, such useful, low-cost and relatively simple innovations which create new mechanical devices or contribute to the optimal functioning of existing ones may have commercial value only for a limited time period, before they are replaced by other products or rendered redundant by change of technology.<sup>690</sup> Most importantly, given that such products will primarily be driven by the SME sector, protection would be useful and relevant only if it were provided through a legal framework which is simple, fast and affordable.<sup>691</sup> Presumably, such a legal regime designed to promote small innovation with lesser inventiveness would also remedy the existing inadequacies of the Patent Act. From a practical perspective, UM protection would act as a first level incentive to small innovators and the possession of some kind of legal protection will also facilitate actual commercialization and exploitation of such innovation through licensing and assignment.<sup>692</sup>

“Section X of the Discussion Paper lists eleven ‘Issues for Resolution’ with an aim to generate more informed discussion on the subject enabling

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687 Ibid.

688 Ibid.

689 See Department of Industrial Policy and Promotion of India, ‘Utility Models’ (2011) Discussion Paper-23 May 2011, para 10. available at: <[http://dipp.gov.in/English/Discuss\\_paper/Utility\\_Models\\_13May2011.pdf](http://dipp.gov.in/English/Discuss_paper/Utility_Models_13May2011.pdf)> (accessed 30 December 2011).

690 Ibid.

691 Ibid.

692 See A Aggrawal and B Rawat, ‘The Indian Patent System Should Grant Utility Model Patents’ (2011) Entrepreneurs website, available at : <[http://www.entrepreneurswebsite.com/2011/09/08/the-indian-patent-system-should-grant-utility-modelpatents/?goback=%2Egde\\_3297732\\_member\\_69774577](http://www.entrepreneurswebsite.com/2011/09/08/the-indian-patent-system-should-grant-utility-modelpatents/?goback=%2Egde_3297732_member_69774577)> (accessed 2 May 2012).

the government to take an appropriate policy decision. The issues raised are:

- Does India need a Utility Model Law?
- What should be the scope of protection of such a law, should it be restricted to mechanical devices?
- What parameters should be adopted in the law with respect to inventive threshold, substantive examination, grace period, exhaustion, protection period and registration procedure?
- What novelty criteria should be adopted? Should they be absolute or relative?
- What should be the nature of linkages between this law and the existing Patents Act? How do we ensure that the existing Patents Act, which is a bulwark against the ever greening of patents, remains undiluted?
- What legislative route should be adopted? Should a separate law to protect utility models be enacted? Or should the Patents Act be suitably amended? Or should the Designs Act be amended?
- Should the facility for temporary protection of an invention as a utility model pending grant of a patent be built into the legislation? Should it be specifically mandated that only one form of protection would be available at any time?
- Should applications for patents be transmutable to utility model applications and vice versa whenever the applicant so desires?
- Should any specific provisions be introduced in the proposed utility model law to promote domestic filings as well as applications from SMEs? Can we use this model to protect some part of our traditional knowledge?
- What enforcement procedure should be put in place? What should be the dispute resolution mechanism? Who should be the adjudicating authority?
- To obviate monopolistic dominance, should the adjudicating authority be empowered wherever public interest is involved, to award compensation/royalty in lieu of restraining the infringement?<sup>693</sup>

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693 See Department of Industrial Policy and Promotion of India, ‘Utility Models’ (2011) Discussion Paper-23 May 2011, para 46, available at: <[http://dipp.gov.in/English/Discuss\\_paper/Utility\\_Models\\_13May2011.pdf](http://dipp.gov.in/English/Discuss_paper/Utility_Models_13May2011.pdf)> (accessed 30 December 2011).

The main objective of the Discussion Paper was to develop a suitable framework for granting utility models protection in India, in the event it is felt that this is desirable.<sup>694</sup> The stakeholders have reportedly shown keen interest in the proposals. In terms of responses, the Discussion Paper has received considerable support from domestic industrial sectors. Perhaps most encouragingly, the Federation of Indian Chambers of Commerce and Industry (FICCI) stated that it has received an overwhelming response from micro and small enterprises and Indian innovators who felt that the time is apt and there is a great need for a system which can accord protection to their innovations which are incremental in nature.<sup>695</sup> FICCI has further observed that:

