From Aversion to Affinity: India's Standpoint in the Trade-Related

Aspects of Intellectual Property Rights Negotiations

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When the issue of protecting IPRs was brought to the GATT in 1986, India claimed it as unnecessary given the costly administrative affairs in domesticating the agreement and the difference in countries' levels of development. However, the standpoint of India altered significantly in the Doha Round. India did not only agree to adopt the TRIPS Agreement but also proposed the protection of broader aspects of IPRs, to also include GRTKF. The adoption of these significantly different viewpoints poses the puzzle that this article seeks to explain. In doing so, this article uses twolevel game theory by Robert D. Putnam to analyzes both domestic and international pressures that simultaneously pushed India to alter its position on IPR protection at WTO. It analyzes the actions taken by governmental actors, NGOs, and business groups at both domestic and international levels. The findings demonstrate that India adopted different standpoints because of domestic demands, precisely those of the pharmaceutical companies and pro-indigenous-people NGOs, while different set of actors, especially developing countries, at international level also supported it. The supports from these actors exceeded the pressures from big pharmaceutical companies from developed countries and the developed countries themselves. By arguing this, this article thus suggests that India, as a developing country, has been able to advocate the demand of domestic interests in the face of massive international pressures.

Keywords: business; government; GRTKF; NGOs; TRIPS

Introduction

To accommodate the interests of their business sectors, developed countries, predominantly the US, brought the issue of protecting intellectual property rights (IPRs) to the Uruguay Round of the General Agreement on Tariffs and Trade (GATT). The Trade-Related Aspects of Intellectual Property Rights (TRIPS) negotiation was controversial, as it represented the structural asymmetry between developed countries that produce most innovations and developing countries that largely are importers of those innovations (Shadlen, 2004, p. 78). Developing countries led by India, Brazil, and to some extent Argentina, opposed this agreement due to the costly administrative affairs and philosophical aspects in implementing the regulations. Although Brazil and Argentina finally followed the US positions after some pressures being imposed, India consistently resisted IPR protection during the Uruguay Round. Similarly, in the beginning of the 2001 ministerial representatives of the World Trade Organization (WTO) at Doha, India also led to minimize IPR protection by arguing that the TRIPS Agreement should be interpreted and adopted in a manner supportive of public health and easy access to medicines for the citizens of all WTO member countries. Marking the victory of India's leadership, the Doha Declaration on TRIPS Agreement and Public Health was produced. This highlighted the freedom of granting compulsory licenses and determining the criterion upon which such licenses were granted to all WTO members.

While the Doha Declaration on TRIPS Public Agreement and Health mostly addressed public health-related matters, it also communicated the need to protect Traditional Knowledge (TK), folklore, and other new developments on this issue (Andersen, 2010, p. 155). Such protection was to be made by disclosing genetic resources, traditional knowledge, and folklore or traditional cultural expression (GRTKF) to the granted patents, and not by patenting the GRTKF itself. All GRTKF elements, which were developed and adapted from the experience of local culture and environment throughout centuries, were in danger of misappropriation in innovation. For instance, many traditional and folk medicines had been used in the production of new medicines by big companies. Unfortunately, these companies often failed to provide incentives to the indigenous people who had preserved the use of knowledge throughout different generations.

India, as a leading actor in the production of the Declaration, expected to protect GRTKF during the Doha Round. The GRTKF protection within TRIPS has been an on-going demand by developing countries, which is still negotiated in the WTO, even when the WTO has declared the death of Doha Round in 2015. Similarly,

the World Intellectual Property Organization (WIPO) also has on-going negotiations on this issue and India is a party and one of the leaders in the negotiation to advocate GRTKF protection, although member countries are finding themselves at an unexpected impasse. On the other hand, the United Nations' Convention on Biological Diversity (CBD), with its aim of protecting local culture and environment, has already regulated GRTKF protection. As a party to the CBD, India was required to implement in its domestic constituency the protection of GRTKF-and so it did with the enactment of the Indian Biological Diversity Act 2002. In the WTO, India has insisted that the TRIPS Agreement should be held in line with provisions included in the CBD which preserve indigenous knowledge from piracy and thus TRIPS should include the protection of this new collection of intellectual property (IP). Again, India, in the vanguard, with Brazil, has led a group of developing countries to oppose developed countries whose domestic firms will be ill-fated if the institutionalization of GRTKF protection under TRIPS occurs.

