



The Asia Foundation  
Improving Lives. Expanding Opportunities

# Policy Brief

## Intellectual Property Rights in Global Value Chains: *The State of Play in India*

ARPAN BANERJEE | MARCH 2023

"Think Tank Engagement on Indo-Pacific Issues"

# About the Project

This policy brief is part of The Asia Foundation's project 'Think Tank Engagement on Indo-Pacific Issues' supported by the US Embassy, New Delhi. The project's goal is to unpack opportunities for India to expand its integration into global value chains through policy research and discourse, thereby strengthening India's ability to emerge as a key economic player in the Indo-Pacific region and improving the regional balance of power. The Asia Foundation in collaboration with the Confederation of Indian Industries (CII) convened key stakeholders to discuss, analyse, and formulate policy recommendations about India's greater economic integration. This policy brief is part of knowledge products to explore opportunities under three critical areas to improve India's GVC integration: Trade Facilitation, Intellectual Property Rights, and Gender Mainstreaming.

# About the Author

Arpan Banerjee is an intellectual property rights consultant and academic. In the former role, Arpan consults for Authentix Online Brand Protection and the Alliance for Creativity and Entertainment (ACE). In the latter role, Arpan has taught as a faculty member at IIT Kharagpur and Jindal Global Law School. He has also spent time as a researcher overseas, including at Bucerius Law School in Hamburg (as a recipient of the Humboldt Foundation German Chancellor Fellowship), the Oxford Intellectual Property Rights Centre (as a Visiting Research Fellow), the University of Tel Aviv (as a Cegla Scholar) and the University of New South Wales (as a Scientia Scholar). Arpan has numerous publications to his credit and has received a number of prizes, grants and fellowships. Arpan is an alumnus of the National University of Juridical Sciences in Kolkata (BA LLB (Honours) and King's College, London (LLM in Intellectual Property Law).

## Disclaimer

This report was funded by the United States Government through the 'Think Tank Engagement on Indo-Pacific Issues' project of The Asia Foundation. The opinions expressed here are solely of the authors and do not necessarily reflect those of the United States Government or the Foundation.

Cover image: Shutterstock

Design: Reuben Varghese, Jajabor Brand Consultancy

March 2023



**The Asia Foundation**  
Improving Lives. Expanding Opportunities

**Intellectual Property Rights in Global Value Chains:**  
*The State of Play in India*

ARPAN BANERJEE  
Assistant Professor and Executive Director  
Centre for Intellectual Property and Technology Law

# Contents

|  |    |
|--|----|
| Introduction                                   | 1  |
| Notable Policy Initiatives                     | 2  |
| Areas of Potential Reform in India's IP Regime | 4  |
| Conclusion                                     | 7  |
| Long-term measures                             | 8  |
| Short and Medium-term measures                 | 8  |
| References                                     | 10 |

# Introduction

The expression 'value chain' refers to the 'full range of activities that firms and workers do to bring a product from its conception to its end use and beyond'. With the advent of globalisation, it has become routine for the actors and activities in a value chain to be dispersed across countries, hence giving rise to the expression 'Global Value Chain' (GVC). Various studies have used everyday products to illustrate the relevance of GVCs — including, significantly, the involvement of emerging economies in GVCs. For example, an OECD report has cited the example of Nutella, whose supply, manufacturing, and retail chains encompass multiple African and Asian countries<sup>1</sup>. Another study, published by the Graduate Institute for Policy Studies in Japan, has pointed to the manufacture of iPhones. The study has observed that Chinese companies, from once being 'simple assemblers' of iPhone components manufactured in developed countries, have gradually 'moved to the upper rungs of the iPhone value chain ladder' to manufacture more sophisticated components, such as displays, circuit boards, speaker modules and cameras<sup>2</sup>. In the context of the services industries, the most recent edition of the Global Value Chain Development Report (jointly published by the WTO and the Asian Development Bank) has discussed the offshoring of 'middle to low-end coding services' by various software companies to India<sup>3</sup>.

As emerging economies look to enhance their participation in GVCs and improve the quality of goods and services provided by their local industries, the role of intellectual property (IP) has assumed great importance.

IP is estimated to add, on average, twice as much value as tangible capital to products traded and manufactured along GVCs<sup>4</sup>. In the Global Value Chain Development Report, it has been argued that a strong IP regime can potentially benefit emerging economies by drawing 'spillovers' of knowledge and R&D and incentivising multinational corporations concerned about leakages of technological knowhow<sup>5</sup>. A nationwide study published by the Indian Council for Research on International Economic Relations (ICRIER) — surveying firms in the automotive, chemicals, pharmaceuticals and electronic industries — has reaffirmed this view<sup>6</sup>.

Similarly, a study by the World Bank has suggested that countries with strong IP protections tend to attract higher FDI and receive higher technology flows through licences and royalties<sup>7</sup>. Conversely, weak IP regimes

<sup>1</sup> Gary Gereffi and Karina Fernandez-Stark, *Global Value Chain Analysis: A Primer 4* (2nd edn, Centre on Globalization, Governance & Competitiveness, Duke University, North Carolina, 2016) <[https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/12488/2016-07-28\\_GVC%20Primer%202016\\_2nd%20edition.pdf](https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/12488/2016-07-28_GVC%20Primer%202016_2nd%20edition.pdf)>.

<sup>2</sup> Mapping Global Value Chains 17-18 (OECD, 2012) <[https://www.oecd.org/dac/ati/MappingGlobalValueChains\\_web\\_usb.pdf](https://www.oecd.org/dac/ati/MappingGlobalValueChains_web_usb.pdf)>.

<sup>3</sup> Yuying Xing, 'How the iPhone Widens the US Trade Deficit with China: the Case of the iPhone X' (GRIPS Discussion Paper No. 19-21, National Graduate Institute for Policy Studies, Tokyo, 2019) <<https://ideas.repec.org/p/ngi/dpaper/19-21.html>>.