‘Responses from innovative sectors of India reveal that a lesser inventive threshold in their innovations has been one of the major causes which has not permitted them to get IP protection under the standard patent system. The criteria of higher inventive threshold has led most of them to either withdraw or abandon their patent applications besides discouraging them to even take the route of patent procedures. Further, a lot of instances have been brought to our notice where their innovations have been extensively copied, due to the absence of a regime which can confer upon them the IP rights, which has not only hampered their businesses but also brought to them a lot of dissatisfaction’.<sup>696</sup>

Moreover, according to legal practitioners, it is hoped that a utility model system with a low threshold of inventive step will help India to create a large pool of IP and that can create an innovation driven society.<sup>697</sup> Nevertheless, industrial sectors such as pharmaceutical, biotechnology and IT (software) industries have not supported the move, arguing that a UM regime would be of limited value for them. Leading players in the global software industry have made a strong case against granting UM rights in

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694 Ibid para 5.

695 Department of Industrial Policy and Promotion, ‘FICCI Suggestions on Discussion Paper on Utility model’ (2011) Federation of Indian Chambers of Commerce and Industry, available at: <<http://www.ficci.com/SEdocument/20179/UM.pdf>> (accessed 2 July 2011).

696 Ibid.

697 P Ollier, ‘Practitioners back Utility Model Patents for India’ (July 2011) Managing Intellectual property, available at : <<http://www.managingip.com/Article/2848140/Practitioners-back-utility-model-patents-for-India.html>> (accessed 15 June 2012).

India.<sup>698</sup> They have argued there is no substantial evidence to suggest that a UM regime would really benefit SMEs in India. Moreover, fears have been expressed that a UM regime would lead to unnecessary and excessive litigation. It may also be true that a UM regime would fail to provide advantages to large companies that engage in research intensive industries in high technology sectors. Similarly, more protection does not necessarily mean to increase innovation in India. As pointed out by critics of the Discussion Paper, the real issue lies with the level of awareness of the IP system in India. Thus, policymakers also need to pay more attention to raise the IP awareness through education.

#### 5.1.4. Does India need such a System?

Viewed from a perspective of innovation, in 2012 India ranked 64<sup>th</sup> in the Global Innovation Index, well behind China (34) and Malaysia (32).<sup>699</sup> Even though India is more scientifically and technologically advanced than other countries in the region, it has not had a very encouraging performance in its innovation landscape, with the exception of the IT and pharmaceutical industries. In that sense, as also pointed out at the outset, India has only scratched its potential. In many industrial sectors, India is still manufacturing low-technology products. Most notably, there is low participation in patenting activities by domestic industries. According to critics, the recent economic boom in India has been propelled by the expansion of its service sector which represented 59 percent of total GDP in 2011 alone. As observed by commentators, although India has now become a hub for international R&D activities of many multinational corporations outsourcing their research activities in India, domestic companies, including the small scale industry sector and individual inventors, are lag-

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698 See the Comments from the Global Software Industry (Business Software Alliance) in its letter dated 6 July 2011. See also the Comments from Intel Technology India Pvt. Limited, 'Comments on the Discussion Paper on Utility Models' (30 June 2011) Department of Industrial Policy and Promotion website, available at: <[http://dipp.nic.in/English/Discuss\\_paper/feedback6\\_Intel\\_Technology\\_30June2011.pdf](http://dipp.nic.in/English/Discuss_paper/feedback6_Intel_Technology_30June2011.pdf)> (accessed 15 June 2012).

699 See S Dutta/INSEAD, *Global Innovation Index 2012* (INSEAD and WIPO 2012) xvii-xix.

ging far behind.<sup>700</sup> India's SME sector, which represents more than 80 percent of all business in India, is still in technological backwaters. The innovations of SMEs are largely from smaller technological improvements and the grassroots innovators from the rural hinterland use marginal or low technology. In fact, laws and policies in India need to meet the needs of the country's industrial structure. However, the existing patent regime appears to be incapable and ineffective in protecting innovative efforts of the majority of domestic industries. All these factors taken together shows a strong case for granting UM rights in India without diluting the patentability standard under Patent Law. Thus, the new Bill proposed by the Indian government should be viewed as a welcome move. The experience from East Asia supports the view that an STP system would be required to create a supporting climate for technology capacity building.