India's decision to allocate massive support towards GRTKF disclosure implies that there is a shift from its previous position. At the Uruguay Round, India, with its strong determination, was averse to IPR protection although it took only itself to do so. A contrast circumstance was apparent when India started to have affinity in the protection of broader aspects of IPRs in the TRIPS negotiation at Doha Round and beyond, to also advocate the protection of GRTKF, which notably is a set of new elements in IPRs.

This article aims to understand this

phenomenon using the two-level game theory (Putnam, 1988, p. 433-452). The theory helps us understand how domestic and international pressures synchronously caused India's shifting position towards broader IPR protection. It elaborates that there are Level I and Level II in the process of 'ratifying' an international agreement. Level I is about bargaining between negotiators in the international arena where there were Indian and foreign governments, Non-Governmental Organizations (NGOs) with their valuable insights that promoted the interest of the public domain, and business sectors that heavily allocated funding for groups like think-tanks to advise the negotiating issues at the WTO. At Level II, there were separating domestic discussions between constituents within the represented area of each of the international negotiators. This part of the theory helps to select government, NGOs, and business groups as the domestic 'constituents' that were continuously involved in the IPRrelated policymaking process in India. The significance of both levels led the negotiators not only to focus on bargaining at the international level but also to take into full consideration the interests of domestic constituents, which had been negotiated at Level II.

This article is written as follows: the following part will discuss India's aversion to IPRs protection, which mostly occurred before the Doha Round. The next part assesses the country's willingness to protect even broader aspects of IPRs under the WTO. In each part, there will be a discussion on both domestic and international levels, analyzing how different actors at both levels have influenced India's standpoint. The last part is the conclusion, to understand the conditions at which level that have more influence toward India's shifting viewpoints on IPRs protection.

An Aversion to the Monopoly over Invention Domestic Level

Despite bilateral and multilateral trade pressures to implement TRIPS Agreement, India did not amend its Patents Act 1970, which was deemed containing weak IPR protection, between 1994-1998, due to reasons explained later in this subsection. It even risked being isolated in the TRIPS negotiations for this stance. The anathema continued even after 2005, which was the deadline set for India to fully accommodate TRIPS, marked by its attempts to always apply TRIPS flexibilities. At the domestic level, challenges from governments, NGOs, and business sectors explained as to why India strongly opposed IPR protection prior to the Doha Round.

Within the Indian bureaucracy, the challenges to IPR protection were apparent. In the parliament, the debate on whether or not to support IPR protection gained prominence during the process of the Patents Act 1970 amendment. The first bill proposed to amend India's existing regulation to comply with TRIPS was the 1994 Patents Ordinance. This failed because it was proposed by the President but was not approved by the parliament within six weeks. In India, the president may adopt an ordinance in the period of emergency, yet it has to be approved by the parliament in six weeks to be an act (Hardgrave & Kochanek, 2008, p. 84). This explained why the first bill failed.

To prove its commitment to the TRIPS council, the government further introduced Patents (Amendment) Bill to the parliament in 1995 but ended up in failure due to the dissolution of Lok Sabha—the Lower House of the parliament—in 1996 (Ganguli, 1999, p. 279). In 1998, another patent bill was introduced but failed to become an act due to strong resistance in Lok Sabha. Janata Dal, an Indian minority party that was in the forerun during the negotiation, argued that the bill provided low safeguards and insufficient implementation of TRIPS flexibilities (Winanti, 2011, p. 169).

