6. Designing a Second-Tier Protection Regime for Sri Lanka

> *'Sri Lankans have innovating power and imagination and it is our duty not to stand aside but to give them a hand and push them forward'.*
> *Lalith Athulathmudali* [730]

According to the above observation made by one of the architects of the Sri Lankan Code of IP Act of 1979, Sri Lankans do not lack an innovative spirit. However, Sri Lanka needs to ignite the creative spark of the people by creating the necessary conditions and providing them with incentives to innovate. As evident from the world leading irrigation systems and architectural wonders, during the reign of the ancient kings, Sri Lankans have proven to be a creative and innovative people. However, the country's priorities on technology and innovation seem to have drifted away with the arrival of imperialist powers from across the Indian Ocean in the last couple of centuries.[731] This under-development in the field of science and technology has been one of the reasons why Sri Lanka is economically lagging behind today.[732] Undeniably, innovation is now, if not the driving force, a key determinant of the economic development of a country. By and large, Sri Lanka is a raw material exporter and an agricultural nation. Thus, science, technology and innovation have remained in the backwater of the government's policy-making.

Nevertheless, in recent years, the Sri Lankan government's policies seem to indicate a shift towards more value addition and value creation through innovation as well as advancing the country's science and tech-

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730 L Athulathmudali-the former Minister of Trade (1977-1993), *Hansard Report-25 May 1979* (The Parliament of Sri Lanka 1979) 503. He made this statement in the second reading of the Code of Intellectual Property Law Bill in Parliament.

731 A Wijesinha, 'Igniting a new fire: Why innovation must be Sri Lanka's new priority' *Daily FT* (Colombo, 12 March 2013, available at: <http://www.ft.lk/2013/03/12/igniting-a-new-fire-why-innovation-must-be-sri-lankas-new-priority/> (accessed 25 March 2013).

732 See Government of Sri Lanka, *Mahinda Chintana-Towards a new Sri Lanka – Policy Document* (Department of National Planning: Ministry of Finance and Planning 2005) 67, available at: <http://www.treasury.gov.lk/publications/mahindaChintanaVision-2010full-eng.pdf> (accessed 25 March 2013).

nology capabilities.[733] Against this background, a consideration of a second-tier protection (STP) regime reinforces the above objectives and the policy goals of the country. As discussed in the initial chapter, due to the almost unfettered policy space left under the multi-national IP treaties, Sri Lanka is free to tailor an STP regime according to the needs of the industrial structure of the country. Since Sri Lanka has no experience with a domestic STP regime, the emerging successful experience from East Asia lends credibility to such a regime. Most encouragingly, the most recent initiatives of the Indian and Pakistani governments in this direction have created enthusiasm to consider the introduction of a UM regime in Sri Lanka. Thus, it is for policymakers to consider an alternative philosophy for incentivising domestic or indigenous innovation in the country. The main arguments offered in favour and against an STP regime can be viewed through administrative, substantive or policy considerations.

6.1. Arguments for introducing an STP in Sri Lanka

One of the main arguments offered in favour of adopting an STP regime in Sri Lanka is the specific characteristics of the innovation landscape of the country. As interpreted through the lens of global innovation indicators, Sri Lanka stands in 94th position out of 141 on the Global Innovation Index 2012.[734] In terms of the Global Competitiveness Index,[735] the Sri Lankan economy was ranked number 68 out of 144 countries. The recent patent statistics provide a telling glimpse of the innovation activities and the technological strength of the nation. As observed in chapter 2, the number of resident patent filings in Sri Lanka is low and the bulk of granted patents are owned by non-residents. Moreover, it is rather disheartening to observe that the rejection rate of patent applications is considerably high, and in 2011 alone, it was more than 60 percent of the total domestic

733 National Science and Technology Commission (NASTEC) -Ministry of Science and Technology, *National Science and Technology Policy-2008* (Government of Sri Lanka 2008) 38.

734 S Dutta/INSEAD, *Global Innovation Index 2012* (INSEAD and WIPO 2012) xvii-xix. available at: <http://www.globalinnovationindex.org/gii/main/fullreport/index.html> (accessed 30 August 2012).

735 K Schwab, *The Global Competitiveness Report 2012-2013* (World Economic Forum 2013) 14, available at: <http://reports.weforum.org/global-competitiveness-report-2012-2013/> (accessed 10 November 2012).

patent applications. The low application approval rate indicates that a large area of innovations fall between the no-protection cracks making a strong case for introducing an STP regime in Sri Lanka.[736] From a policy perspective, most applications that are currently being rejected for not meeting the stringent inventive step requirements would be granted protection if there was an STP regime in place. Taken together, all these factors indicate that Sri Lanka's innovation performance is far from satisfactory. Thus, the policymakers need to consider an STP regime to promote innovation at all levels in the country, not only patentable inventions.

Moreover, a UM regime may be used as a tool to advance the technological capabilities of domestic industrial sectors in Sri Lanka. As survey evidence suggests, both large and small industries currently use low and medium technology in their business activities.[737] This might be one of the reasons for a large number of minor and incremental technical advances to have a lower threshold of inventiveness. In fact, Sri Lanka is still on the initial rung of the technological ladder and the SME sector in particular has suffered over the years due to marginal technological capabilities. As commentators have pointed out, Sri Lanka is still making simple products such as tea and garments and very little high-tech complex products.[738] Many firms tend to engage in minimal R&D activities and Sri Lanka's overall expenditure on R&D stands at one of the lowest in the region

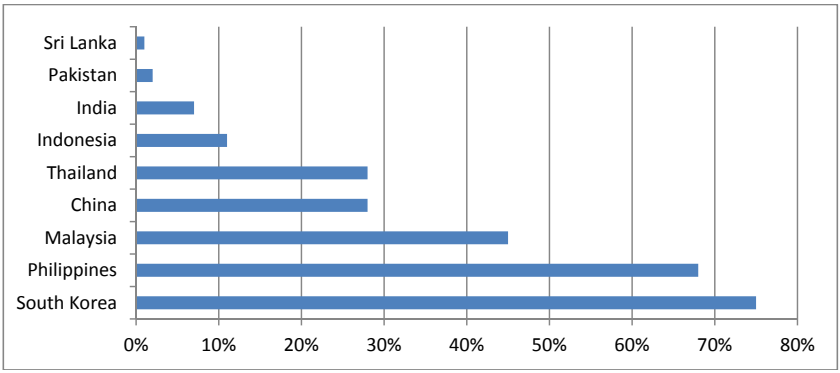
736 KF Jorda, 'Utility Models: The Panacea for our Broken Patent System' (2007) Germeshausen Center Newsletter 4, available at: <http://www.ipo.org/wp-content/uploads/2013/03/utilitymodels.pdf> (accessed 30 August 2012).

737 The methodology employed to gather information was to conduct face to face interviews and detailed telephone interviews with owners and managers of 25 randomly selected representative SME firms in Sri Lanka, whose contact details were obtained from the government Ministry of Productivity Promotion and other industrial sector organizations. Moreover, interviews with large firms based in Colombo and selected inventors in Sri Lanka based on the contacts provided by the Sri Lanka Inventor's Commission were carried out in 2011 and 2012.

738 S Kelegama, 'SL's lack of innovation, markets limit export growth' *Sunday Times* (Colombo, 13 March 2013), available at: <http://www.sundaytimes.lk/130310/business-times/sls-lack-of-innovation-markets-limit-export-growth-dr-kelegama-35527.html> (accessed 20 March 2013). See also WA Wijewardena, 'Sri Lanka's Future: Convert the Simple Economy into a High-Tech based Complex Economy' *Daily FT* (Colombo, 17 September 2012), available at: <http://www.ft.lk/2012/09/17/sls-future-convert-the-simple-economy-into-a-high-tech-based-complex-economy/> (accessed on 20 March 2013).

which is now 0.11 percent of GDP.[739] Alarmingly, the private sector share of R&D expenditure is just 18 percent.[740] Today, Sri Lanka's high-tech exports have fallen to 1 percent of all manufactured goods. Figure 6.1 below provides a comparative view of high-tech exports of Sri Lanka and selected South and East Asian countries.

Figure 6.1: The Share of High Tech Exports out of the Total Manufactured Exports, 2010



(Source: World Bank Database)[741]

It is apparent that Sri Lanka is a technologically less advanced country. The emerging experience from East Asian countries such as South Korea shows that a UM regime can help those domestic firms who are at the early stages of their industrial development to build their technological capacity.[742] Thus, Sri Lanka should explore an STP system to assist domes-

739 S Kelegama, 'SL's lack of innovation, markets limit export growth' *Sunday Times* (Colombo, 13 March 2013), available at: <http://www.sundaytimes.lk/130310/business-times/sls-lack-of-innovation-markets-limit-export-growth-dr-kelegama-35527.html> (accessed 20 March 2013).

740 Ibid.

741 A Wijesinha, 'Igniting a new fire: Why innovation must be Sri Lanka's new priority' *Daily FT* (Colombo, 12 March 2013, available at: <http://www.ft.lk/2013/03/12/igniting-a-new-fire-why-innovation-must-be-sri-lankas-new-priority/> (accessed 25 March 2013).