Moreover, as observed in the Discussion Paper, SMEs introduce new products in the market under uncertain conditions.<sup>701</sup> They are unable or unwilling to undertake costly market research prior to the launch of a product and the market value of their invention is unknown and they are forced to take a considerable commercial risk at the time of the product launch.<sup>702</sup> They hesitate to commit significant time and money to protect their inventions by filing for patents.<sup>703</sup> Quick and cheap availability of protection against imitation will help to strengthen their first-mover advantage and consolidate the competitive edge. The utility model system will thus be an attractive option for them.<sup>704</sup> Nevertheless, there are also increasing concerns over potential abuses of the system if a UM system is introduced in India. Critics have warned that a UM regime would, in effect, disincentivise innovation because it would have a blocking effect on

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700 KS Kardam, 'Utility Model –A Tool for Economic and Technological Development: A Case Study of Japan' (2007) Final Report In Fulfillment of the Long-term Fellowship Sponsored by the World Intellectual Property Office (WIPO) in Collaboration with the Japan Patent Office (from April 2, 2007 to September 28, 2007), 12, available at: <[http://www.ipindia.nic.in/research\\_studies/FinalReport\\_April2007.pdf](http://www.ipindia.nic.in/research_studies/FinalReport_April2007.pdf)> (accessed 15 April 2012).

701 Department of Industrial Policy and Promotion of India, 'Utility Models' (2011) Discussion Paper-23 May 2011, para 41, available at: <[http://dipp.gov.in/English/Discuss\\_paper/Utility\\_Models\\_13May2011.pdf](http://dipp.gov.in/English/Discuss_paper/Utility_Models_13May2011.pdf)> (accessed 30 December 2011).

702 Ibid.

703 Ibid.

704 Ibid.

follow-on innovations. Thus, there is a need to have an enforcement-related check and balance mechanism in the proposed system in order to address the key concerns of the critics. All in all, however, many commentators believe that the introduction of an STP system would encourage more innovations in India if such a regime is appropriately drafted and enforced. Based on the experience of other jurisdictions, it could well be argued that an STP regime encourages more incremental innovation by providing more accessible and affordable means of protection for smaller enterprises and contributes to enhance IP awareness in the country.

#### 5.1.5. What happens Next?

Most enthusiastically, the entire South Asian region is very closely observing the next step that the Indian government will take with regard to the Discussion Paper on Utility Models. It can be safely assumed that a new Act would see the light of day sooner or later. According to the latest information from the office of the Controller General of Patents, Designs, Trademarks and Geographical Indication (CGPDTM) of India, the proposals for introducing a UM system are now before the Sectoral Innovation Councils for consideration.<sup>705</sup> It is apparent that while the work on preparing the draft legislation is proceeding, the Indian government is engaged in further consultations with various sectors involved in innovation. Of course, any new legislation needs to address many of the concerns expressed in response to the Discussion Paper by various stakeholders in India. It is of utmost important to design a more workable and balanced STP regime best suited to the needs of the country.

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705 Interview with KS Kardam/Joint Controller of Patents and Designs at Indian Patent Office (New Delhi, 15 March 2013).

5.2. Pakistani Perspectives

*'If Pakistan is to play its proper role in the world to which its size, manpower and resources entitle it; it must develop industrial potential side by side with its agriculture and give its economy an industrial bias'.*

*Muhammad Ali Jinnah*<sup>706</sup>

Pakistan is the second-largest economy in South Asia representing about 15 percent of the regional GDP.<sup>707</sup> At the time of the partition in 1947, Pakistan had a negligible industrial base and according to commentators, even after six decades, the Pakistani industrial sector does not play its proper role of contributing to economic development despite having great potential.<sup>708</sup> The industrial development of Pakistan started very early, almost on par with newly industrialized countries such as the Republic of Korea.<sup>709</sup> Despite the fact that the initial industrial policies and plans were focused on import substitution, indigenous technological development remained a missing aspect.<sup>710</sup> One of the factors may be attributed to the type of industry that was mostly primary manufacturing (i.e. textiles and leather) and did not need advanced engineering or technological inputs.<sup>711</sup> According to the World Bank, Pakistan continues to markedly lag behind other nations in South Asia.<sup>712</sup> Presumably, one of the root causes for the country's economic sluggishness is its weak industrial performance. This picture is not very different from its innovation potential. Most notably,

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706 Cited according to Intellectual Property Organisation of Pakistan, *Annual Report* (2009) Official Website of IP Pakistan. This statement was made by Muhammad Ali Jinnah who is considered to be the founder (father) of Pakistan. Jinnah is officially known as Qalid-e-Azam, available at: <<http://www.ipo.gov.pk/UploadedFiles/AnnualReport-2009-81201031025.pdf>> (accessed 30 June 2012).