During the negotiation on the Patents (Amendment) Ordinance 1999 in Lok Sabha, there were strong domestic resistances from the Revolutionary Socialist Party (RSP). This party claimed that the granting of Exclusive Marketing Rights (EMR), as included in the ordinance, was not in line with the Standing Committee on Commerce's recommendation because it signified an act of absolute surrender to the dictate of transnational corporations (Lok Sabha, 1999, p. 26). On the other hand, Bharatiya Janata Party (BJP), the ruling party at the time, saw the approval of the ordinance as necessary. It asserted that it was India's obligation as a WTO member to comply with WTO regulations and that supporting IPR protection signifies India's commitment in becoming the new world's leader in the knowledge-based drug industry (Winanti, 2011, p. 172). The Patents (First Amendment) Act 1999 was adopted, causing other parties that opposed the IPR protection like the Communist Party of India (Marxist) (CPI(M)) and Rashtriya Janata Dal (RJD) to walk out (Lok Sabha, 1999, p. 52). CPI(M) insisted that the TRIPS Agreement would prolong the oligopoly of Multinational Companies (MNCs) from imperialist nations on the land of India (Das, 2003, p. 26-27).

During the Patents (Third Amendment) Act 2005 negotiation, the Indian National Congress (INC), another party that supported the amendment, argued that it was now time for India to comply with TRIPS after enjoying the ten-year transition period (Winanti, 2011, 173). The debates on Patents (Third Amendment) Act 2005 were not as rowdy as the previous amendments since India was faced with the deadline at WTO to fully comply with TRIPS provisions.

In addition to debates in the bureaucracy, the nature of Indian policymaking also provided a room to challenge IPR protection. Although mostly initiated by the prime minister and the cabinet, it provided freedom for domestic societal actors to participate through public hearings, consultations, and suggestions on the proposed bills (Winanti, 2011, p. 158).

National Working Group on Patent Laws (NWGPL) was one of the organisations although not formally constituted as an NGO, which consisted of government officials, senior members of the judiciary, academic experts (Matthews, n.d., p. 166), NGOs, and business associations, lobbied the Indian government to dispute IPR protection. In the late 1980s to mid-1990s, NWGPL collaborated with the Indian parliament by establishing the Forum of Parliamentarians on Intellectual Property and WTO Issues, and stood firmly against change on patent laws, resulting in the setback of patent bills in 1994-1995 (Ramanna, 2003, p. 5).

Furthermore, NWGPL constructed People's Commissions, which operated one after another, following the most recent issues relating to TRIPS negotiations and submitted suggestions to the Indian parliament. The first two Commissions functioned before Doha Round. The First Commission was formed in 1993 and made public hearings attended by academics, economists, scientists, journalists, lawyers, politicians, and grassroots activists (Matthews, n.d., p. 167). The hearings produced a report highlighting that the Indian Patents Act 1970 should not be rewritten only to allow patent protection for pharmaceutical products, because this could signify a violation of Article 21 of the Indian Constitution, which states, "No person shall be deprived of his life or personal liberty except according to procedure established by law" (Matthews, n.d., p. 164-167).

The Second Commission was convened in 1999, as a response to the US' decision to establish a panel in the WTO to file a complaint against India with regards to the protection of patents for pharmaceutical products (Matthews, n.d., p. 167-168). The US argued that India had failed to comply with TRIPS in Article 63 on transparency requirements, Article 70.8 on the mailbox system, and Article 70.9 on the Exclusive Marketing Rights (EMRs). Instead of mobilizing NGO protests against the US complaint, NWGPL submitted a report to the Indian parliament, during debates on Patents (First Amendment) Bill 1999, to reiterate India's rights to fully utilize the TRIPS Agreement flexibilities (Matthews, n.d., p. 172-173). The US bilateral pressures, which were powerful enough to undermine India's position in its international agendas, could have been significant enough to alter India's stance. The supports and intakes of

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knowledgeable organizations like NWGPL, however, replenished India's spirit to pursue its interests.

Other challenges to IPR protection also came from Vandana Shiva's Navdanya. Following the Dunkel Draft's introduction, as a compromise package of texts during the Uruguay Round that included the draft of the TRIPS Agreement, Navdanya co-organised a consultation workshop on Biodiversity, Farmers' Rights and IPRs in New Delhi, where a Charter of Farmers' Rights (CFR) was produced. The CFR emphasizes that farmers have a fundamental right to conserve, reproduce, and modify seed as well as plant material and this is safeguarded in the Indian Constitution (Matthews, n.d., p. 192-194). The Charter was later followed by a large ally of half a million Indian farmers, which revolted against the Dunkel Draft (Suns Online, 1993). In 1995, Shiva and the leader of a farmer's lobby in India filed a petition in the US Patent and Trademark Office pushing for a revocation of the patent granted to W.R. Grace which extracted an active ingredient in Neem tree (Ramanna, n.d.).