<sup>4</sup> Enrico Nano and Victor Stolzenburg, 'The Role of Global Services Value Chains for Services-Led Development', in *Global Value Chain Development Report 2021: Beyond Production 105* (WTO and Asian Development Bank et al., 2022) <[https://www.wto.org/english/res\\_e/booksp\\_e/00\\_gvc\\_dev\\_report\\_2021\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/00_gvc_dev_report_2021_e.pdf)>.

<sup>5</sup> Yuying Xing, David Dollar and Bo Meng, 'Trade in Intangible Assets along Global Value Chains and Intellectual Property Protection', in *Global Value Chain Development Report 2021: Beyond Production 44* (WTO and Asian Development Bank et al., 2022) <[https://www.wto.org/english/res\\_e/booksp\\_e/00\\_gvc\\_dev\\_report\\_2021\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/00_gvc_dev_report_2021_e.pdf)>.

<sup>6</sup> Elisabetta Gentile et al., 'Productivity Growth, Innovation, and Upgrading along Global Value Chains', in *Global Value Chain Development Report 2021: Beyond Production 75-8* (WTO and Asian Development Bank et al., 2022) <[https://www.wto.org/english/res\\_e/booksp\\_e/00\\_gvc\\_dev\\_report\\_2021\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/00_gvc_dev_report_2021_e.pdf)>.

<sup>7</sup> Saon Ray and Smita Miglani, 'India's GVC Integration: An analysis of upgrading efforts and facilitation of lead firms', Working Paper No. 386, ICRIER (ICRIER, 2022) <[https://icrier.org/pdf/Working\\_Paper\\_386.pdf](https://icrier.org/pdf/Working_Paper_386.pdf)>.

<sup>8</sup> Trading for Development: In the Age of Global Value Chains 173 (World Bank Group 2020) <<https://thedocs.worldbank.org/en/doc/124681548175938170-0050022019/original/WorldDevelopmentReport2020DraftReport.pdf>>.

in countries are seen as impeding participation in GVCs, especially the higher value-added activities in GVCs<sup>9</sup>. As an apparent consequence, countries are increasingly entering into deep preferential trade agreements (PTAs), which set rules on IP protection go beyond the 1990s-era provisions of the WTO TRIPS Agreement<sup>10</sup>. Some academics, however, have struck a contrary note to these hypotheses. For example, in one view, technology transfer agreements are 'inherently hierarchical', as WIPO statistics on patent filing show that technologies 'mainly reside in undertakings in the global North'<sup>11</sup>. However, in the case of India, its geopolitical and macroeconomic positions are arguably much stronger than those of most other developing countries. Indeed, in recent years, India's domestic priorities have progressively aimed to promote innovation, and simultaneously providing greater IP protection to both domestic and international rightsholders, with the intention of improving India's participation in GVCs. This document provides a brief overview of a few notable policy initiatives in this regard, along with areas of potential reform in India's IP regime.

## Notable Policy Initiatives

According to the ICRIER study mentioned above, 'ideological considerations' in industrial policy, as well as a lack of emphasis in competing in international markets, have historically constrained innovation in India, thus leading to weak GVC integration<sup>12</sup>. A glimpse at Indian government policies over the past decade would suggest gradual attempts to reverse this trend. In 2011, the Indian government published the National Manufacturing Policy. The Policy expressed concern over the 'relatively low-level of "value addition" in the products manufactured in the country', and stated that India's manufacturing competitiveness needed to be raised urgently<sup>13</sup>. The Policy accordingly recommended boosting innovation in India and increasing the levels of foreign investments and technology flowing into the country<sup>14</sup>. The Policy advised the 'Judicious development of an Intellectual Property regime to enable more collaborative innovation', adding that India needed to 'be very cautious about further expansions to the TRIPS regime which could have implications on development and ownership of technologies within the country'.<sup>15</sup> While the Policy did not elaborate on the latter point, at least two major reforms, incorporating WIPO agreements that went beyond the TRIPS regime, soon took place in India. First, in 2012, various principles recognised in the WIPO Copyright Treaty (WCT) and WIPO Performances and Phonograms Treaty (WPPT) were incorporated in the Copyright Act, 1957 by way of Copyright (Amendment) Act, 2012, even without India signing the treaties at the time<sup>16</sup>. These amendments, among other things, granted exclusive and moral rights of performers that were previously absent in the Copyright Act, 1957, and strengthened anti-piracy provisions in the context of the internet. Second, in 2013, India ratified the Madrid Protocol to better protect trademarks internationally<sup>17</sup>. This measure (through eventual amendments to the Indian trademark legislation) has made it faster and more efficient for trademark owners based overseas to register their rights in India (and vice versa).

In 2014, the government undertook a series of measures aimed at boosting domestic innovation, manufacturing

<sup>9</sup> Ibid 173

<sup>10</sup> Ibid 173-4. See also Keith E Maskus and William Ridley, 'Trade Impacts of Intellectual-Property-Related PTAs: Evidence from Using the World Bank Deep Trade Agreements Database' (Policy Research Working Paper 9659, World Bank Group, 2021) <<https://openknowledge.worldbank.org/handle/10986/35572>>.

<sup>11</sup> Fiona Macmillan, 'What happens as technology travels on the global value chain?', *Afronomics Law* (12 November 2020) <<https://www.afronomicslaw.org/2020/11/12/what-happens-as-technology-travels-on-the-global-value-chain/>>.

<sup>12</sup> Ray and Miglani, above n 9.

<sup>13</sup> National Manufacturing Policy 3-4, para 1.6 (Ministry of Commerce & Industry, Government of India) <[https://www.meit.gov.in/writereaddata/files/National%20Manufacturing%20Policy%20\(2011\)%20\(167%20KB\).pdf](https://www.meit.gov.in/writereaddata/files/National%20Manufacturing%20Policy%20(2011)%20(167%20KB).pdf)>.