742 YK Kim and others, 'Appropriate Intellectual Property Protection and Economic Growth in Countries at Different levels of Development' (2012) 1/4 Research Policy 358, 368, available at: <http://www.sciencedirect.com/science/article/pii/S0048733311001715> (accessed 2 June 2012).

tic industrial sectors to build their technological capabilities. The adoption of a UM system would also help to enhance the technology level of the country's SME sector to the next level. Today, the SME sector in the country is mainly confined to the simple end of technology. Obviously, Sri Lanka has suffered from a low technological capability which has hugely affected the domestic industries predominantly represented by SMEs. Moreover, there is a close nexus between the standard of technology that SMEs use and their productivity and competitiveness, eventually leading to success or failure of the business. Unsurprisingly, most SMEs in Sri Lanka use outdated or substandard technology, and as a result, the quality of products and services produced by them is moderate or is not up to international standards.[743] For instance, the local herbal medicine industry, which has suffered a lot locally and internationally due to substandard products, provides ample examples to prove this claim. Consequently, the SME sector finds it difficult, if not impossible, to compete with relatively high quality cheaper imported products from neighboring markets on one hand, and on the other hand, SMEs are prevented from reaching global or at least the regional markets of South Asia.

Another important argument that speaks in favour of adopting an STP regime is that there are insufficient incentives for minor and incremental innovation in Sri Lanka. The incentive theory holds that economic actors will not tend to engage in economically valuable creativity and innovation without external rewards.[744] The existing patent regime fails to protect technologically less advanced innovations as they do not satisfy the rigorous patentability criteria as applied by the IP office of Sri Lanka. Moreover, the design regime does not accord any protection for the functional aspects of technical innovations. Thus, neither the patent nor the design regime provides a suitable means of protecting sub-patentable innovation. Obviously, such innovations fall through the safety net of IP protection. Moreover, the incentive-based argument can further be supported by recourse to the 'prospect theory or incentive to commercialize thesis'. The prospect theory argues that in the process of technological innovation re-

743 AL Somaratne, 'Access to Finance by SMEs in Sri Lanka' *The Island* (Colombo, 15 August 2012), available at: <http://www.island.lk/index.php?page_cat=article-details&page=article-details&code_title=59282> (accessed 16 August 2012).

744 EE Johnson, 'Intellectual Property and the Incentive Fallacy' (2011) 39 Florida State University Law Review 623, 662.

sources are brought to bear upon an array of prospects.[745] Thus, a UM provides a legal framework that enhances prospects of commercial exploitation of minor but socially desirable innovation. In the Sri Lankan context, the innovation of the SMEs mainly consists in minor adaptations to existing products and they are most vulnerable to copying by competitors. Therefore, it may be argued that a UM or petty patent system would provide adequate incentives for the type of innovations that emanate from the SME sector in Sri Lanka.

Perhaphs even more encouragingly, as interpreted through the lens of the property right theory, a UM regime may provide not only incentives but also much needed legal certainty for minor and incremental innovations. In Sri Lanka, there are no property rights for these types of innovations, leaving the fruits of such investments unprotected. Without some sort of legal protection, such innovations could be freely appropriated by competitors creating disincentives which is tantamount to systematically killing of such innovations. By making a legal right available, the innovative activities of Sri Lankan firms would be encouraged. The property right theory shows the validity of legal protection for private property from an economic point of view.[746] According to commentators, creating exclusive rights and competitive restrictions are necessary so that competition can develop at a particular higher level of activity which is relevant to the economy of consumption, production and innovation.[747] Legal protection of tangible property, as well as of IP, can be viewed as a restraint on consumption, which is required in order to permit competition to arise at the production level; i.e. the owner of an apple orchard would not be interested in the production of apples if anyone could freely snatch away the fruits of his labor.[748] According to von Weizsäcker, if free access to the exisiting stock of goods is excluded by the institution of property, then

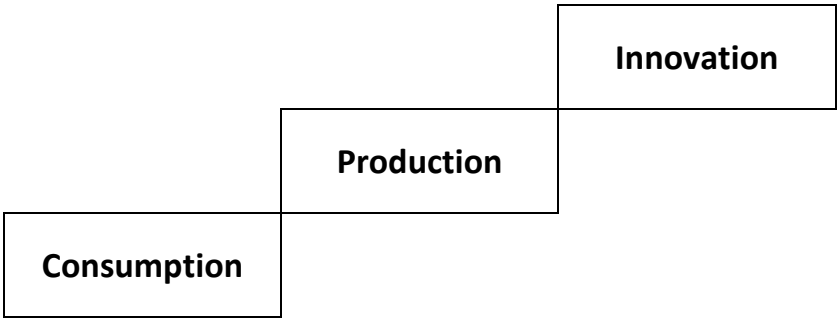
745 EW Kitch, 'The Nature and Function of the Patent System' (1977) 20/2 Journal of Law and Economics 265, 266.

746 M Lehmann, 'Property and Intellectual Property-Property Rights as Restrictions on Competition in Furtherance of Competition' (1989) 20/1 International Review of Intellectual Property and Competition Law 1, 2.

747 Ibid 12-13. Also see, C Christan von Weizsäcker, 'Rights and Relations in Modern Economic Theory' (1984) 5 Journal of Economic Behavior and Organization 133, 138.

748 M Lehmann, 'Property and Intellectual Property-Property Rights as Restrictions on Competition in Furtherance of Competition' (1989) 20/1 International Review of Intellectual Property and Competition Law 1, 13.

there emerges a system of incentives.[749] Therefore, a legal mechanism is needed to safegaurd the rights of innovators at the level of consumption. The same is certainly true for restraints in competition by way of property rights at the production level. Arguably, in this scenario, petty patents or utility models also enhance competition at the next higher level, namely the level of innovation (see below).[750]



In reality, given the particular vulnerabilty of incremental innovations for copying, as they do not represent sophisticated and complex technologies, free-riders and unfair imitators would lose no time in taking advantages of them. In the absence of a barrier of protection, such incremental innovations become crops in an unfenced field. In crafting the right design of property rights, one of course has to be extremely careful with regard to the scope of the right and its limitations.

Given that the patent system can hardly be used by SMEs, providing a cheaper and accessible source of protection for local SMEs is a vital in unleashing untapped potentials of grassroot innovators. Thus, a legal regime in the nature of utility models can raise the possibility of receiving exclusivity for commercially exploitable and socially-relevant creative solutions

749 C Christan von Weizsäcker, 'Rights and Relations in Modern Economic Theory' (1984) 5 Journal of Economic Behavior and Organization 133, 138.

750 M Lehmann, 'Property and Intellectual Property-Property Rights as Restrictions on Competition in Furtherance of Competition' (1989) 20/1 International Review of Intellectual Property and Competition Law 1, 12. The author has used the argument in analogy for utility model protection.

from the rural hinterland,[751] where nearly 80 percent of Sri Lanka's population lives. These incremental innovations, which use local resources in a suitable manner, would primarily be driven by the SME sector and such protection would only be useful and relevant if it were provided through a legal framework which is simultaneously quick, cheap, undemanding and simple.[752] There is always a criticism that the patent system is similar to a 'luxury hotel' and only very few can afford to get there. Likewise, the patent system is not for all.[753] The cost of obtaining a suitable right and the time it takes to register renders this luxury intellectual property right inappropriate in many cases, especially for small businesses.[754] By way of analogy, one can reasonably argue that the adoption of an STP regime would amount to a 'democratization of the IP system' which has so far been confined to a limited number of foreign and large domestic companies.

From a socio-economic perspective, the introduction of an STP regime would help advance the goal of social justice. It would also respond to the common critique of the patent system that it does not pay enough attention to local needs. In other words, an STP system would contribute to re-balance the IP system by catering to the need of social justice. In the eyes of legal philosophy, John Rawls' theory of justice can also be used to defend this line of argumentation. Rawlsian theory holds that 'justice is the first virtue of social institutions, as truth is the virtue of systems of thought'.[755] In consequence, one can advance an argument that the IP system, as a legal institution which is socially-rooted, needs to create a new institution in

751 MS Nair, 'Utility model: DIPP comes out with a discussion paper' (2011) June, China Law & Practice, available at: <http://www.chinalawandpractice.com/> (accessed 12 August 2012).

752 Ibid. Department of Industrial Policy and Promotion, Discussion Paper on Utility Model (23 May 2011) para 10, available at: <http://dipp.gov.in/English/Discuss_paper/Utility_Models_13May2011.pdf> (accessed 30 December 2011).