707 World Bank, *Global Economic Prospects Report -January 2013* (World Bank 2013) 139, available at: <<http://www.worldbank.org/en/publication/global-economic-prospects>> (accessed 30 March 2013).

708 S Jaleel, 'Pakistan Industrial Growth' (2012) The Rawalpindi Chamber of Commerce and Industry 1, available at: <<http://www.rcci.org.pk/wp-content/uploads/2012/12/igtip.pdf>> (accessed 12 January 2013).

709 HG Ruse-Khan, 'Utility Model Protection in Pakistan-A Feasible Option for Incentivising Incremental Innovation?' (2012), Study conducted for the World Intellectual Property Organisation 70 (copy on file with author).

710 Ibid.

711 Ibid.

712 World Bank, *Global Economic Prospects Report-2012* (World Bank 2012) 139, available at: <<http://www.worldbank.org/en/publication/global-economic-prospects>> (accessed 30 March 2012).

like India, the Pakistani legal system has failed to provide for a utility model or petty patent system encouraging technological learning to build local technology capacity through minor adaptations or improvements of existing products, imported machinery or equipment by domestic inventors.<sup>713</sup> As commentators have observed:

‘industrial and economic development of Pakistan has been less than optimal due to the missing ‘value addition’ part in all economic activities resulting in lack of Intellectual Property usage as a major tool of value addition therein. Therefore Pakistan, thus far, has been an IP importing country. The innovation factor is still not one of the notables for economic activities in Pakistan; in particular the manufacturing and related sectors do not emphasize R&D and its commercialization (in form of IP/patents)’.<sup>714</sup>

### 5.2.1. The Statistical Story

The statistical evidence from Pakistan’s IP office on the number of patent applications and grants provides a reasonable proxy for innovation activities in Pakistan. Comparatively speaking, Pakistan lags far behind its neighbors and other countries in East Asia in terms of patenting activities. As presented in Table 5.3, the number of patent applications in Pakistan not only remains low, but has recorded a slow growth in the recent years. Moreover, the number annual patent grants appears to be very low, given its relatively large size market and population. Commentators have observed that the low number of annual patent applications in Pakistan show a disconnect between domestic economic/industrial activity and the corresponding IP protection.<sup>715</sup> Besides, the industrial sectors in Pakistan are engaged in the production of low technology goods.

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713 See N Kumar, *Intellectual Property Rights, Technology and Economic Development: Experiences of Asian Countries* (2003) Commission on Intellectual Property Rights Study Paper 1b, 4-8.

714 HG Ruse-Khan, ‘Utility Model Protection in Pakistan-A Feasible Option for Incentivising Incremental Innovation?’ (2012), Study conducted for the World Intellectual Property Organisation 70 (copy on file with author).

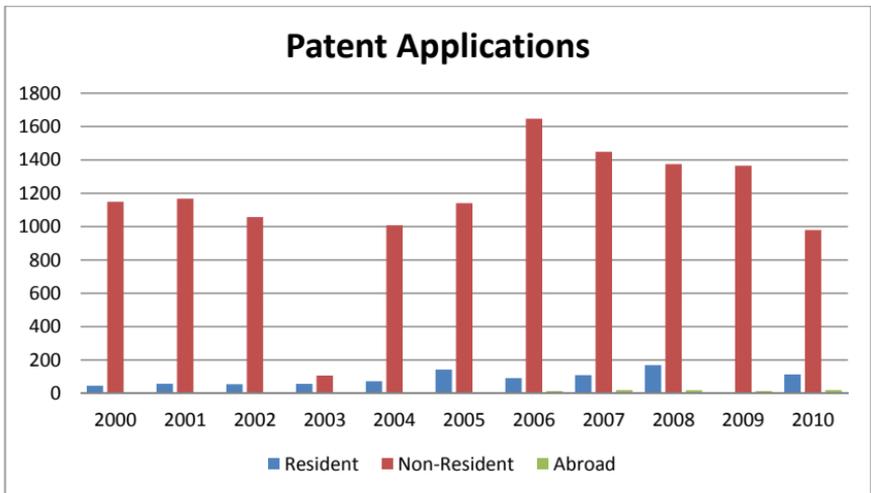
715 Ibid 72.