<sup>14</sup> Ibid 4, para 1.1.0

<sup>15</sup> Ibid 7, para 1.21.

<sup>16</sup> Zakir Thomas, 'Overview of Changes to the Indian Copyright Law', 17 *Journal of Intellectual Property Rights* 324 (2012) <<http://nopr.niscpr.res.in/bitstream/123456789/14460/1/JIPR%2017%284%29%20324-334.pdf>>.

<sup>17</sup> Accession to the Madrid Protocol: India (WIPO, 2013) <[https://www.wipo.int/edocs/madrdocs/en/2013/madrid\\_2013\\_14.pdf](https://www.wipo.int/edocs/madrdocs/en/2013/madrid_2013_14.pdf)>.

and GVC integration, under the umbrella project 'Make in India'. Within a year, the government had already began measures such as operationalising the Madrid Protocol, recruiting more patent and trademark examiners, and modernising the Indian IP office through greater digitisation<sup>18</sup>. Crucially, the government also attempted to move beyond incremental reforms. To this end, the government's NITI Aayog department instituted an Expert Committee on Innovation and Entrepreneurship. The Expert Committee was tasked with recommending steps to boost innovation and entrepreneurship in India, and comprised 15 representatives from government, academia and industry. Separately, the Ministry of Commerce and Industry instituted a six-member National IPR Think Tank, to draft a National IPR Policy<sup>19</sup>.

The report of the Expert Committee, published in 2015, observed that strengthening India's IP regime was 'the need of the hour' to boost innovation and entrepreneurship in India, and thus advised 'putting more emphasis on a stringent intellectual property rights regime.'<sup>20</sup>

In this context, the report stated: 'India's intellectual property regime is weak, and a deterrent to innovation.'<sup>21</sup> Significantly, the report added that this shortcoming was 'largely driven by weak enforcement of intellectual property rights rather than the laws themselves.'<sup>22</sup> The report asserted that while India's IP regime was TRIPS-compliant, 'the laws are poorly enforced' and 'not prioritised adequately by enforcement officials'.<sup>23</sup> Additionally, the report criticised the low numbers and slow pace of patent grants in India<sup>24</sup>. The report further criticised what it viewed as 'a cultural scepticism of intellectual property rights in India'<sup>25</sup>. The report ultimately made four clear recommendations: sensitisation and training of judges and police officials; the institution of dedicated IP courts bound to deliver judgments in 2 years, with limited adjournments; the creation of a National Virtual IP Platform to offer a suite of solutions to rightsholders; and a ten-fold increase in the number of patent examiners<sup>26</sup>.

Subsequently, the final version of the National IPR Policy, published in 2016, emphasised seven objectives surrounding the development of IP in India: IP awareness; IP generation; reform of IP law and legislation; reform of IP administration and management; greater IP commercialisation; better IP enforcement and adjudication; and human capital development<sup>27</sup>. Some notable recommendations made in the Policy included increasing the IP output of national research laboratories and universities<sup>28</sup>; the promotion of licensing and technology transfer<sup>29</sup>; the utilisation of the Technology Acquisition and Development Fund (TDAF) (conceived of in 2011) to provide support to domestic enterprises looking to procure patented technologies;<sup>30</sup> the modernisation and upgradation of IP Offices in Delhi, Mumbai, Chennai, Kolkata and Ahmedabad, as well as cooperation with IP Offices of other countries in areas like training and capacity building;<sup>31</sup> the expedited examination of patent appl-

<sup>18</sup> Intellectual Property Initiatives to Drive "Make in India" (Ministry of Commerce & Industry, Government of India, 2015) <<https://pib.gov.in/newsite/printrelease.aspx?relid=123202>>.

<sup>19</sup> The members of the National IPR Think Tank were Justice (Retd) Prabha Sridevan (Chairperson); Pratibha M Singh, then Senior Advocate (now Judge of the Delhi High Court); Punita Bhargava, Advocate; Unnat Pandit, then IP head of Cadila Pharmaceuticals; Rajeev Srinivasan, Director, Asian School of Business, Thiruvananthapuram; and Narendra K. Sabarwal (Convenor). Retired Deputy Director General, WIPO.

<sup>20</sup> Report of the Expert Committee on Innovation and Entrepreneurship 11-12, 16 (NITI Aayog, Government of India, 2015) <<https://smartnet.niua.org/sites/default/files/resources/report-of-the-expert-committee.pdf>>.

<sup>21</sup> *ibid* 22

<sup>22</sup> *ibid* 22

<sup>23</sup> *ibid* 35

<sup>24</sup> *ibid* 22

<sup>25</sup> *ibid* 16

<sup>26</sup> *ibid* 35

<sup>27</sup> National Intellectual Property Rights Policy (Ministry of Commerce & Industry, Government of India, 2016) <[https://www.meity.gov.in/writereaddata/files/National\\_IPR\\_Policy.pdf](https://www.meity.gov.in/writereaddata/files/National_IPR_Policy.pdf)>.

<sup>28</sup> *ibid* 7, para 2.4.

<sup>29</sup> *ibid* 15, para 5.2.

<sup>30</sup> *ibid* 15, para 5.11.5.

<sup>31</sup> *ibid* 11-13.



ications in India;<sup>32</sup> trade secrets protection;<sup>33</sup> clarity, simplification, streamlining, transparency and time bound processes in administration and enforcement of IP rights;<sup>34</sup> the shifting of copyright administration from the Department of Education to the Department of Industrial Policy and Promotion (DIPP) (since renamed to the Department for Promotion of Industry and Internal Trade (DPIIT));<sup>35</sup> the strengthening of IP enforcement through enhanced cooperation between different agencies, and the use of technology-based solutions to curb digital piracy;<sup>36</sup> the adjudication of IP disputes through commercial courts;<sup>37</sup> the accession to treaties 'which are in India's interest' or have been 'de facto implemented';<sup>38</sup> and the creation of a Cell for IPR Promotion of Management (CIPAM) to facilitate the promotion, creation and commercialisation of IP.<sup>39</sup>

The above recommendations evidently aspired towards a set of results that were readily measurable, and another set of results that would require more detailed, long-term assessment. For example, in the months and years following the publication of the National IPR Policy, copyright administration was indeed shifted to the DIPP, India acceded to the WCT and WPPT, the CIPAM was created, the TDAF was operationalised, and the infrastructure of IP offices were upgraded. In contrast, there are no detailed studies to show if levels of R&D, technology transfer and licensing have since risen in quantity and quality, or if the training and sensitisation of judges, police officials and IP office staff have made a significant difference in the experiences of rightsholders.