753 P Torremans, *Holyoak and Torremans Intellectual Property Law* (4th edn, Oxford University Press 2005) 161.

754 Ibid.

755 JA Rawls, *A Theory of Justice* (Clarendon Press 1971) 3-11. Rawls further argues that laws and institutions no matter how efficient and well-arranged must be reformed or abolished if they are unjust. Rawls, in respect of his second principle of justice, argues that 'social and economic inequalities are to be arranged so that (a) they are to be of the greatest benefit to the least-advantaged members of society (the difference principle) and (b) offices and positions must be open to all under conditions of fair equality of opportunity'.

the form of an STP regime that makes the disadvantaged under the conventional patent regime relatively better off. From a social justice perspective, an STP system would be instrumental in affording fair opportunities for accessible protection for all kinds of innovations. Furthermore, no human domain should be immune from the claims of social justice.[756] IP regulates the production and distribution of information and like property law, structures social relations and has profound social effects. Considerations of social justice cannot be peripheral to such a central human institution.[757] As Gupta argues, harnessing intellectual property rights for meeting the ends of social justice is imperative.[758] He makes a strong case for certain specific reforms in the present IP system, including the introduction of a low transaction cost protection mechanism such as the present innovation patent system in Australia, to make IP protection more accessible to small innovators and local communities.[759] Thus, a UM regime would advance social justice by reducing practical difficulties of using the patent system by a broader spectrum of innovators in Sri Lanka.

The other main arguments offered in favour adopting an STP regime in Sri Lanka can be summarized as follows:

– A UM right can be used as collateral to secure financing for the cash-strapped SME sector in Sri Lanka.[760]

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756 A Chander and M Sunder, 'Is Nozick Kicking Rawls's Ass? Intellectual Property and Social Justice' (2007) UC Davis Legal Studies Research Paper Series No. 8 563, 578.

757 Ibid.

758 AK Gupta, 'Grassroots to Global: The Knowledge Rights of Creative Communities' (Globalization & Justice: Interdisciplinary Dialogues, School of Law, Seattle University, USA, 21-22 February 2008) 12, available at: <http://www.sristi.org/anilg/papers.php> (accessed 10 June 2011).

759 Ibid. See also AK Gupta, 'Can protecting intellectual property rights be of any consequence for poor people?' (2007) Indian Council for Research on International Economic Relations (ICRIER) 1, 14, available at: <http://www.sristi.org/anilg/papers/> (accessed 10 June 2011).

760 As Jacobs has argued 'collateral is a borrower's promise of specific property if a loan is not repaid. When using intellectual property as a collateral, the borrower is promising the transfer of his intellectual property (i.e. patent, trademark, copyright or a utility model) if he does not repay his loan. Intellectual property was first used as collateral to secure financing by Thomas Edison in the late 1880s. Edison used his patent for the incandescent electric light bulb as collateral to secure financing for his own business.' BW Jacobs, 'Using IP to secure Financing after the Worst Financial Crisis since the Great Depression' (2011) 15 /2 Marquette Intellectual Property Law Review 450, 450.

- It may be a 'title carrier' for business negotiation, especially for licensing agreements and a bargaining tool in litigation.
- An STP right would be an effective vehicle for technology transfer to domestic industries, especially for rural SMEs and TK-based industrial sector in Sri Lanka.
- A utility model system can facilitate adaptive and progressive imitation of foreign technologies by domestic firms, i.e. several East Asian countries relied heavily on utility models in their early development stages, often protecting incremental, non-patentable modifications of imported products.[761]
- An STP regime would provide a realistic opportunity for TK-based innovators to participate in economic development of the country.
- It may be able to provide rapidly enforceable legal rights at a cost that they can afford which can be used as a sword to gain competitive advantage in the market.
- A utility model system can be used as a tool to raise the level of IP awareness among domestic industries.
- An STP system can be a useful supplement and in some cases complement to the existing IP regimes.
- A UM or a petty patent right confers on the right holders a psychological advantage over competitors by creating the (illusory) effect that imitation by competitors will be delayed due to the exclusive rights.[762]

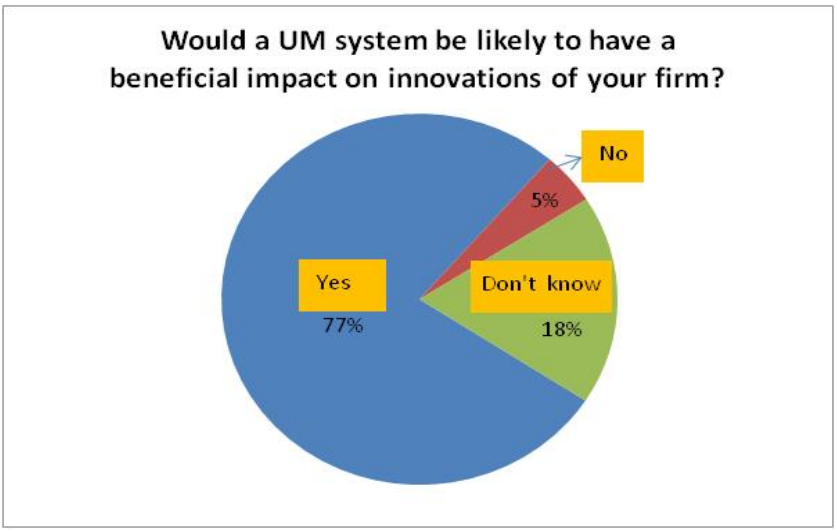
Below is a summary of resposes received from the SME sector on the appropriateness of adopting a UM regime as a legal instrument for protecting small and incremental innovation in Sri Lanka.[763]

761 WIPO, World Intellectual Property Report: The Changing Face of Innovation (2011) WIPO 80.

762 HG Ruse-Khan, 'Utility Model Protection in Pakistan-A Feasible Option for Incentivising Incremental Innovation?' (2012), Study conducted for the World Intellectual Property Organisation 28 (copy on file with author).

763 The methodology employed to gather information was to conduct face to face interviews and detailed telephone interviews with the owners and managers of 25 randomly selected representative SME firms in Sri Lanka, whose contact details were obtained from the government Ministry of Productivity Promotion and other industrial sector organizations.

Figure 6.2: Views of Sri Lankan SMEs on Possible UM System



As shown in Figure 6.2, nearly 80 percent of SMEs interviewed have a favourable opinion about the potential benefits of an STP mechanism. Nevertheless, this data should be interpreted with caution, as more than 20 percent of potential users are not clear about the concept of UM or petty patent. Moreover, according to survey evidence, a large majority of IP attorneys and legal academics (over 90 percent) interviewed in Sri Lanka are highly positive about the idea of utility models. Similar responses have been received from the judicary and other innovation-related government institutions (as summarized in Appendix 2). As recent literature has argued, a UM system would benefit the light engineering sector which supplies parts and spares for machinery, equipment and tools.[764] Thus, there are both logical and evidentiary reasons to conclude that an STP regime may be viewed as an appropriate policy choice which can be implemented without diluting patent standards.[765]

764 S Kelegama, 'SL's lack of innovation, markets limit export growth' *Sunday Times* (Colombo, 13 March 2013), available at: <http://www.sundaytimes.lk/130310/business-times/sls-lack-of-innovation-markets-limit-export-growth-dr-kelegama-35527.html> (accessed 20 March 2013).

765 Interviews with members of the Sri Lankan judiciary also confirmed the need that high standards patent law should not be diluted.

6.2. Arguments against such an STP Regime

One cannot of course expect a successful system without reasonable critiques. As noted before, many experts are convinced that a UM system may serve as an effective policy instruments in incentivising local innovations. Others, however, strongly argue that the rationale for a utility model system is inherently unsound because the system is open to abuses. From a Sri Lankan perspective, one of the main concerns is that, since IP awareness as well as the use of the IP system is low, the perceived benefits of an STP would not reach the target group, namely the SME sector. Moreover, like in other jurisdictions such as Australia, there is a possibility that the system may be hijacked by large firms and multinational companies for strategic purposes. As noted in chapter 4, abusive filing of innovation patent applications has been a serious issue in Australia. This fear is also reasonable in light of Sri Lanka's legal obligation to provide national treatment and priority rights under the Paris Convention for utility models or petty patents of foreign companies.

As another concern, many critics have argued, copying and freedom of imitation lead to improved and value-added products and the creation of a new IP right would have a detrimental impact on SMEs ability to innovate.[766] An important question here is whether such freedom to imitate has really benefited SMEs in the last six decades in Sri Lanka. There is no significant evidence (at least from the patent data) to conclude that freedom to copy and imitate low-level innovations has brought significant and substantial benefits to the industrial sectors or as a result of such activities the SME sector advanced its technological capabilities in the Sri Lankan industrial landscape. Interestingly, a recent WIPO study has observed that imitation and copying actually discourages innovation due to the fact that all those who are second comers who copy or imitate an original innovator are unlikely or unwilling to engage in innovative activities themselves.[767] Thus, to that extent, this concern should be treated with caution in the Sri Lankan context.

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766 U Suthersanen, G Dutfield and KB Chow (eds), *Innovation Without Patents* (Edward Elgar 2007) 10.

767 HG Ruse-Khan, 'Utility Model Protection in Pakistan-A Feasible Option for Incentivising Incremental Innovation?' (2012), Study conducted for the World Intellectual Property Organisation 80 (copy on file with author).