Table 5.3: Patent Applications and Grants at IPO Pakistan, 2004-2010

Year	Filed	Granted
2004-05	493	484
2005-06	1406	256
2006-07	1790	299
2007-08	1535	152
2008-09	1365	162
2009-10	1208	252

(Source: Based on data obtained from Annual Reports of IPO Pakistan)

Figure 5.4: Patent Applications by Resident and Non-resident from 2000-2010

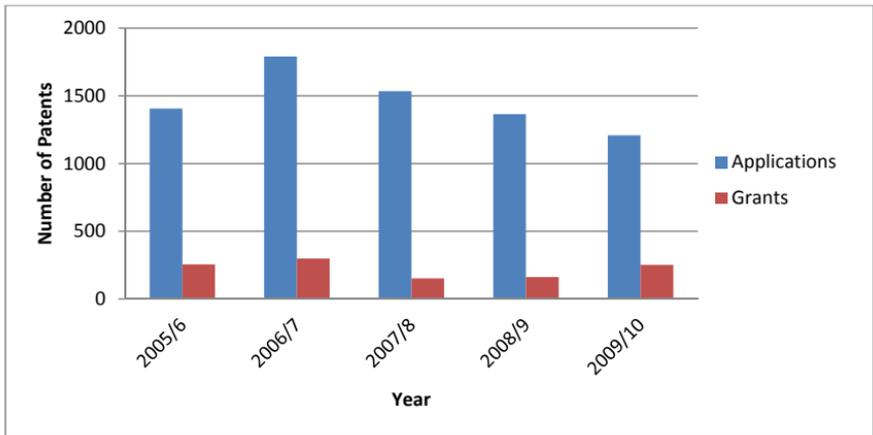


(Source: Based on data obtained from WIPO statistic database)

An analysis of the patent filing trend shows that the majority of patent filers are foreign residents and Pakistani applicants file less than 200 patent applications every year. One possible reason for such low patenting activities may be attributed to the lack of awareness. Nevertheless, it is clear that not many players in the industrial sectors have made good use of the

country's patent mechanism. As shown in Figure 5.4, the patent system in Pakistan is overwhelmingly used by foreign filers.

*Figure 5.5: A Comparative View of Patent Applications and Grants, 2005-2010*



(Source: Based on data obtained from Annual Reports of IPO Pakistan)

Figure 5.5 suggests that the grant rate of patent applications from 2005 to 2010 remained as low as 20 percent and, most strikingly, for the period 2007 to 2008, only 10 percent of total applications have been successful in securing patent rights. The picture painted by these statistics is quite disappointing and a cause for concern. As in the case of India, one of the reasons for this low rate of success may be attributed to stricter novelty and inventive step requirements of existing patent law in Pakistan. Obviously, the patent regime is underutilized and does not seem to cater to the needs of the individual and industrial sectors in the country. From these statistics, it can be concluded that there may be a strong case for adopting a faster, less expensive, uncomplicated and low-threshold protection regime for incentivising domestic innovation in Pakistan.

### 5.2.2. Protection for Incremental Innovations in Pakistan

The industrial sector is the second largest and an important sector of the Pakistani economy, accounting for 25 percent of the total GDP.<sup>716</sup> Significantly, some of the industries such as light engineering and electrical home appliances have grown significantly in the recent years and expanded their presence in African (fans and electrical motors) and Asian (bicycles) markets.<sup>717</sup> According to the Intellectual Property Organisation (IPO) of Pakistan, incremental innovations are especially evident in the light engineering sector, automotive sector, agricultural machinery, machine tools, and sport and surgical goods industry where SMEs are very active.<sup>718</sup> However, the incremental improvements in technology are not recognized and adequately protected in Pakistan either by the existing patent or design regimes.<sup>719</sup> A recent WIPO study finds that imitation and copying is a very serious issue for the industrial sectors that involve minor and incremental innovations in Pakistan and SMEs are the major victims of absence/weakness of IP protection, creating clear disincentives for their innovative activities.<sup>720</sup> Based on the feedback obtained from Pakistan, the WIPO study further observes that if legal protection for incremental innovation is provided through utility models, then there is a good chance that most of the aforementioned industries<sup>721</sup> would genuinely focus on

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716 S Jaleel, 'Pakistan Industrial Growth' (2012) The Rawalpindi Chamber of Commerce and Industry 3, available at: <<http://www.rcci.org.pk/wp-content/uploads/2012/12/igtip.pdf>> (accessed 12 January 2013).