By some metrics, the innovation and IP ecosystem in India has improved. The latest WIPO statistics on international patent filing show that India has now climbed to sixth place in the world's list of top patent filers, ahead of more advanced economies like Germany, the UK and France<sup>40</sup>. India has also improved its rank in the WIPO Global Innovation Index to 40 (from 81 in 2015), with strong sub-ranks in categories like domestic market scale in purchasing power parity (PPP) (1), ICT services exports (1), venture capital received (6), finance for start-ups and scale (8), cultural and creative services exports (12), Entrepreneurship policies and culture (12), global corporate R&D investors (16), and graduates in science and engineering (11)<sup>41</sup>. The WIPO has accordingly observed that 'India's performance is above expectations for its level of development'<sup>42</sup>.

## Areas of Potential Reform in India's IP regime

A closer look at the WIPO Global Innovation Index provides insights on some persistent barriers. For example, the high sub-rank for graduates in science and engineering (11) contrasts with low sub-ranks for researchers per capita (82) and knowledge-intensive employment (86). This suggests that, from a qualitative perspective, India is neither adding significantly to its scientific workforce nor creating enough jobs for such a workforce. India also registers a very low score in tertiary inbound mobility (109), which may reflect on the attractiveness of India as a destination for researchers and research-centric organisations based overseas. Similarly, the high rank in ICT services exports (1) contrasts with a low rank in ICT access (99), likely suggesting a need for greater investments in ICT device manufacturing in India, so as to make such devices more affordable, and a concomitant increase in investment in ICT education and training. Finally, and significantly, India's score in regulatory quality is quite low (81). WIPO defines regulatory quality as 'perceptions of the ability of the government to formulate and implement

<sup>32</sup> *ibid* 12, para 4.14.

<sup>33</sup> *ibid* 10, para 3.8.4

<sup>34</sup> *ibid* 10, para 3.5

<sup>35</sup> *ibid* 11, para 4.1.

<sup>36</sup> *ibid* 17, para 6.8.1.

<sup>37</sup> *ibid* 17, para 6.10.1.

<sup>38</sup> *ibid* 10, para 3.2.

<sup>39</sup> *ibid* 11

<sup>40</sup> IP Facts and Figures (WIPO, November 2022) <<https://www.wipo.int/en/ipfactsandfigures/patents>>.

<sup>41</sup> Global Innovation Index 2022: India (WIPO, 2022) <[https://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_2000\\_2022/in.pdf](https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/in.pdf)>.

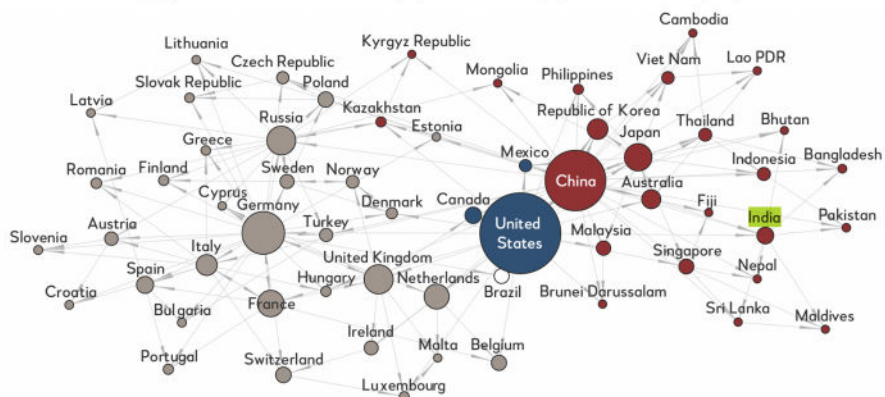
<sup>42</sup> *ibid* 2.



sound policies and regulations that permit and promote private-sector development.<sup>43</sup> WIPO's use of the expression 'formulate and implement' suggests that a holistic assessment of India's laws on innovation should not only include issues related to substantive legal provisions, but also their administration, enforcement and adjudication.

The above deficiencies are plausibly contributing to India's participation in GVCs remaining low. In a study, the Asian Infrastructure Investment Bank (AIIB) noted that India's share of world exports stands at merely around 2 percent; that India's share of GVC participation is around 7.4 percentage points below the average GVC participation rate for emerging economies; and that only 2 out of 35 sectors in India account for more than 5 percent of worldwide GVC exports (coke and petroleum, and renting of machinery)<sup>44</sup>. To illustrate this in a simple way, the graph below shows the supply chain hubs of GVCs, plotted as circles. It can clearly be seen that the circle representing India is much smaller than the circles representing China and Japan. The circle representing Singapore, whose population is a tiny fraction of India's and whose economy is mainly reliant on providing high-value services, is only slightly smaller than the circle representing India. Further, if we exclude India's two dominant sectors mentioned above (i.e. coke and petroleum, and renting of machinery) then the circle representing India will be much smaller.