Similarly, there is also a risk that big players in the market will apply for a large number of utility models and, in the absence of a proper examination, they will do so even in those cases where the validity is dubious.[768] This could lead to a situation where any competitor, including SMEs, would be threatened with infringement proceedings almost every time it engages in a new development and where the only way out would be by means of expensive litigation.[769] This would result in increased business risk for the SME sector in Sri Lanka. Viewed through the lens of jurisprudence, this would create a scenario that is similar to 'One-shotters (the Have-nots) v Repeat players (the Haves)' which has been introduced by Marc Galanter.[770] There is, of course, a possibility when big players in the market can flex their financial muscle to drive away small businesses, those who already have limited financial capabilities, from using the system. In effect, this would no doubt create disincentives. Paradoxically, the system created to incentivise domestic innovation would in turn create disincentives for SMEs. It is then likely to be a millstone around the neck of local industries.[771]

Furthermore, there may be another concern in Sri Lanka regarding the enforcement mechanism of STP rights. Sri Lanka is a Common Law country with an adversarial system of courts. Even if the granting process for a UM or petty patent right is less expensive and simple, the system would bring limited benefit given the extremely high costs involved in the enforcement of IP rights under an adversarial system. Currently, there are very few IP practitioners and law firms with adequate training in IP law and they generally charge high fees in litigation. Thus, the costs factor in enforcement may discourage SMEs from enforcing their rights. Moreover, the survey evidence from the banking sector in Sri Lanka confirmed that financial institutions are extremely reluctant to accept IP rights as collater-

768 P Torremans, Holyoak and Torremans Intellectual Property Law (4th edn OUP 2005) 163.

769 Ibid.

770 M Galanter, 'Why the "Haves" come out Ahead: Speculations on the Limits of Legal Change' (1974) 9/1 Law and Society Review 95, 123. According to Galanter, one-shotters (OS) and repeat players (RP) engage in many similar litigation over time. An OS may not receive quality professional advice because he may simply not be in a position to afford it and there is also doubt whether his case may be properly represented in a fair manner.

771 R Jacob, 'The Stephen Stewart Memorial Lecture: Industrial Property-Industry's Enemy' (1997) 1 Intellectual Property Quarterly 3, 11.

al for granting financial resources to SMEs and innovators.[772] In that case, the UM or the petty patent right would be of limited value for right holders in Sri Lanka. Similarly, since utility models are granted without substantive examination, the potential benefits of licensing and other means of technology transfer would be questionable due to the lack of legal certainty with regard to the scope of the rights. The emerging experience from Malaysia and Kenya also indicates that UM systems sometimes have not attracted much interest from the target group of users. Among other concerns, a UM or petty patent system generates unnecessary litigation, leads to proliferation of trivial patents creating barriers for follow-on innovations, and too many property rights can also lead to 'tragedy of the anticommons'.[773] There are also fears that an STP regime would lead to patent trolls and patent evergreening.[774] There is a reasonable concern among scholars that an introduction of an STP regime may unduly create an erosion of the public domain.[775]

6.3. Design and Structure

A key element of utility model protection is that it is a legal instrument which is outside the sphere of international influence and hence tends to

772 This was revealed during the interviews with the legal managers of five leading banks in Sri Lanka. (details of respondents are available in Appendix 2).

773 The anticommons thesis argues that, when too many people own pieces of one thing, nobody can use it. Too much of ownership leads to wasteful underuse. See MA Heller, 'The Tragedy of the Anticommons: A Concise Introduction and Lexicon' (2013) 76/ 1 The Modern Law Review 6, 8.

774 A patent troll is an entity that neither invents technology nor is interested in developing it; it acquires patents through licensing or purchase and sues another company by claiming that one of its products infringes on the acquired patents. Thus, a patent troll is just a collector of patents with the intention to sue or threaten other business. See R Mittal, 'From Invention to Innovation: Analysing the Tools and Trolls of the Journey' (2012) 54/4 Journal of the Indian Law Institute 489, 490.

775 The phrase 'public domain' is defined by the Oxford English dictionary as the state of belonging or being available to the public as a whole, especially through not being subject to copyright or other legal restrictions. The term 'public domain' can be generally linked to a 'common', in an intellectual rather than a physical sense. For the purpose of this discussion, it is taken to mean information that is not covered by IP rights or held in secret, but it is not itself a recognized legal category in its own right.

be specifically tailored for domestic/regional needs and concerns.[776] Thus, the main rationale of introducing an STP system in Sri Lanka is to incentivise minor and incremental innovation of SMEs in the country. Sri Lanka, as a developing country, may be able to reap the real benefits of adopting an STP system if such a regime is tailored to suit the needs of SMEs and other relevant domestic industries. Thus, the design of the legislation should be structured in such a way to strike the right balance between conflicting interests in the society. While a UM or a petty patent system enables the SME sector to take advantage of the system, it should not, however, discourage follow-on innovation and unduly restrict the public domain. It is certainly true that granting exclusive rights to new but obvious inventions can give rise to abusive behaviors. Therefore, it is of utmost importance to achieve an appropriate balance between private rights of the innovators on the one hand, and the rights of the general public to benefit from free competition on the other. As Roscoe Pound has postulated, the task of law is 'social engineering' and law should balance conflicting social interests in society which would result in legal progress.[777] In this STP scenario, there are three kinds of legally protected interests at stake namely, those of right holders and competitors as well as public interests. In fact, an STP system needs to offer lower barriers to protection in order to incentivize incremental innovation of the SME sector, but at the same time, restrictions and limitations of the right should be embedded in a UM or petty patent legislation, along with necessary safeguards against possible abuses of the system. The most challenging task is the designing of a balanced, effective, inexpensive and more accessible regime for Sri Lanka. As analysed in Chapter 4, the successful experience of other countries which have lived with STP systems for many years provide necessary guidance as 'best practices' to be followed by Sri Lankan policymakers.

776 U Suthersanen, 'Utility Models and Innovation in Developing Countries' (2006) UNCTAD-ICTSD Issue Paper No. 13 Project on IPRs and Sustainable Development ix.

777 R Pound, *Social Control Through Law* (Yale University Press, 1942) 64. RWG Friedmann, *Legal Theory* (4th edn, Stevens & Stevens Ltd 1967) 336.

6.4. Core Elements

6.4.1. Protected Subject-Matter/Scope of Protection

The scope of protection should not be restricted to mechanical devices in order to ensure that the STP regime incentivises innovation of a broader spectrum of Sri Lanka's creative class. Hence, the subject matter protected under a UM or a petty patent regime should be narrower than the subject-matter covered under the patent law. It is important that the scope of the new STP right should not contradict the patent provisions in the Sri Lankan IP Act. In this regard, software, pharmaceuticals, biotechnology and high-tech Information Technology (IT) products may be amongst those to be excluded from the utility model protection as the need for substantive examination appears particularly important to prevent abusive and anti-competitive blocking behaviour.[778] Moreover, the experience from Australia shows that the innovation patent system is quite often used by large and multinational companies to protect innovation in the area of software and IT-related technologies for strategic purposes. Like Thailand[779] and some other East Asian countries, a UM legislation in Sri Lanka should specifically exclude the above mentioned technology sectors as an STP regime does not envisage a substantive examination before grant. Interestingly, the option to exclude certain fields of technology from utility model protection appears as an important element of flexibility in designing a system that primarily fits domestic needs and responds to demands for encouraging incremental and minor innovations from SMEs.[780] Accordingly, TK-based innovation may possibly be included for protection as there is considerable interest and need for rapidly granted short-term protection for such innovations. It may also be appropriate for Sri Lanka to initially exclude processes and methods from STP protection which could be reviewed after five years of the implementation of the new regime. Moreover, the discoveries, inventions against public order and morality etc. as

778 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).

779 See Section 9 (1) of the Thai Patent Act of 1979 as last amended in 1999.

780 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).

excluded from patentability under the IP Act should be left out from the scope of the STP right in order to avoid any inconsistency.

6.4.2. Standard of Novelty

As noted above, the almost unlimited policy space left under the international IP instruments provide necessary freedom for Sri Lankan policymakers to decide whether a UM or petty patent right must satisfy an absolute, relative or local novelty standard. Most importantly, the degree of novelty should be in line with the main rationale of introducing an STP regime in Sri Lanka, namely incentivising minor and incremental innovations of the SME sector. Since the absolute or universal novelty standard[781] may be difficult to achieve by scientifically and technologically less advanced SME sector, Sri Lanka should, taking the German experience into consideration, consider adopting a relative novelty or domestic novelty standard.[782] A more rigid standard of novelty could inhibit adaptive and progressive imitation from receiving protection under the STP regime. Moreover, consideration of prior art abroad would reduce the prospect of securing UM rights for domestic innovators. Nevertheless, a local novelty standard would have several downsides such as protection of technologies that have already been patented abroad. Moreover, an important question is whether domestic novelty is any longer applicable in the era of the Internet where patent databases are accessible online. Furthermore, Sri Lanka should also consider granting a grace period of six months for innovators during which any disclosure by the applicant would not be considered for novelty assessment. This need to be introduced as a

781 Absolute or universal novelty means that invention is new throughout the world and thus all material made available to the public anywhere in the world forms part of the state of the art. In other words, for absolute novelty, the state of the art comprises everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the application.