717 HG Ruse-Khan, 'Utility Model Protection in Pakistan-A Feasible Option for Incentivising Incremental Innovation?' (2012), Study conducted for the World Intellectual Property Organisation 70 (copy on file with author).

718 The Financial Daily, 'IPO to introduce new IP form in Pakistan' (Islamabad, 26 February 2013) reported quoting the Executive Director, IPO Umer Dad Afridi, available at: <<http://www.thefinancialdaily.com/NewsDetail/158552.aspx>> (accessed 12 March 2013).

719 Interview with M Ismail, Deputy Director IPO (Munich, 28 March 2013).

720 HG Ruse-Khan, 'Utility Model Protection in Pakistan-A Feasible Option for Incentivising Incremental Innovation?' (2012), Study conducted for the World Intellectual Property Organisation, 69 (copy on file with author).

721 Industries mentioned in the study include; surgical goods, electric fans, machinery for pharmaceuticals, bicycles, motorbikes, basic machinery for textiles, automobile parts, steel structures and prefabricated constructions.

achieving such innovation and compete based on innovative products.<sup>722</sup> Thus, the study concludes that in order to promote small-scale, incremental innovative activities by SMEs in particular, introducing a system of utility model protection in Pakistan is a feasible option. Moreover, it has also been argued that if such a protection regime is introduced into the Pakistani IP legal framework, it would provide necessary protection and economic incentives to promote innovation at the domestic level which would eventually facilitate greater awareness and use of the patent system by local inventors.<sup>723</sup>

### 5.2.3. Recent Initiatives

Based on the WIPO study, the Pakistan government has taken positive steps towards introducing an STP regime in the country. This move may be viewed as one step further than what India has already taken in this regard. In February 2013, the IPO of Pakistan drafted an initial Bill proposing a UM system for Pakistan. The initial draft of IPO is currently before stakeholders for comments. According to the IPO, it is at the stage of assessing whether the proposed UM system would be useful for Pakistan or not, through further consultations.<sup>724</sup> Pursuant to the UM Bill, a utility model shall be granted to any invention which is novel and industrially applicable.<sup>725</sup> Clearly, there is no requirement of an inventive step for a grant of UM right. Notably, like under the German UM system, ‘relative novelty’ standard has been proposed. In particular, publications in tangible form from anywhere in the world and oral disclosure or use in Pakistan, prior to the filing date of Utility Model application, will be considered as prior art.<sup>726</sup> In other words, neither oral disclosure nor public use abroad can destroy the novelty of a UM application. Thus, it may be argued that the proposed UM regime envisions a lower level of patentability criteria. Like many other countries, animal and plant varieties, chemical compositions,

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722 HG Ruse-Khan, ‘Utility Model Protection in Pakistan-A Feasible Option for Incentivising Incremental Innovation?’ (2012), Study conducted for the World Intellectual Property Organisation, 81 (copy on file with author).

723 Ibid.

724 E-mail from IPO to author (16 March 2013).

725 See Section 5 (1) of the proposed Utility Models Bill of Pakistan 2013.

726 See Section 5 (2) of the proposed Utility Models Bill of Pakistan 2013.

computer programs, processes and methods are specifically excluded from the protectable subject matter.<sup>727</sup> Perhaps even more importantly, it is proposed that the UM right is granted after a preliminary examination and does not involve a substantive examination. Moreover, a mechanism for checks and balances to prevent abuses of the system has been proposed. Specifically, the Bill has provided for an invalidation procedure before the IPO which can be initiated by any person. Moreover, like in Japanese law, any person can request for a ‘Utility Model Technical Opinion’ as to the registrability of an invention for UM. Last, but not least, the proposed maximum statutory life of the UM will be ten years from the filing date. If passed, the new law would have a significant impact on the entire South Asian region. It is learnt that the legislating process would take, at least, two years for the new Act to see the light of the day.

### 5.3. *Whether and to what extent are these Experiences applicable to Sri Lanka?*

Perhaps the most important insight from the above analysis is that the policymakers of both India and Pakistan have signalled their willingness to consider an alternative philosophy for incentivising domestic innovations in their countries. It is even more encouraging to note that, at least by now, countries in South Asia have begun to feel that they lag far behind their East Asian neighbors in terms of innovation. In fact, in the late 1950s, neither of these East Asian economies were much richer than the countries of Sub-Saharan Africa and had virtually no industries.<sup>728</sup> From being predominantly agricultural economies, these nations have transformed their economies into more diversified industrial ones. A snapshot view on selected South and East Asian economies in terms of industrial development indicators is given below:

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727 See Section 7 of the proposed Utility Models Bill of Pakistan 2013.