*Supply hubs of GVCs in all sectors (reproduced from page 31 of the AIIB report)*



While the AIIB study focused only on India's infrastructural shortcomings, a study on the subject by the Observer Research Foundation (ORF), published in August 2022, brought out the additional impact of India's IP regime. The ORF study surveyed executives from 200 domestic and foreign companies in India, across six sectors, to understand their difficulties in scaling production and integrating into GVCs (the six sectors being aerospace and defence; automotive and auto-components; capital goods; electronic systems design and manufacturing (ESDM); new and renewable energy; and pharmaceuticals and medical devices). 46 percent of respondents identified (weak) IP protection as 'very much' a constraint in scaling up, 44 percent identified it as a 'moderate' constraint, and only 5 percent found it to be 'not at all' a constraint. Further, 55 percent of respondents cited IP protection as a 'very important' factor determining FDI inflows to India, 40 percent cited it as an 'important' factor, and only 6 percent felt that it was 'not important'.<sup>45</sup>

Although the ORF study did not elaborate on the exact reforms sought by domestic industry, the views of both domestic and international industry have been expressed in various reports. For example, the U.S. Chamber of

<sup>43</sup> Global Innovation Index 2022 234 (WIPO, 2022) <[https://www.google.co.in/books/edition/Global\\_Innovation\\_Index\\_2022/nOCEAAAQBAJ?hl=en&gbpv=0](https://www.google.co.in/books/edition/Global_Innovation_Index_2022/nOCEAAAQBAJ?hl=en&gbpv=0)>.

<sup>44</sup> Asian Infrastructure Finance 2021: Sustaining Global Value Chains (AIIB, 2021) 42-57 <[https://www.aiib.org/en/news-events/asian-infrastructure-finance/\\_common/pdf/AIIB-Asian-Infrastructure-Finance-2021.pdf](https://www.aiib.org/en/news-events/asian-infrastructure-finance/_common/pdf/AIIB-Asian-Infrastructure-Finance-2021.pdf)>.

<sup>45</sup> Terri Chapman, Jhanvi Tripathi, and Rakesh Kumar Sinha, Building Resilient Global Value Chain Linkages in India: Findings From an Enterprise Survey (Observer Research Foundation, 2022 <[https://www.orfonline.org/wp-content/uploads/2022/07/ORF\\_GVC-Survey-Report\\_August.pdf](https://www.orfonline.org/wp-content/uploads/2022/07/ORF_GVC-Survey-Report_August.pdf)>.

Commerce's Global Innovation Policy Centre (GIPC) has noted that India has enacted 'generally positive reforms' in recent years,<sup>46</sup> but still ranked India in the lower tier of countries with effective IP regimes, citing, among other reasons, the absence of a trade secrets law and the non-implementation of the National IPR Policy's recommendation in this regard;<sup>47</sup> low participation in certain international treaties (including the Hague Agreement Concerning the Registration of International Designs, the Budapest Convention on Cybercrime and post-TRIPS free trade agreements);<sup>48</sup> lengthy pre-grant patent opposition proceedings;<sup>49</sup> and certain pharmaceutical patent laws.<sup>50</sup> A submission by the International Intellectual Property Alliance (IIPA) has complained of inadequate enforcement of copyright laws in India and disconnect with global best practices (although it commended certain rulings of the Delhi High Court amidst the 'generally challenging' environment for rightsholders).<sup>51</sup> The U.S. Trade Representative (USTR), in its influential Special 301 Report, claimed, among other things, that rightsholders find it difficult to protect trade secrets in India; that 'levels of trademark counterfeiting continue to remain problematic'; that continued absence of any centralized IP enforcement agency, combined with a failure to coordinate actions on both the national and state level, threaten to undercut any progress made; and that copyright holders suffered from 'high levels of piracy, particularly online'.<sup>52</sup> The report was also critical of section 3(d) of the Patents Act, 1970.<sup>53</sup> As has been extensively documented, the provision limits the patentability of incremental improvements to certain inventions (which critics term 'evergreening') and has been a source of contention in the global pharmaceutical industry, particularly in light of the decision of the Supreme Court of India in the case of Novartis AG v. Union of India & Ors, (2013) 6 SCC 1. While the Supreme Court acknowledged that section 3(d) did not bar 'patent protection for all incremental inventions of chemical and pharmaceutical substances', several reports and articles suggest that rightsholders have been concerned with a subjective and inconsistent interpretation of the provision by patent examiners and controllers, in the absence of clearer guidelines.

The GIPC and USTR reports largely air the concerns of businesses outside of India. Thus, more significant perhaps is a contemporaneous report, released in July 2021, by the Department Related Parliamentary Standing Committee on Commerce (DRPSCC) of Rajya Sabha (Upper house of Parliament). The report reviewed India's IPR Regime following consultations with domestic stakeholders (among them, the DPIIT; the CII and FICCI; government departments dealing with pharmaceuticals and agriculture; and various mid-sized law firms). The DRPSCC Report provided specific recommendations encompassing different categories of IP emphasizing that India's IP regime should comply with 'International agreements, rules and norms' as well as be compatible with other nations and foreign entities. With respect to patents, the Committee opined that India's total patent filings were still quite low in relation to economies like the U.S. and China. The Committee criticised the 'microscopic spending' on R&D in India (a meagre 0.7 per cent of India's GDP) and called on the government to provide greater incentives for R&D activity, including in the private sector.<sup>54</sup> The Committee also sought further staff increases in the IP Office, along with expedited patent examination timelines.<sup>55</sup> The Committee further made important recommendations concerning substantive legal provisions. The Committee advised the amendment to section 3(b) of the Patents Act, 1970 (which bars the patentability of inventions on grounds of public order, morality, or prejudice to human, animal, plant life or health or to the environment) to prevent 'the arbitrary exercise of power' by Controllers of Patents in declining patents.<sup>56</sup> Conversely, the Committee favoured maintaining the status quo in relation to the section 3(d) of the Patents Act, 1970.

<sup>46</sup> International IP Index 2021 45 (GIPC, 2021) <[https://www.theglobalipcenter.com/wp-content/uploads/2021/03/GIPC\\_IPIndex2021\\_FullReport\\_v3.pdf](https://www.theglobalipcenter.com/wp-content/uploads/2021/03/GIPC_IPIndex2021_FullReport_v3.pdf)> 45.