782 According to Section 3 of the German UM Act 1986, the state of the art comprises any knowledge made available to the public by means of a *written description* (anywhere in the world) or by *use within the territory of the Republic of Germany*. It is obvious from this wording that neither oral disclosure, nor public use abroad can destroy novelty. Moreover, local novelty is usually restricted to within the country, where only local knowledge and use can destroy such novelty.

safeguard against the lack of IP awareness among in the domestic industrial sector, especially a large majority of SMEs and inventors in Sri Lanka are unaware of their rights and make public disclosure of their inventions via media without knowing the consequences.

6.4.3. Inventive Step Requirement

Like the novelty standard, Sri Lankan policymakers have the flexibility to decide on whether to lessen or eliminate the requirement of inventive step or non-obviousness for the STP regime.[783] It should be in any case a lower or smaller step than is required for the granting of a patent given the different objectives to be achieved under each system. One of the goals of the STP regime is to encourage minor adaptations or improvement of existing products or processes of domestic industries. Moreover, a large part of innovations of the Sri Lankan SME sector involve low or medium level technology resulting in a lower level of inventiveness.[784] Thus, most domestic inventions cannot be patented as they do not satisfy the test of inventive step.[785] A similar observation has been made in the Indian Discussion paper 2011 as discussed in Chapter 5. In fact, a UM right is easy to obtain due to the lower threshold of inventiveness. Since the inventive step requirement is not incorporated into an STP regime in many jurisdictions such as Malaysia, Kenya and Thailand, Sri Lanka should probably do away with this requirement. Nevertheless, if Sri Lanka decides to have an inventive step requirement in its UM legislation, it would be advisable to follow the Australian approach. Otherwise, the system would become less attractive for the target group of users defeating the purpose of adopting such a regime. Australian law requires that an innovation to be not only new, but also that it differs from what was already known in a way that is not merely superficial or peripheral to the invention.[786] The variation

783 Non-obviousness means the invention is different from the prior art in a way that would not be obvious to a person with ordinary skills in the art of the invention at the time of the invention was made.

784 This was revealed in the interviews with Sri Lankan SMEs and inventors. Details of respondents are provided in the Appendix 2. The same finding was confirmed by survey evidence from the NIPO.

785 Based on the survey evidence from the patent examiners at the NIPO.

786 R Gay, 'Editorial: The Innovative Step Conundrum' (2009) April, Managing IP 88, 98-99.

must be of practical significance to the way that the invention works.[787] Unlike for patents, there is, however, no requirement that an innovation must be non-obvious. Moreover, viewed through the experience of other countries, it could be argued that the absence of the inventive step requirement would encourage people in the grassroots level, especially in the agricultural or other rural sectors to register their simple innovations which would in most cases be for practical use in the field.[788] In principle, any innovation that represents a practical or functional advantage over prior art should be protected in order to incentivise minor and incremental innovations of SMEs in Sri Lanka. Such innovations can of course be successive improvements upon existing products and processes which bring out increases in technical efficiency and/or improvements in quality.[789]

6.4.4. Elevated Utility Requirement

As the American inventor and entrepreneur, Thomas Edison, once stated, the value of an idea lies in the using of it'.[790] In many countries where a UM or petty patent protection is available, industrial applicability or utility requirement is one of the main conditions for such protection. The underlying rationale of this concept is that patent protection should not be available for abstract ideas or purely intellectual creations that cannot be put to any use.[791] A patentable invention has to be concrete and should have a technical character.[792] From a policy perspective, an innovation should be useful in order to provide some immediate benefit to the public. In the event that the Sri Lankan policymakers decide to introduce an STP

787 Ibid.

788 See also W Weeraworawit, 'Utility Models in Thailand' in C Heath and A Kamperman-Sanders (eds), *Industrial property in the Bio-Medical Age: Challenges for Asia* (Kluwer Law 2003) 270.

789 RM Galhardi, Small High Technology Firms in Developing Countries: The case of biotechnology (Avebury Press 1994) 49.

790 As cited by Business and Industry Advisory Committee (BIAC) to OECD, Discussion Paper on 'Creativity, Innovation and Economic Growth in the 21st Century: An Affirmative Case for Intellectual property Rights (Paris, December 2003) 3, available at: <http://www.oecd.org/dataoecd/52/45/23375023.pdf> (accessed 10 November 2011).

791 CM Correa, *A Guide to Pharmaceutical Patents* – Volume 1(South Centre 2008) 81.

792 Ibid.

regime, given that there is no requirement for inventive step in such regime, it would be more appropriate to consider an enhanced utility requirement to encourage innovations that are closer to the market. Thus, based on the experience from East Asian countries, Sri Lanka can probably adopt a similar approach. Accordingly, an innovation shall be taken to be capable of industrial application if it can be made or used in any kind of industry, including handicrafts, agriculture and commerce.[793] Specifically, it may be of importance for a developing country like Sri Lanka to encourage innovations that have a utility value that can solve day to day technical problems by providing practical and functional advantages over existing prior art.[794] Moreover, the emerging patent jurisprudence from the US and Japan speaks in favour of a more elevated requirement of utility. In such regimes, there is a need that the claimed invention must show a specific, substantial and credible use.[795] Obviously, the enhanced utility requirement is a regulatory response to prevent certain technology fields such as pharmaceutical and biotechnology, from pushing the boundaries of patent law. This may not be the case for a UM system if such a regime is tailored to protect mechanical innovations. Nevertheless, if Sri Lanka decides to protect traditional medicines under a future UM system then it may be worth considering an elevated utility requirement in order to prevent misuse of the system.

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793 See the approach of the Thailand's petty patent regime. See Section 8 of the Thailand Patent Act of 1979 as last amended in 1999.

794 For example, as scholars have pointed out, utility models are granted to devices embodying a creative idea applicable to the shape, structure or other technological aspects of a product, such as an improved device capable of reducing the amount of water used to flush a toilet, or a bottle cork remover capable of operating faster than known devices. YK Kim and others, 'Appropriate Intellectual Property Protection and Economic Growth in Countries at Different levels of Development' (2012) 1/4 Research Policy 360, available at: <http://www.sciencedirect.com/science/article/pii/S0048733311001715> (accessed 2 June 2012).

795 See The United States Patent and Trademark Office (USPTO), Guidelines for Examination of Applications for compliance with the Utility Requirement Section 2107.

6.4.5. Granting Procedure

In many jurisdictions, UM rights are granted following a simple registration system. In other words, STP applications are subject to a preliminary examination which covers a formality check and a basic requirement examination. As a result the right is granted within a matter of months. One of the main advantages of the simple registration system is that it gives the right holders an opportunity for early action against any imitator. Therefore, Sri Lanka should consider a granting procedure that does not undergo a substantive examination prior to grant. From a Sri Lankan perspective, one of the main objectives of an STP is to provide for a quick, less expensive and more easily obtainable protection regime for the SME sector. The patent system is often criticized for being too slow, too expensive and too difficult for small innovators.[796] Moreover, critics argue that, in view of the well-known fact that 95 percent of all issued patents never earn any money and are never litigated and, therefore, do not need to undergo a thorough examination.[797] Besides, according to Lemley and Shapiro, most issued patents turn out to have little or no commercial significance, which is one reason why only 1.5 percent of patents are ever litigated, and only 0.1 percent of patents are ever litigated to trial.[798] If this is the case in many major patent jurisdictions, there should not be much concern in a small market like Sri Lanka. Nevertheless, there are concerns that non-substantive examination encourages many UM applications from old technologies to unpatentable technologies including in some cases photocopies of issued patents.[799] The experience from Malaysia shows that the substantive examination of UM applications before grant is one of the reasons for the system to become less attractive and Malaysia is currently considering an Amendment to the existing UI regime. The proposed amendment aims at changing to a non-substantive examination system

796 See LA Hollaar, 'A New Look at Patent Reform' (2004) April, Journal of the Patent and Trademark Office Society 743, 745.

797 KF Jorda, 'Utility Models: The Panacea for our Broken Patent System' (2007) Germeshausen Center Newsletter 5, available at: <http://www.ipo.org/wp-content/uploads/2013/03/utilitymodels.pdf> (accessed 30 August 2012).