In addition to NWGPL and Navdanya, Gene Campaign also contributed to opposing IPR protection. In 1992-1993, Gene Campaign led two important campaigns against patenting organisms, which successfully exerted political pressures on the government to recognize Indian farmers' rights in intellectual property laws (Matthews, n.d., p. 191-192). In the wake of speculation that India was about to sign the 1991 version of the International Union for the Protection of New Varieties of Plants (UPOV), which did not contain the so-called farmers privileges, Gene Campaign led other NGOs to push the government to, instead, enshrine breeders' rights in sui generis legislation in India by producing a draft treaty as an alternative to UPOV-known as the Convention of Farmers and Breeders (CoFaB) (Dhar, 2002, p. 22). CoFaB contains Articles that recognize farmers' rights including by collecting farmers' fee from the breeders of new plant varieties (Matthews, n.d., p. 194). Although in the initial steps the government resisted this draft's incorporation into Indian legislation, this step could significantly raise people's awareness about some alternatives to UPOV (Matthews, n.d., p. 195). As a result, farmers' rights were finally incorporated into the Indian Protection of Plant Varieties and Farmers' Rights Act of 2001 (Matthews, n.d., p. 195).

Not only NGOs, the Indian business sphere also contributed in opposing IPR protection. This group was mostly averse to IPR, representing their engagement with generic drug production. The Indian Drug Manufacturers Association (IDMA) was an organization consisting of Indian domestic pharmaceutical firms that vehemently opposed patent protection. IDMA intensely opposed the Patents Act 1970 amendment, because it was this association in 1970 that strongly lobbied the government to enact a law that encouraged local production of drugs when India was still regulated by Patents and Design Act 1911 under the British rule (Ganesan, 2015, p. 217). As a prominent editor, Swaminathan Aiyar, wrote, "Parvinder Singh of Ranbaxy, Anji Reddy of Dr. Reddy's Laboratories and other pharmaceutical businesses in India claimed that their survival depended upon India's weak patent regime, which allowed them to reverse engineer drugs still on patents abroad" (Sinha, 2016, p. 139).

IDMA was held full power from the 1970s to 1990s. In the debates on an ordinance to amend the Patents Act 1970 in 1995, IDMA was victorious over the Organization of Pharmaceutical Producers of India (OPPI), a pharmaceutical business association that favored strong patent protection, because the former successfully held back the ordinance (Smith, 2000, p. 19). IDMA continued to vigorously oppose patent protection by influencing debates and negotiations in the Indian parliament on the issue of amending the nation's Patents Act 1970 to become compliant with TRIPS. Several means of achieving its goals included sending documents to parliamentarians and to the executive members of the government to influence their viewpoints. Prior to the Patents (Amendment) Act 1999 adoption, IDMA made two requests to the government. The first was to parliamentarians to convince the executive government for a Joint Parliamentary Committee (JPC) of both Houses, so the JPC could hear about different views and urge the executive government to postpone or even dilute the bill. The second was to the Minister of Commerce Murosali Maran, containing a similar proposal (Reddy, 2012).

Conversely, the opportunity providers for IPR protection in the business sector were India-based foreign MNCs, as the members of OPPI. Established in 1965, OPPI consisted of numerous foreign, research-based MNCs which supported patent protection to safeguard their discoveries. Although it consisted of resourceful MNCs, OPPI, prior to the Doha Round, was not as victorious as IDMA. Nevertheless. the association continued advocating the importance of implementing TRIPS-friendly legislations in India, especially for the future development of pharmaceutical businesses. As an interview respondent put it, "OPPI spearheaded the movement toward strong IPR laws in India. We made presentations to government ministers, provided evidence of its benefits, and created awareness among key government decision-makers" (Papaioannou et al., 2015, p. 73).