<sup>47</sup> *ibid* 159.

<sup>48</sup> *ibid* 157.

<sup>49</sup> *ibid* 157.

<sup>50</sup> *ibid* 157.

<sup>51</sup> IIPA 2022 Special 301 Report on Copyright Protection and Enforcement 40 (IIPA, 2022) <<https://www.iipa.org/files/uploads/2022/01/2022-SPEC301-3.pdf>>.

<sup>52</sup> 2021 Special 301 Report 50-2 (US Trade Representative, 2022) <[https://ustr.gov/sites/default/files/files/reports/2021/2021%20Special%20301%20Report%20\(final\).pdf](https://ustr.gov/sites/default/files/files/reports/2021/2021%20Special%20301%20Report%20(final).pdf)>.

<sup>53</sup> *ibid*.

<sup>54</sup> Parliament of India, Department Related Parliamentary Standing Committee on Commerce, Report No. 161, Review of the Intellectual Property Rights Regime in India 12-13 (2021). <[https://rajyasabha.nic.in/rsnew/Committee\\_site/Committee\\_File/ReportFile/13/141/161\\_2021\\_7\\_15.pdf](https://rajyasabha.nic.in/rsnew/Committee_site/Committee_File/ReportFile/13/141/161_2021_7_15.pdf)>.

<sup>55</sup> *ibid* 27-29, 49.

<sup>56</sup> *ibid* 46.

The Committee affirmed its support for the Novartis decision and remarked that section 3(d) 'acted as a protector against any attempt of repetitive patenting or extending term of patents on spurious grounds', and was further both TRIPS-compliant and in keeping with India's commitments to promote public health.<sup>57</sup> The Committee, however, recommended that the government should clarify the scope of the provision to 'avert any misinterpretation of the provision'.<sup>58</sup> With respect to other IP rights, the Committee recommended that 'a separate statute or framework for trade secret protection in India' be enacted, pointing to the rise in digital crimes.<sup>59</sup> The Committee also recommended 'more stringent measures' to curb trademark counterfeiting and copyright piracy, and the enactment of a specific legislation in this regard.<sup>60</sup> The Committee also recommended strengthening IP cells in police forces at the state level, as well as the creation of a 'Central Coordination Body on IP Enforcement'.<sup>61</sup>

Finally, in August 2022, a working paper published by the Prime Minister's Economic Advisory Council (PMEAC), discussed the administrative aspects of the patents and trademarks ecosystem in India.<sup>62</sup> The paper noted the increase in patent filings in India, but also stated that 'India lags behind its global peers' and recommended an increase in staffing at the Indian Patent Office.<sup>63</sup> Apart from the shortage of manpower, the paper discussed certain other procedural issues in the patent application process including lack of fixed timelines for various steps such as pre-grant opposition. In addition, the paper also stated that there was 'a need for making various improvements in filing and IT systems, and outsourcing the administrative part of the process which can simplify and fasten the process'.<sup>64</sup>

Likewise, the paper expressed concern over the tremendous trademark opposition backlog and delay in disposal of trademark opposition cases in India and similarly recommended an increase in staffing.<sup>65</sup>

## Conclusion

In the policy discourse on GVCs in India, IP has often been discussed in very broad-based terms, some examples being the National Manufacturing Policy and the recent ORF study. More specific discussions on IP can be found in reports specifically addressing IP laws and policies, such as the National IPR Policy, the report of the DRPSCC and the working paper of the PMEAC. While the latter set of reports, conversely, do not specifically address the goal of greater GVC integration, the myriad recommendations made by them would clearly be a means to that end. Here, while there may be some divergence between the viewpoints of foreign and domestic industry — section 3(d) of the Patents Act, 1970 being one of the prime examples — the areas of convergence are arguably overwhelmingly larger. Thus, even if the Indian government was to start with diligently implementing positive recommendations made by the domestic policy reports, it would likely contribute towards significantly strengthening the IP regime in India. Some of these measures are listed below:

<sup>57</sup> Ibid 54-5.

<sup>58</sup> Ibid

<sup>59</sup> Ibid 81.

<sup>60</sup> Ibid 24-5.

<sup>61</sup> Ibid.

<sup>62</sup> Sanjeev Sanyal and Aakansha Arora, Why India needs to urgently invest in its patent ecosystem? (Prime Minister's Economic Advisory Council, EAC-PM/WP/1/2022) <[https://eacpm.gov.in/wp-content/uploads/2022/08/Why-India-needs-to-urgently-invest-in-its-IPR-ecosystem-16th-Aug-2022\\_Final.pdf](https://eacpm.gov.in/wp-content/uploads/2022/08/Why-India-needs-to-urgently-invest-in-its-IPR-ecosystem-16th-Aug-2022_Final.pdf)>.

<sup>63</sup> Ibid 2.

<sup>64</sup> Ibid 29.

<sup>65</sup> Ibid 3.

# Long-term measures:

## 1. Greater promotion of R&D:

Unquestionably, the Indian government needs to increase budgetary resources to increase the quality of R&D in India. Universities and research institutions should be incentivised to create patentable, commercially viable inventions. An overarching framework on government funded inventions in India and the ownership of IP in them should be framed. Collaborations with international scientific researchers, institutions and private sector entities should also be promoted. In the long-term, this will have a significant bearing on India's economic productivity and GVC integration.

## 2. Central Coordination Body on IPR Enforcement:

It is vital, especially in the context of copyrights and trademarks, that India's substantive laws be accompanied by a commitment to strong and effective enforcement. At present, the task of criminal enforcement is entrusted to police departments in various states. Establishment of a national central body coordinating with state-level enforcement units is the need of the hour. A centralised body can direct rights owners to the appropriate police department/office. Apart from police assistance, rights owners also face challenges involving website blocking, importation of counterfeit and pirated goods, and cross-border infringement. These tasks require assistance from central government departments and ministries, such as the Department of Telecommunications, the Ministry of Electronics and Information Technology, Customs authority the Ministry of Finance, and the Home Ministry. Thus, officials from these departments can be included in such a body. These measures will help rights owners and improve the overall IPR ecosystem which in turn will further promote ease of doing business.