798 MA Lemley and C Shapiro, 'Probabilitic Patents' (2005) 19/2 Journal of Economic Perspectives 75.

799 TT Moga, *China's Utility Model Patent System: Innovation Driver or Deterrent* (US Chamber of Commerce 2012) 15.

from the substantive examination before the grant in order to provide cheap and fast grant of right.[800]

6.4.6. Duration of Protection

The statutory life of a UM or a petty patent is one of the key determinants of the commercial exploitation of the exclusive rights granted under such a regime. Thus, there are several considerations to be made for deciding on the length of protection of an STP right. Most importantly, a shorter term of protection than patents is justifiable in view of the lower degree of novelty and inventiveness. Moreover, one of the objectives of a UM system is to provide suitable protection for simple and less technologically advanced innovations with a shorter commercial life because they are copied by competitors as soon as they appear in the market. Nevertheless, the period of exclusive rights should be reasonable to make registration costs and disclosure worth the effort.[801] Sri Lanka can distil experience from other jurisdictions in this regard. International experience shows that countries like Malaysia offer twenty years, while Somalia only provides for a four year term of protection. Thus, it may be argued that Sri Lanka should adopt a term ranging from five to eight years. Such a shorter duration of protection addresses the major concerns of critics such as patent evergreening and potential abuse of the system by the pharmaceutical industry because it needs to undergo compulsory clinical testing before actually getting to the market. Another argument in favour of a shorter term is that it would mitigate the impact of UM rights on follow-on innovation. Therefore, it is recommended that Sri Lanka should decide on an appropriate term of protection by analyzing the needs of the industrial landscape, especially the SME sector, and the underlying goals of such a system.

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800 See FR Dahalan, 'Utility Models protection in Malaysia-Utility Innovation' (WIPO Regional Conference on the Legislative, Economic and Policy Aspects of utility Models Protection System, Kuala Lumpur, 3-4 September 2012).

801 See PA Cumming, 'From Germany to Australia: Opportunity for a Second Tier Patent System in the United States' (2010) 19 Michigan State Journal of International Law 320.

6.4.7. Exceptions and Limitations

One should not forget that, like all the other rights, IP rights are socially rooted and they are subject to a certain number of limitations imposed by public interests.[802] Therefore, an effective STP regime should contain limits on the exercise of UM rights. In designing exceptions and limitations on the exclusive rights under a UM system, the international IP law framework does not contain provisions comparable to Articles 30, and 31 of the TRIPS Agreement which would have to be adhered to when policymakers in Sri Lanka decide on the issue of exceptions and other limitations (such as compulsory licenses).[803] Thus, Sri Lanka can freely determine which type of uses of the protected utility model do not require any authorisation of the right holder, whether any compensation is owed for such a use and what kind of conditions apply for invoking such an exception.[804] Therefore, Sri Lankan policymakers should consider including research and experimental use provisions and a prior use defence in order to ensure that innovations are not stifled. Moreover, a compulsory license may be used whenever the UM holder is unwilling to license his technology and there is a recognized public interest for its use.[805] The grounds for granting a compulsory license should definitely include non-working and dependent technical advances, government use, failure to supply the domestic market adequately or domestic working requirements as a matter of economic policy choice.[806]

6.5. Prosecution and Enforcement

As lucidly illustrated by Judge Posner in a recent case, patent litigants can be compared with violent beasts, using 'all their teeth and claws' in a

802 See generally, C Geiger, 'Fundamental Right, a Safeguard for coherence of Intellectual Property Law?' (2004) 35 International Review of Intellectual Property and Competition Law 268, 270.

803 Hen HG Ruse-Khan, 'Utility Model Protection in Pakistan-A Feasible Option for Incentivising Incremental Innovation?' (2012), Study conducted for the World Intellectual Property Organisation 90 (copy on file with author).

804 Ibid.

805 Ibid.

806 NAO Boztosum, 'Exploring the Utility Models for Fostering Innovation' (2010) 15 Journal of Intellectual Property Rights 429, 435.

'struggle for survival'.[807] A UM right is a negative right to exclude others from using the protected innovation as in the case of patents. The perceived benefits of any UM regime in part depend on the effective enforcement mechanism in the country. Thus, Sri Lanka needs to design enforcement tools for adequate and effective remedies. It should be appropriate to make available legal remedies such as injunctive relief and damages in case of infringement of UM rights. Nevertheless, since STP rights are granted without undergoing a substantive examination, the Court should not grant injunctive relief in infringement lawsuits until the right holder produces an obligatory search/evaluation report obtained from the National IP office.[808] Moreover, there should not be a presumption of validity as an issued UM or petty patent has not been subject to any substantive examination. Nevertheless, a UM right must be presumed valid upon the submission of the search report obtained from the National IP Office of Sri Lanka. As an enforcement related safeguard, there should be provisions for invalidation or cancellation proceedings before the National IP office. Moreover, a search report/evaluation report should also be available to any third party. Since litigation is well beyond the means of the SME sector, Sri Lanka should also consider making available alternative dispute mechanisms for holders of STP rights.

6.6. Interface with other IPR Systems

A UM or a petty patent right may possibly overlap with other IP such as patents and design rights. Since the patent law and the utility model law both set out to protect technical inventions, thus frictions between the two systems cannot be ruled out. Therefore, it is important to design the STP regime in such a way as to ensure a proper balance between the two systems.[809] Significantly, in the Sri Lankan context, any new addition to the existing IP regime has to work within the general IP framework of the country. Under Sri Lankan STP law, there should be a very clear provision

807 Posner J in *Apple Inc. v. Motorola Inc*. No. 1:11-cv-08540, 22 June 2012/District Court for the Northern District of Illinois Eastern Division.

808 In an evaluation report, the IP office should confirm that registered UM or Petty patent right fulfils the conditions of protection.

809 European Commission, 'Green Paper on the Protection of Utility Models in the Single Market Document' COM (95) 370 final.

that allows for no dual protection for the same or identical invention, and it should be made compulsory that UM or petty patent right should be abandoned in the event a patent right is granted. Such a provision is necessary to prevent the potential for double patenting. Nevertheless, it is also important to allow conversion of patent applications to applications for STP, and *vice versa*, especially in view of low level IP awareness in the country. Most innovators and SMEs in Sri Lanka may not have a clear idea of the degree of inventiveness of their innovations. However, it may be also important to keep this right of conversion within limits in order to prevent abusive filing.

6.7. Guarding against Abuse

The unfortunate reputation of utility models of 'easy to get in, hard to get out' is an invitation for free riders and actors.[810] Since STP rights are granted without undergoing any substantive examination, there is always a potential risk of abuse. Therefore, the risk of abuse could be addressed by built-in checks and balance mechanisms which would serve the function of watch dogs or gate keepers. Provisions for invalidation and requiring production of an evaluation report before enforcing the right may be used to discourage such abusive behaviours. As a countermeasure against potential abuse by holders of a UM right, Sri Lanka should possibly introduce an obligatory search/evaluation Report as a precondition for enforcement. Moreover, experience from Australia and China shows that many large companies tend to use the STP regime for strategic purposes. Thus, it is important that Sri Lanka should reduce the scope for such abusive strategies by restricting permissible subject matter, enforcing limitations on conversion and reducing the term of protection. Moreover, the use of compulsory licensing provisions and liability rules can be used to further mitigate potential abuses of the system. Therefore, it is of utmost importance that appropriate safeguards are placed in order to prevent the misuse of the system.

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810 TT Moga, *China's Utility Model Patent System: Innovation Driver or Deterrent* (Research Paper, US Chamber of Commerce 2012) Forward and Commentary provided by T Pattloch, 4.

6.8. Domestic IP Infrastructure (IP Office, Courts, Professionals)

Not only the legal framework but also the legal infrastructure matters a lot for a developing country that provides for a new IP right. Even though Sri Lanka has a modern legal framework, there are many issues to be resolved. One of the concerns is whether the country's judiciary has the necessary expertise in resolving IP disputes. Even the judiciary in a recent patent litigation observed "at this stage, I should state with humility that I do not possess such knowledge and expertise in the field of engineering to decide on novelty and inventive step of the product and come to a proper conclusion. Therefore I am of the view that this Court may come to an incorrect decision, if the court decides on novelty and inventive step of the product in question, without considering expert opinion".[811] In the event that Sri Lanka introduces a utility model or a petty patent system it has to be implemented through a comprehensive and coordinated approach.[812] Merely legislative and regulatory instruments would not serve the purpose unless the target stakeholders have proper awareness, access and facilitation to use this system coupled with strong enforcement machinery. This system should be used as a trade and industrial policy tool rather than rolling it out merely as another form of IP protection.[813]

One of the major concerns that Sri Lanka has to address is the lack of expertise in the area of IP law. Obviously, there is an acute dearth of experts who can draft patent applications. The same is certainly true for utility models or petty patents. Like most other developing countries, Sri Lanka clearly lags behind in this area and does not have a system of patent attorneys skillful in drafting the claims.[814] Thus, Sri Lanka also needs to consider creating a strong patent attorney profession with the involvement

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811 See KT Chitrasiri, Decisions on Intellectual property Issues of the Commercial High Court of Sri Lanka (Vishva Lekha 2005) 70. Chitrasiri J in *Michael Laurents Cyrille Cadermanpulle v Mohamed Haniffa Mohamed Ajmal & Another* (2004) Commercial High Court case No:33/2004 (03) (decided on 2 February 2005).

812 HG Ruse-Khan, 'Utility Model Protection in Pakistan-A Feasible Option for Incentivising Incremental Innovation?' (2012) Study conducted for the World Intellectual Property Organisation 95 (copy on file with author).