Although OPPI actively pressured the government, Indian standpoint in the TRIPS negotiation barely represented its views. Instead, what was tabled by IDMA, and other domestic groups that opposed IPR protection, became the foundation upon which India stood up in TRIPS negotiations. Referring to the two-level game theory, negotiations between domestic constituents needed not to be democratic. This did not imply that OPPI's aspirations did not count. It just depicted that the viewpoints of domestic constituents were decreased to some common denominators (i.e. IDMA), best suited to India's national interests.

International Level

At international level, challenges from the government of other nations, foreign NGOs, and foreign businesses also overpassed the opportunities available for safeguarding IPRs. The challenges to IPR protection came from NGOs while developing countries, which had previously insisted on opposing the IPRs protection, finally adapted to it due to several offers and pressures from developed countries

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(Winanti, 2011, pp. 61-62).

The prominent supports at international level undoubtedly came from the South. A group of developing and least developed countries submitted a draft proposal in a TRIPS negotiation. They included Argentina, Brazil, Cuba Egypt, India, and Nigeria (Tarragô, 2015, p. 244). Their viewpoints could be summarised into: 1) the role of GATT must be limited to the goods sector; 2) the institutionalisation of IPR protection under TRIPS would harm their freedom of implementing policies best suited to their economic and social development; and 3) IPR protection, from a more practical point of view, would only cause loses rather than gains for developing countries (Ganesan, 2015, p. 213).

India. leading other developing countries, insisted that the GATT's focus area needed to be trade-related thus the negotiations should be limited to restrictive, anti-competitive practices by IPR owners. Other features like the range and duration of IPR protection should be left to individual nations (Winanti, 2011, p. 59). This group also claimed that GATT member countries had different development levels and specific domestic conditions. In the Uruguay Round, a communication was submitted by Argentina and other developing countries, pushing to consider the development, technological, and public interest objectives of developing countries in the IPR protection era (GATT, 1990, p. 6). These countries also realised that IPR protection would only benefit the North where most of the world's inventions come from, while only obstruct the South, which are the inventions' consumers. Data in 1988, for instance, showed that developed countries accounted for 88 per cent of world exports of pharmaceutical products, while developing countries only accounted for 7 per cent in the same year (Pugatch, 2004, p. 82). Unsurprisingly, the developing countries group, led by India and Brazil, although altered their positions later as explained in the following part, had actively opposed IPR protection.

These developing countries, however, received massive pressures from developed countries especially the US. Before India finally adopted its Patents Act 1970, the US had pressured India by implementing its domestic legislation. It began in May 1989, when India was classified as 'Priority Watch List,' followed by being put in the 'Priority Foreign Country' list due to its leadership in opposing IPR protection (Chaudhuri, 1993, p. 1864). More pressures were enforced in April 1992 when the US President put off the duty-free benefits to imports of chemical and pharmaceutical products from India, which was costing Indian exports as much as \$60 million-owing to the fact that India had failed to protect the American IPRs (Chaudhuri, 1993, p. 1864). In the following year, the US intended to set up further sanctions for India yet it was cancelled as India finally accepted the Dunkel Draft that contained the TRIPS Agreement (Chaudhuri, 1993, p. 1864). All these pressures significantly led India to finally sign TRIPS Agreement. The US pressures continued even after India signed the TRIPS Agreement. The US requested the WTO DSB in 1996 to establish a panel for India's breaching of Article 63, 70.8, and 70.9 of the TRIPS Agreement.

Besides pressures from developed countries, developing countries also put another

burden to India at the end. This condition occurred when in 1989, most of Indian allies grudgingly accepted TRIPS draft in face of developed countries' offers for negotiations on broader market access for these developing countries' agriculture and textile products. This condition led India to be isolated in the negotiation, as it was the only blatant country left to keep resisting IPR protection, and therefore threatened its consistency in opposing to safeguard IPR.