## 3. Review and amendments of existing IPR laws:

A wide-ranging review of the existing IPR laws in India needs to be undertaken, and amendments proposed where the law is out of date. In particular, various complex issues pertaining to online IPR infringement need to be addressed.

## 4. Judicial reforms:

A major challenge confronting rights owners in India involves the slow pace of civil and criminal trials, especially the latter. Large-scale reforms are needed to address the problem, which require clearing case pendency, appointing more judges, instituting specialised IPR benches, sensitizing judges, and promoting arbitration where possible.

# Short and Medium-term measures:

## 1. Reforms at the IPR office:

An increase in patent and trademark examiners and controllers / registrars should lead to less waiting times and speedier processing for applicants. As a temporary measure, contractual appointments can be awarded to legal practitioners to fill vacancies. Alongside appointments, training and capacity building programmes for patent and trademark examiners and controllers / registrars, in partnership with counterpart IPR officers overseas, should be instituted. Such measures ought to help improve the overall innovation ecosystem in India.

## 2. Inter-ministerial committee on IPR enforcement:

As a precursor to a Centralised Coordination Body on IPR Enforcement, an inter-ministerial committee, comprising officials from relevant ministries, can be established to assist rights owners. Establishment of any such committee will not require legislation or infrastructural funding, and can thus be set up quite easily (though only as a temporary measure, pending the establishment of a Centralised Coordination Body).

## 3. Standalone Trade Secrets legislation:

An increase in patent and trademark examiners and controllers / registrars should lead to less waiting times and speedier processing for applicants. As a temporary measure, contractual appointments can be awarded to legal practitioners to fill vacancies. Alongside appointments, training and capacity building programmes for patent and trademark examiners and controllers / registrars, in partnership with counterpart IPR officers overseas, should be instituted. Such measures ought to help improve the overall innovation ecosystem in India.



# References

Gary Gereffi and Karina Fernandez-Stark, *Global Value Chain Analysis: A Primer 4* (2nd edn, Centre on Globalization, Governance & Competitiveness, Duke University, North Carolina, 2016) [https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/12488/2016-07-28\\_GVC%20Primer%202016\\_2nd%20edition.pdf](https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/12488/2016-07-28_GVC%20Primer%202016_2nd%20edition.pdf)

Mapping Global Value Chains 17-18 (OECD, 2012) [https://www.oecd.org/dac/aft/MappingGlobalValueChains\\_web\\_usb.pdf](https://www.oecd.org/dac/aft/MappingGlobalValueChains_web_usb.pdf)

Yuqing Xing, 'How the iPhone Widens the US Trade Deficit with China: the Case of the iPhone X' (GRIPS Discussion Paper No. 19-21, National Graduate Institute for Policy Studies, Tokyo, 2019) <https://ideas.repec.org/p/ngi/dpaper/19-21.html>

Enrico Nano and Victor Stolzenburg, 'The Role of Global Services Value Chains for Services-Led Development', in *Global Value Chain Development Report 2021: Beyond Production 105* (WTO and Asian Development Bank et al., 2022) [https://www.wto.org/english/res\\_e/booksp\\_e/00\\_gvc\\_dev\\_report\\_2021\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/00_gvc_dev_report_2021_e.pdf)

Yuqing Xing, David Dollar and Bo Meng, 'Trade in Intangible Assets along Global Value Chains and Intellectual Property Protection', in *Global Value Chain Development Report 2021: Beyond Production 44* (WTO and Asian Development Bank et al., 2022) [https://www.wto.org/english/res\\_e/booksp\\_e/00\\_gvc\\_dev\\_report\\_2021\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/00_gvc_dev_report_2021_e.pdf)

Elisabetta Gentile et al., 'Productivity Growth, Innovation, and Upgrading along Global Value Chains', in *Global Value Chain Development Report 2021: Beyond Production 75-6* (WTO and Asian Development Bank et al., 2022) [https://www.wto.org/english/res\\_e/booksp\\_e/00\\_gvc\\_dev\\_report\\_2021\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/00_gvc_dev_report_2021_e.pdf)

Saon Ray and Smita Miglani, 'India's GVC integration: An analysis of upgrading efforts and facilitation of lead firms', Working Paper No. 386, ICRIER (ICRIER, 2022) [https://icrier.org/pdf/Working\\_Paper\\_386.pdf](https://icrier.org/pdf/Working_Paper_386.pdf)

Trading for Development: In the Age of Global Value Chains 173 (World Bank Group 2020) <https://thedocs.worldbank.org/en/doc/124681548175938170-0050022019/original/WorldDevelopmentReport2020DraftReport.pdf>

ibid 173

ibid 173-4. See also Keith E Maskus and William Ridley, 'Trade Impacts of Intellectual-Property-Related PTAs: Evidence from Using the World Bank Deep Trade Agreements Database' (Policy Research Working Paper 9659, World Bank Group, 2021) <https://openknowledge.worldbank.org/handle/10986/35572>

Fiona Macmillan, 'What happens as technology travels on the global value chain?', *Afronomics Law* (12 November 2020) <https://www.afronomicslaw.org/2020/11/12/what-happens-as-technology-travels-on-the-global-value-chain>

Ray and Miglani, above n 9.

National Manufacturing Policy 3-4, para 1.6 (Ministry of Commerce & Industry, Government of India) [https://www.meit.gov.in/writereaddata/files/National%20Manufacturing%20Policy%20\(2011\)%20\(167%20KB\).pdf](https://www.meit.gov.in/writereaddata/files/National%20Manufacturing%20Policy%20(2011)%20(167%20KB).pdf)

ibid 4, para 1.1.0

ibid 7, para 1.21.