813 Ibid.

814 W Weeraworawit, 'Utility Models in Thailand' in C Heath and A Kamperman Sanders (eds), *Industrial property in the Bio-Medical Age: Challenges for Asia* (Kluwer Law 2003) 270.

of science and technology graduates passing out from the country's universities. Our survey evidence also supported this proposition that only a handful of law firms are equipped with necessary skills to handle patent cases. If this issue is not sorted out, any new right will suffer the same fate as patents and would not meet the objectives for which it was introduced. Until now, this problem has not caused many concerns for standard patents because most applications are filed from abroad and a good part of local applications are prepared and filed by very few law firms in the capital Colombo. With regard to the patent granting process, the National Intellectual Property Office (NIPO) does not have a sufficient number of qualified patent examiners. It was revealed through our survey evidence that there are currently less than five patent examiners attached to NIPO. Unlike Singapore or Malaysian IP offices, NIPO suffers from a lack of quality human resources. In the light of an expected increase in applications, the need to increase the patent office's ability to handle the increased capacity through training programs for patent examiners is crucially important. Otherwise, even if a UM system is introduced, the industries would not be able to reap its benefits. It may also be important that the Sri Lankan IP office should implement a UM helpdesk concept for users of the STP system which can be used by the SME sector in Sri Lanka.

In order to successfully implement an innovation promotion framework through a UM regime, Sri Lanka needs to raise awareness on and encourage the use of the UM system by establishing 'innovation centres' at the divisional secretariat level[815] through the *'Vidatha'* program which was designed by the government to transfer technology to villages. Officials attached to *Vidatha* resource centres can help to build public awareness of the new system and, in particular to provide counseling to SMEs and individual innovators who are in need of such assistance at the grassroots level. It is worth mentioning here the steps taken by the National Innovation Foundation of India to provide free legal service for the grassroots innovators. Sri Lanka can explore the possibility of devising a system to provide *pro bono* support from the legal community channeled through the Inventors Commission of Sri Lanka whenever so required. It would be unimag-

815 At present, there are 9 Provinces, 25 Districts, and 256 Divisional Secretariats in Sri Lanka. The districts of the Sri Lanka are divided into administrative sub-units known as *divisional secretariats.* See Article 5 and 8th Schedule of the Constitution of Sri Lanka 1978 (as amended).

inable that any system would benefit or reach the rural level unless such a support mechanism is in place. Of course, this system can be implemented by following a bottom-up-approach as opposed to the current top-down-approach taken in relation to the registration of patent rights in the country. As pointed out by many innovators and SMEs during our interviews conducted in Sri Lanka, there should be a 'chain of help' in order to bring budding innovations to reach the NIPO in capital city. In so doing, the government may need to allocate additional resources and should be able to recruit new graduates, after extending specialized training facilities, creating a post of 'innovation promotion officers'. In this way, the government can effectively make use of thousands of graduates from local universities who become mostly unemployed thereafter to contribute to the nation's development.

6.9. TK-based Innovation and Second-Tier Protection

Intellectual creations at all levels should be nurtured so as to develop an innovation culture in a country.[816] TK-based innovations, however, remain on the periphery of the broader discourse on innovation and have only received little attention. At least, in the Sri Lankan context, it is time to increase the role of traditional innovators in its development strategy. TK-based innovations are generally characterized by value addition and incremental steps. The incentive theory informs us that, by affording an appropriate intellectual property protection, a society can encourage and promote such innovation. One of the problems that Sri Lanka's TK-based innovation sector faces is that most companies and family businesses heavily rely on trade secrecy. This has a negative impact on its development in terms of quality. This leads to chilling effects on innovation. For example, a firm might reduce its research and development department to an inefficiently small number of employees, or hire loyal but less-skilled family members in order to protect secrecy.[817] Moreover, TK-based innovation is

816 Federation of Indian Chamber of Commerce and Industry (FICCI), FICCI's Suggestions on Proposed National Intellectual Property Policy (2011) FICCI 3, available at: <http://www.ficci.com/Sedocument/20170/ip-policy.pdf> (accessed 2 June 2012).

817 See RG Bone, 'A New Look at Trade Secret Law: Doctrine in Search of Justification' (1998) 86/2 California Law Review 241, 272-273.

an area that is not primarily served by the patent regime due to stringent patentability criteria. Thus, it is necessary to provide an additional protection option to facilitate TK-inspired innovation in the Sri Lankan context. According to commentators, TK can trigger new product development, especially in sectors of food and beverages, traditional medicines, personal care and cosmetics.[818] In particular, in Sri Lanka, herbal medicine production and cosmetic sectors have indicated great market demand in the recent years. As such, Sri Lankan policymakers should consider including the TK-based innovation sector into the scheme of protection under UM legislation in order to provide necessary incentives for such innovation.

6.9.1. Why is such a Form of Protection Important?

IP is the currency of the knowledge-based economy.[819] Moreover, TK-based innovations have become items of commercial significance in the modern world. Traditional communities are seeking protection for their works similar to that enjoyed by IP owners, endowing works with the ability to earn revenue.[820] Without appropriate IP protection, herbalists and traditional healers would not have incentives to monetize their ideas. The IP system places knowledge and ideas in a market system, acting simultaneously as a legal framework that facilitates disputes over ownership and infringement.[821] Any STP regime is likely to fall short of that expectation if it does not provide protection for TK-based innovations. The current patent regime does not provide a suitable means of protecting minor and incremental innovation of TK-based innovators. The Kenyan experience shows that a UM regime can provide a window of opportunity for TK-

818 See T Cottier and M Panizzon, 'Legal Perspectives on Traditional Knowledge: The case for Intellectual Property Protection' in KE Maskus and JH Reichman (eds), *International Public Goods and Transfer of Technology under a Globalized Intellectual Property Regime* (Cambridge University Press 2005) 564, 567.

819 R Ghafele and B Gibert, 'Promoting Intellectual Property Monetization in Developing Countries: A Review of Issues and Strategies to Support Knowledge-driven Growth' (2012) Policy Research Working Paper 6143-World Bank 14.

820 O Dean, 'From Folklore to Folk Law in South Africa' (2009) May, Managing IP 132.

821 R Ghafele and B Gibert, 'Promoting Intellectual Property Monetization in Developing Countries: A Review of Issues and Strategies to Support Knowledge-driven Growth' (2012) Policy Research Working Paper 6143-World Bank 14.

based innovators, even though the use of the system is very low, mainly due to lack of awareness and other practical hurdles faced by innovators. There is also a strong argument that an STP regime should not extend its protection to TK-based innovation as such a system can be misused by large and multinational firms. But from a practical point of view, one can counter-argue that it is difficult if not impossible to create a system only for the benefit of the SME sector without at the same time creating advantages for large companies. Perhaps even more importantly, to prevent small businesses receiving benefits from the IP system is as bad, if not worse, than letting large companies take advantage of it.[822]

According to commentators, a utility model system is more suited for protecting TK-based innovations.[823] Under a utility model regime, the term of protection should be from eight to ten years and can be more but less than twenty years. Such a system is ideally suited for innovations that build upon existing innovations, without much original contribution and the products have market potential.[824] SMEs and individual entrepreneurs who hold TK and want to develop TK-based innovations can benefit from this scheme. For example an SME that wants to develop and market a TK-based product could come up with an improved process or make the product available in a new form such as a solution or a cream, whereas earlier it was only available as a powder or an extract from dry leaves. The process also increases the efficacy of the product.[825] There should be a more accessible protection mechanism for TK-based innovations that merit protection in order to recognize, respect and reward traditional knowledge innovators.

6.9.2. Herbal and Cosmetic Product Sector

Most of the indigenous knowledge and innovation particularly in the herbal medicine sector may be patentable if they are given modern techno-

822 See the same line of argument by A Gupta in 'Can protecting intellectual property rights be of any consequence for poor people?' (2007) ICRIER Paper 21 <http://www.sristi.org/anilg/papers/> (accessed 10 June 2011).

823 See KR Srinivas, 'Traditional Knowledge and Intellectual Property Rights: A Note on Issues, Some Solutions and Some Suggestions' (2008) 3/1 Asian Journal of WTO & International Health Law and Policy 81, 100..

824 Ibid.

825 Ibid.

logical touches.[826] Unfortunately, for many of the indigenous people this technology is relatively unavailable.[827] Thus, an STP right may be used as a vehicle for technology transfer to TK-based industries in Sri Lanka. Most importantly, the policymaker should design the STP regime so as to include TK-based herbal and cosmetic innovations into the new legislation as these are the main industrial sectors of the domestic SMEs in Sri Lanka that TK-inspired innovations emanate from.[828]

6.9.3. Traditional Medicines: a Potential Candidate for Protection?

All countries in South Asia have a rich heritage of traditional medicine (TM). Traditional systems of medicine are a legacy of several thousands of years of human experience in the selection of plants for preventive and curative healthcare.[829] As is well-known, TM plays a crucial role in health-care and serves the health needs of a large part of the population in developing countries. Access to modern health care services and medicine may be limited in developing countries such Sri Lanka. TM becomes the only affordable treatment available to poor people and the time has come to revisit policies promoting research and development in the area of TM.[830] Viewed from a historical perspective, TM has been practiced in Sri Lanka for 3,000 years. At present, there are four systems of traditional medical systems in Sri Lanka viz. Ayurveda, Siddha, Unani and Deshiya Chikitsa.[831] The most important among them is the Ayurveda, traditional medical system which also forms part of the national health services pro-

826 JM Mbeva, 'Experiences and Lessons Learned regarding the Use of Existing Intellectual Property Rights Instruments for Protection of Traditional Knowledge' (UNCTAD Expert Meeting on Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices, Geneva, 2000) 7.