Despite massive opportunities for IPR protection in the foreign-level governmental sector, huge pressures were advocated by NGOs. Due to IPR protection's negative impacts on human beings, these NGOs worked to raise people's awareness and push governments to consider the livelihood of the people that were negatively impacted by the TRIPS Agreement. NGOs such as Medicines Sans Frontières (MSF), Oxfam, Voluntary Service Overseas, and Action Aid, working with Treatment Action Campaign in South Africa and the AIDS Access Coalition in Thailand mutually worked to resist IPR protection (Matthews, n.d., p. 2). These groups argued that, while IPRs could stimulate innovation, investment in Research and Development (R&D), and diffusion of knowledge, it could on the other hand create numerous negative impacts, such as development hindrance in developing and least developed countries if a balance between safeguarding public domain for the benefits of the public and rewarding innovators can hardly be pursued (Matthews, n.d., p. 2).

The NGOs adopted many strategies to pursue their goals of opposing IPR protection. Firstly, they conducted workshops and conferences. In 1999, a high-profile meeting was held between 60 public health consumer NGOs, government representatives, and companies' pharmaceutical spokespersons from around the world as well as the WTO and World Health Organisation (WHO) (Murphy, 2010, p. 109). This meeting pressured the US to stop sanctioning developing and least developed nations for their weak patent protection (Murphy, 2010, p. 109). Secondly, they worked through alternative international policy arenas. NGOs like the MSF brought the issues of affordable access to medicines, the AIDS/HIV crisis, and the TRIPS implementation to the 1998 meeting of the WHO's World Health Assembly (WHA) (Murphy, 2010, p. 110). These issues contributed to the production of the Revised Drug Strategy (Resolution WHA52.19) to invite governments of the WHO members to maintain access to medicines during any international agreements' domestication (Murphy, 2010, p. 110).

To date, there has been no data presenting NGOs that were in the same line with foreign MNCs that demanded for strong IPR protection during Doha Round. As previously mentioned, NGOs existed to safeguard public domain, while the TRIPS Agreement was seen to harm the public. These NGOs purely put efforts to safeguard public health because they insisted that IPR protection jeopardised public health, especially in developing and least developed countries.

In the business sector, challenges to the TRIPS Agreement derived from generic drug manufacturers in developing countries like Brazil and Thailand, while strong pressures for the protection of IPR came out from big pharmaceutical industry in developed countries. Companies like Brazil's Laboratorio Cristalia and Thailand's Siam Pharmaceutical were just two out of many companies that ran counter to TRIPS Agreement because they would be unable to reverse engineer drugs during the patent protection era. At international level, however, there was no visible cooperation between these generic drug companies from developing countries to prevent the TRIPS Agreement's adoption.

On the other hand, pressures put forward by big pharmaceutical industry from developed countries were too visible. The North governments simply could not resist accommodating their pharmaceutical firms' interests as they strongly depend on this industry. The Indian Institute of Mass Communication professor, Amit Sen Gupta, noted that private profits were put ahead of social benefits because of the North's economic dependence on industries that required strong IPRs protection-and robust implementation of the TRIPS Agreement (Gupta, 2004, p. 1). Besides, the North's insistence on protecting IPRs was also fuelled by the pharmaceutical companies' investment in politicians. This is proven by the "Pharma Cash to Congress" database, which tracks big pharmaceutical companies' contribution to each US bureaucrat's campaigns. For instance, tens of pharmaceutical companies have funded Steny Hoyer, a bureaucrat from Democratic Party in the Hosue of Representatives, for \$1,025,250 in his campaigns from 2007 to 2018 (Lucas and Lupkin, 2018). This is because patents have been ranked as top issues for big pharmaceutical companies in countries like the US. Therefore, the companies have been steadily increasing

their spending to influence legislations in countries like the US (Ludwig, 2015).

The big pharmaceutical companies did not only push their governments to safeguard IPR protection through international organisation, but also lobbied the governments to put bilateral pressures on countries that breached IPR protection. As a US media reported, the pharmaceutical companies had aggressively lobbied the government to pressurise India toward strong patent legislations, noting that India had been the country with loose IPR protection (Ludwig, 2015). In South Africa, pharmaceutical companies even filed lawsuit against the country's government for its Medicines Act that legalised compulsory license for HIV/AIDS treatment. Occurring in 1998, the lawsuit was filed by fourty-two companies, to the High Court of South Africa (Consumer Project on Technology, n.d.). Though it was later withdrawn due to massive pressures, this depicted how pharmaceutical industry has immensely influenced IPR protection through the TRIPS accord's establishment.