Zakir Thomas, 'Overview of Changes to the Indian Copyright Law', 17 *Journal of Intellectual Property Rights* 324 (2012) <http://nopr.niscpr.res.in/bitstream/123456789/14460/1/JIPR%2017%284%29%20324-334.pdf>

Accession to the Madrid Protocol: India (WIPO, 2013)

[https://www.wipo.int/edocs/madrdocs/en/2013/madrid\\_2013\\_14.pdf](https://www.wipo.int/edocs/madrdocs/en/2013/madrid_2013_14.pdf)

Intellectual Property Initiatives to Drive "Make in India" (Ministry of Commerce & Industry, Government of India, 2015) <https://pib.gov.in/newsite/printrelease.aspx?relid=123202>

The members of the National IPR Think Tank were Justice (Retd) Prabha Sridevan (Chairperson); Pratibha M Singh, then Senior Advocate (now Judge of the Delhi High Court); Punita Bhargava, Advocate; Unnat Pandit, then IP head of Cadila Pharmaceuticals; Rajeev Srinivasan, Director, Asian School of Business, Thiruvananthapuram; and Narendra K. Sabarwal (Convenor). Retired Deputy Director General, WIPO.

Report of the Expert Committee on Innovation and Entrepreneurship 11-12, 16 (NITI Aayog, Government of India, 2015) <https://smartnet.niua.org/sites/default/files/resources/report-of-the-expert-committee.pdf>

ibid 22, ibid 22, ibid 35, ibid 22, ibid 16, ibid 35

National Intellectual Property Rights Policy (Ministry of Commerce & Industry, Government of India, 2016)

[https://www.meity.gov.in/writereaddata/files/National\\_IPR\\_Policy.pdf](https://www.meity.gov.in/writereaddata/files/National_IPR_Policy.pdf)

ibid 7, para 2.4., ibid 15, para 5.2., ibid 15, para 5.11.5., ibid 11-13., ibid 12, para 4.14., ibid 10, para 3.8.4, ibid 10, para 3.5, ibid 11, para 4.1., ibid 17, para 6.8.1., ibid 17, para 6.10.1., ibid 10, para 3.2., ibid 11, ibid 159., ibid 157, ibid 157, ibid 157, ibid 27-29, 49., ibid 46., ibid 54-5., ibid 2., ibid, ibid 81., ibid 24-5., ibid., ibid 2., ibid 29., ibid 3.

IP Facts and Figures (WIPO, November 2022) <https://www.wipo.int/en/ipfactsandfigures/patents>

Global Innovation Index 2022: India (WIPO, 2022)

[https://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_2000\\_2022/in.pdf](https://www.wipo.int/edocs/pubdocs/en/wipo_pub_2000_2022/in.pdf)

Global Innovation Index 2022 234 (WIPO, 2022) <

[https://www.google.co.in/books/edition/Global\\_Innovation\\_Index\\_2022/nNocEAAQBAJ?hl=en&gbpv=0](https://www.google.co.in/books/edition/Global_Innovation_Index_2022/nNocEAAQBAJ?hl=en&gbpv=0)

Asian Infrastructure Finance 2021: Sustaining Global Value Chains (AIIB, 2021) 42-57

[https://www.aiib.org/en/news-events/asian-infrastructure-finance/\\_common/pdf/AIIB-Asian-Infrastructure-Finance-2021.pdf](https://www.aiib.org/en/news-events/asian-infrastructure-finance/_common/pdf/AIIB-Asian-Infrastructure-Finance-2021.pdf)

Terri Chapman, Jhanvi Tripathi, and Rakesh Kumar Sinha, Building Resilient Global Value Chain Linkages in India: Findings From an Enterprise Survey (Observer Research Foundation, 2022) [https://www.orfonline.org/wp-content/uploads/2022/07/ORF\\_GVC-Survey-Report\\_August.pdf](https://www.orfonline.org/wp-content/uploads/2022/07/ORF_GVC-Survey-Report_August.pdf)

International IP Index 2021 45 (GIPC, 2021) [https://www.theglobalipcenter.com/wp-content/uploads/2021/03/GIPC\\_IPIndex2021\\_FullReport\\_v3.pdf](https://www.theglobalipcenter.com/wp-content/uploads/2021/03/GIPC_IPIndex2021_FullReport_v3.pdf)

IIPA 2022 Special 301 Report on Copyright Protection and Enforcement 40 (IIPA, 2022)

<https://www.iipa.org/files/uploads/2022/01/2022-SPEC301-3.pdf>

2021 Special 301 Report 50-2 (US Trade Representative, 2022)

[https://ustr.gov/sites/default/files/files/reports/2021/2021%20Special%20301%20Report%20\(final\).pdf](https://ustr.gov/sites/default/files/files/reports/2021/2021%20Special%20301%20Report%20(final).pdf)

Parliament of India, Department Related Parliamentary Standing Committee on Commerce, Report No. 161, Review of the Intellectual Property Rights Regime in India 12-13 (2021).

[https://rajyasabha.nic.in/rsnew/Committee\\_site/Committee\\_File/ReportFile/13/141/161\\_2021\\_7\\_15.pdf](https://rajyasabha.nic.in/rsnew/Committee_site/Committee_File/ReportFile/13/141/161_2021_7_15.pdf)

Sanjeev Sanyal and Aakansha Arora, Why India needs to urgently invest in its patent ecosystem? (Prime

Minister's Economic Advisory Council, EAC-PM/WP/1/2022) [https://eacpm.gov.in/wp-content/uploads/2022/08/Why-India-needs-to-urgently-invest-in-its-IPR-ecosystem-16th-Aug-2022\\_Final.pdf](https://eacpm.gov.in/wp-content/uploads/2022/08/Why-India-needs-to-urgently-invest-in-its-IPR-ecosystem-16th-Aug-2022_Final.pdf)