827 Ibid.

828 See CM Correa, Protection and Promotion of Traditional Medicines: Implications for Public Health in Developing Countries (South Center, 2002) 91.

829 K Balasubramaniam, 'Role of Traditional Medicine in Promoting the Well-Being of the People in South Asia' (South Asian Regional Conference of Traditional Medicine, Bangalore, India, July 2006).

830 RA Mashelkar, 'Intellectual Property Rights and The Third World' (2001) 18/8 Current Science 955, available at: <http://www.sristi.org/material/1.2intellectual%20property%20and%20the%20third%20world.pdf> (accessed 15 June 2012).

831 PK Perera, 'Current scenario of herbal medicine in Sri Lanka' (ASSOCHAM, 4th Annual Herbal International Summit, NSIC, New Delhi on 14 -15 April, 2012).

vided by the government of Sri Lanka including a separate ministry for Indigenous Medicine. The word Ayurveda is derived from AYU and VEDA. AYU means life, VEDA means Science or knowledge. That means the science of life. Ayurveda embraces all living things, animate and inanimate. It is divided into three main branches viz. Nara Ayurveda dealing with human life, Satva Ayurveda the science dealing with animal life and its diseases, Vriksha Ayurveda the science dealing with plant life its growth and diseases.[832] At present, Ayurveda serves a large proportion of the population with one Ayurvedic physician per 3,000 people in Sri Lanka. About 60 to 70% of the rural population relies on traditional and natural medicine for their primary health care.[833]

Sri Lanka needs to encourage research and development activities including drug standardization in order to attain a global reach. There is a need to take some positive steps to avoid losing knowledge relating to valuable indigenous medicines. The problem associated with the lack of investment in research and development in Ayurveda research has hampered its development. This may be caused by the lack of protection or security for their rights. The existing knowledge cannot easily be made available to the researcher due to the unwillingness of local healers to reveal such knowledge, especially family recipes of indigenous medicinal treatments including medicines, preparation, dosage and usage. Such knowledge exists either in the form of oral prescriptions jealously guarded as family secrets and sometimes handed down by one generation to the other or it is contained in Ola manuscripts safely locked up in museums, temples or individual homes.[834] As one Sri Lankan commentator has observed:

> ‘There is a lot of scope for Sri Lanka to achieve a higher rank in the global market through the export of quality products from medicinal and aromatic plants. But Sri Lanka seems to be lagging behind in using advanced technolo-

832 Bandaranaike Memorial Ayurveda Research Institute of Sri Lanka, ‘Introduction of Ayurveda and History’ (2012) website of BMARISL, available at: <http://www.indigenousmedimini.gov.lk/Research_institute.html> (accessed 10 January 2012).

833 PK Perera, ‘Current scenario of herbal medicine in Sri Lanka’ (ASSOCHAM, 4th Annual Herbal International Summit, NSIC, New Delhi on 14 -15 April, 2012). .

834 Bandaranaike Memorial Ayurveda Research Institute of Sri Lanka, ‘Introduction of Ayurveda and History’ (2012) website of BMARISL, available at: <http://www.indigenousmedimini.gov.lk/Research_institute.html> (accessed 10 January 2012).

> gy and standardization procedures in herbal products and is ranked lower in the herbal medicine global market share, while China occupies nearly 30 pecent of the global market with high tech issues. Therefore Sri Lanka needs to be focused on the quality assurance with multidisciplinary researches within the country and collaborative works with other high tech used countries. Further Good Laboratory Practices (GLP) and Good Manufacturing Practices (GMPs) are also needed to apply for produce good quality medicinal products in Sri Lanka. Without overcoming these entire measures the current scenario is not sufficient to increase the global market share of the herbal drug industry and herbal medical practice for Sri Lanka'.[835]

According to our survey evidence, one of the main challenges faced in the development of the TM industry is the lack of funding for R&D efforts.[836] Moreover, the lack of advanced technological capabilities has considerably reduced reaping real benefits from the traditional medicine industry in Sri Lanka. Significantly, there is a huge demand for high quality Ayurvedic medicines and beauticare products. Nevertheless, there is no effective protection mechanism for incremental innovations which occur in this area. Thus, an STP regime would possibly accord a protection option for such innovations which would also facilitate technology transfer through licensing agreements. Most importantly, the STP legislation should specifically allow the protection of non-technical subject inventions, particularly chemical substances.[837]

If Sri Lankan policymakers decide to extend the scope of protection of the STP regime to TK-based innovation and traditional medicines, then there should be specific provisions in the STP law to address the concerns of critics regarding the potential abuses of the system. These safeguards should necessarily include basic principles that have been developed at the international level such as prior informed consent, disclosure of origin and equitable sharing of benefits.[838] Moreover, there are increasing concerns over the erosion of public domain and blocking effect on follow-on inno-

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835 PK Perera, 'Current scenario of herbal medicine in Sri Lanka' (ASSOCHAM, 4th Annual Herbal International Summit, NSIC, New Delhi on 14 -15 April, 2012).

836 Revealed through personal interviews with the members of the Bandaranaike Memorial Ayurveda Research Institute and the faculty of Indigenous Medicine, University of Colombo, Sri Lanka as well as indigenous medicine practitioners/ (details of respondents are provided in the Appendix 2).

837 See CM Correa, Protection and Promotion of Traditional Medicines: Implications for Public Health in Developing Countries (South Center 2002) 91.

838 See the obligations under Articles 1 and 8 (j) of the Convention on Biological Diversity 1992.

vations if STP rights are granted to TK-inspired innovators. In order to address these fears, Sri Lanka should appropriately use a liability regime embedded into the STP legislation.[839] Under such a Compensatory Liability Regime (CLR), which is built on 'take and pay' principle, the second comers can access and use the protected subject matter for specific purposes without permission, but they must compensate the first comer for the uses in one manner or another.[840] This will also motivate second users to invest in follow-on innovations or incremental innovations.[841] Moreover, one of the other main arguments against granting STP for TK-based innovations is that the protection of such innovations in Sri Lanka would not prevent multinational companies from developed countries from misappropriating them. Nevertheless, the benefits of an STP for TK-based innovation mainly depend on the specific design of the national legislation.

6.10. Conclusion

Sri Lanka is a developing nation with limited technological resources and capabilities. For decades, the country has suffered from a shortage of homegrown creativity due to the low priority of successive governments for science, technology and innovation. The industrial landscape of Sri Lanka is characterized by a large SME sector which is considered to be the backbone of the country's economy. The SME sector is still in the initial stage of the technological ladder and the innovations that emanate from the SME sector mainly consist in minor adaptations to the existing products and are of an informal nature. Moreover, there is a high degree of innovation at the grassroot level involving TK-based less technological advances. It can be argued that current patent and design regimes do not provide suitable means of protecting low-level innovations and thus disincentivise such innovators. Nevertheless, minor and incremental innovations are most vulnerable to unfair copying and imitation, and thus, there exits an apparent need for appropriate legal protection for commercial exploitation of such innovations. Therefore, the findings of this research sup-

839 See JH Reichmann, 'Of Green Tulips and Legal Kudzu: Repacking Rights in Subpatentable Innovation' (2002) 53/6 Vanderbilt Law Review 1743, 1777-1778.

840 See C Correa, 'Designing Patent Policies suited to Developing Countries Needs' (2008) 10/2 Econômica, Rio de Janeiro 82, 89.

841 Ibid.

port the view that an STP system tailored to the specific characteristics of the innovation landscape of Sri Lanka is required to incentivise non-patentable innovations. Nevertheless, further consultation with stakeholders is required in order to make an informed decision. Moreover, the arguments offered in favour of the introduction of a UM regime in India and Pakistan should be taken into account by the policymakers of Sri Lanka. Most importantly, the ideal STP regime should involve much lower requirements for protection than that of patents and should be kept simple, fast and inexpensive in order to encourage the use of the system by the SME sector. However, an STP regime does certainly come with risks. An unexamined right has the inherent quality of uncertainty and such a regime can be manipulated by large players in the market. Thus, appropriate safeguards against potential abuses should be built into the system. The introduction of a new right also involves social costs and if the costs outweigh the benefits then such a system would no doubt become unnecessary and counterproductive. Moreover, the Sri Lankan government needs to take further positive steps to enhance IP awareness in the country and to enhance the capacity of domestic firms to absorb technology. In conclusion, it could well be argued that an appropriately designed STP regime would positively and significantly contribute to technological progress in Sri Lanka.