An Affinity to the Protection of GRTKF

Domestic Level

The Doha Declaration of TRIPS Agreement and Public Health, an integral part of the Doha Round launched on November 14, 2001, addressed concerns not only on public health but also on TRIPS-CBD relations, TK and folklore protection, and other relevant developments proposed by the members (Andersen, 2010, p. 155). Through numerous proposals to the TRIPS Council, developing countries argued that TRIPS should be amended to include the requirement of country of origin's disclosure, prior-informed consents, and benefit sharing for GRTKF usage. India, more enthusiastically, claimed that there is a need to go beyond a defensive protection, to a positive protection of TK—or more famously known as the sui generis system to regulate TK protection through national laws (WTO, n.d.). These proposals signified a turning point for India, which started promoting broader aspects of IPR protection.

Within the Indian bureaucracy, the political actors highly support GRTKF protection. To protect its biodiversity, India adopted the Protection of Plant Varieties and Farmers' Rights Act 2001, the Biological Diversity Act 2002, and the Patents (Amendment) Act 2005 (Venkataraman & Latha, 2008, p. 331). Within the individual negotiation of these Acts, there have been no notable challenges toward protecting broader aspect of IPRs that encompasses GRTKF.

In light with pressures from NGOs focusing on protecting seed varieties as invention from the private sectors, the Indian government was to introduce a bill to protect plant varieties against their misuse. These pressures, however faced other protests from India's domestic groups that were alarmed by farmers' lives if they were to be prohibited from reusing, exchanging, and selling their seeds as they had already done on a daily basis. This made the Ministry of Agriculture to draft a bill in 1994 to allow farmers to save, use, exchange, share, and sell seed as well as to require breeder to pay reward to communities (Ramanna, 2003b, p. 11). Although the draft was not introduced to the parliament, the Indian government showed its consistency to prioritise its communities' interests above those of others despite pressures from pro-plant breeder organisations. The similar draft was reproduced in 1996 but, again, it was not introduced to the parliament (Ramanna, 2003b, p. 12).

The first draft introduced to the parliament was the third draft in 1997. The highlight of this draft was an addition of the words "Farmers' Rights" in the title, labelling the draft as "Plant Variety Protection and Farmers' Rights Bill" (PVPFR) (Ramanna, 2003b, 12). The later proposed drafts, in 1999 and 2000, were introduced to the parliament. At the end, a legislation was enacted, providing freedom for farmers while also accommodating the interests of business groups, by regulating that farmers may maximise the use of their seed, including selling it, but they cannot sell the seed under a brand name. At the same time, a plant variety's invention that is derived from any methods or genetic resources owned by farmers must provide benefit sharing to the owners.

Throughout the drafting of the Biological Diversity Act (BDA) 2002, one can also notice that the political actors in India provided no challenges towards GRTKF protection. The BDA differs from the PVPFR because the former mainly regulates the access to genetic resources by foreign companies, individuals, or organisations (Venkataraman & Latha, 2008, p. 332). The debates were about GRTKF commercialisation-whether to allow GRTKF's commercial use through access and benefit sharing and prior informed consents or not to allow it at all. Passing through debates and negotiations, the BDA was finally passed by Lok Sabha on December 2, 2002, by Rajya Sabha—the Upper House of the parliament later in that month, and came into force ever since.

The Patents (Amendment) Act 2005 enactment, similarly, explained how the Indian government had continuously supported broader aspects IP protection. Faced with the deadline on 1 January 2005 to fully comply with TRIPS provisions, the Indian president adopted a Presidential Decree (and hence considered as the Patents (Amendment) Ordinance) on 26 December 2004 for protection of patents for pharmaceuticals, foods, and agricultural chemicals products (Winanti, 2011, p. 172). The debates in the parliament were not as rowdy in the amendment processes, and this might be because India had no option but to comply with TRIPS.