728 D Rodrik, ‘Getting Globalization Right: The East Asian Tigers’ (2012) OECD Insights, available at: <<http://oecdinsights.org/2012/05/03/getting-globalization-right-the-east-asian-tigers/>> (accessed 2 June 2012).

### 5.3. Whether and to what extent are these Experiences applicable to Sri Lanka?

*Table 5.4: Ranking of Competitive Industrial Performance (CIP) Index 2011*

Country	Rank	Country	Rank
<b>India</b>	42	China	5
<b>Pakistan</b>	63	Republic of Korea	7
<b>Bangladesh</b>	69	Thailand	25
<b>Sri Lanka</b>	92	Malaysia	27
<b>Nepal</b>	94	Philippine	33

(Source: Based on data from the UNIDO's Industrial Development Report 2011)

*Table 5.5: A Comparative View of Medium and High-Technology Goods Exports*

Country	% of all Exports	Country	% of all Exports
<b>India</b>	22.6	Republic of Korea	75.1
<b>Pakistan</b>	8.7	Malaysia	72.1
<b>Bangladesh</b>	3.4	Thailand	61.6
<b>Sri Lanka</b>	7.8	China	57.5
<b>Nepal</b>	9.1	Philippines	81.4

(Source: Based on the data from UNIDO's Industrial Development Report 2009)

Even though IP may only be one factor that affects the technological development of a country, the experience from East Asia indicates that UM regimes have facilitated technological learning through progressive adaptation of foreign technology in their countries. Arguably, all South Asian economies may need to revisit their innovation policies in order to create an eco-system conducive for indigenous innovations. In so doing, individual countries in the South Asian region would have to adopt new legal instruments to incentivise creativity at all levels. Today, both India and Pakistan foresee a UM system in their jurisdictions. Specifically, India has declared 2010-2020 as the 'Decade of Innovation' with the aim of developing an innovation culture in the country to stimulate innovation and to pro-

duce solutions for social needs.<sup>729</sup> Sri Lanka, except for its small size market, shares many of the common features such as the agricultural economy and labour intensive industries like those of India and Pakistan. Sri Lanka is a less technological advanced country with a large presence of an under-developed SME sector. Thus, the main arguments offered in favour of adopting a UM system in India and Pakistan to encourage incremental and grassroots innovations would be equally applicable for Sri Lanka. Similarly, the designing of a more workable and balanced STP regime to assist SMEs should carry necessary safeguards against possible abuses of the system. To that extent, genuine concerns raised in response to the Indian Discussion Paper and the UM Bill of Pakistan are worth considering by Sri Lankan policymakers in order to minimize unintended negative consequences of the system. Nevertheless, it is important that any system of STP should be tailored to the specific characteristics of the individual country.

### 5.3.1. Conclusion

It is evident that several countries in the South Asian region are now contemplating adopting an STP regime in order to encourage more indigenous/domestic innovations in their economies. Thus far, the South Asian region has been a notable exception to such a regime. Nevertheless, rigorous patentability criteria prevent most minor and incremental innovations, which are predominantly created by the SME sector in the region, from receiving valuable IP protection. In order to increase the role of SMEs and to build up technological capacity in their countries, both India and Pakistan have taken positive steps towards introducing a UM regime. These moves initially received strong support from domestic industries and it is hoped that new laws would be introduced after further consultations and evaluation of all responses. Nevertheless, there is increasing skepticism of the actual or potential use of the system given the very low level of IP awareness in these countries. Significantly, large players in the market have expressed their dissatisfaction over the possible introduction of such

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729 See the Press Release of the Department of Science and Technology (Ministry of Science and Technology of India) on 10 March 2010, available at: <[http://www.dst.gov.in/whats\\_new/press-release10/pib\\_10-3-2010.htm](http://www.dst.gov.in/whats_new/press-release10/pib_10-3-2010.htm)> (accessed 14 June 2012).

5.3. *Whether and to what extent are these Experiences applicable to Sri Lanka?*

a UM system. Most importantly, one of the major concerns that countries need to address is the potential abuses of the system.