Nevertheless, the Patents (Amendment) Act 2005 successfully incorporated a new feature with regards to GRTKF protection. Firstly, the Act defines a 'patent' as patent granted for an innovation and further provides definition for 'invention,' which must not be derived from traditional knowledge or aggregation, duplication, or known properties of traditionally known component(s) (Vankataraman & Latha, 2008, p. 336). This provision clearly protects TK from misuse by irresponsible patent applicants. Secondly, it also regulates that any person may oppose the Controller against patent right's granting that does not meet novelty, inventive step, and industrial applicability, or non-disclosure or wrong disclosure of GRTKF, before the patent right is granted (Vankataraman & Latha, 2008, p. 336).

More recognisably, the commitment to protect the knowledge of Indian indigenous people came from domestic NGOs. These NGOs, though similarly supported the protection of GRTKF, were divided into two categories: NGOs whose focus was on endorsing the negative impacts of IPRs protection on farmers and NGOs whose focus was on endorsing the extension of IPR to farmers (Ramanna, 2006, p. 46). The emergence of the latter type of NGOs signified a shift in the view of negative impact of patents on TK and could also contribute to explain India's shifting position.

NGOs that promoted Farmers' Rights include Navdanya and Gene Campaign. Navdanya, established by Vandana Shiva, focused on three activities: 1) conservation of biodiversity; 2) organic farming-based supports for farmers as producers 3) pursuing better negotiations for trade (Ramanna, 2006, p. 47). In 2001, Shiva wrote a book titled "Protect Understanding Intellectual Plunder? or Property Rights," where she demonstrated how patent protection had been done at the expense of indigenous people (Shiva, 2001, p. 50). Furthermore, Shiva also emphasised that patents were no longer granted only for machines, but also for past generations' knowledge, therefore the world needs IPR regime that is not restricted to the western system (Shiva, 2001, p. 3-50). There were three courses of action were proposed by Shiva to deal with this issue. The first (and ideal) go is to prohibit the granting of patents on all life forms, including plant and animal genetic resources. If not possible, the second pathway is to exclude patents from traditional knowledge and products derived from it. The last possibility, being the most feasible one, is to require the disclosure of biological source of origin, proof informed consent of TK holders, and equal benefit sharing (Kothari & Anuradha, 1999, p.

9).

Similarly, Gene Campaign founded by Suman Sahai has also commenced countless activities to promote GRTKF protection. When countries started introducing how TRIPS-CBD harmonisation needed to be achieved, Gene Campaign argued that CBD must be given primacy over TRIPS because the former is a developing country's friendly treaty while TRIPS is not (Gene Campaign, n.d.). Another Gene Campaign's notable accomplishment is its struggle against the granting of Basmati patent to RiceTec. At the time, Gene Campaign worked with the Indian Ministry of Commerce, Agriculture and the Agriculture Products Export Development Agency (APEDA), and Navdanya to get the patent revoked (Gene Campaign, n.d.).

In addition to NGOs working to support GRTKF protection by promoting Farmers' Rights, there are also other NGOs like the Honey Bee Network which promote local innovations and document TK. Honey Bee Network signified a critical point in the shifting of preferences of NGOs in responding to IPRs protection. Unlike other NGOs, Honey Bee Network, starting in 2000, deemed IPR protection to cover GRTKF in the current IPRfriendly regime. The premises of the Honey Bee Network's activities were (1) People must be given credit for the knowledge they shared with the network; (2) Only after the inventor had given his or her prior informed consent could the knowledge be shared; (3) Inventors should not be required to learn English to actively participate in the network; and (4) Reasonable share of income should go back to the source of knowledge (Gupta, 2006, p.

51). Through countless activities, the Honey Bee Network protected domestically produced innovations. In the early years, the Honey Bee Network worked to lobby the government to establish National Innovation Foundation (NIF)-a state body aims to build upon grassroots green innovations and traditional knowledge important to generate employment and reduce poverty (Gupta, 2012, p. 36-37). After pushing policy makers to build NIF, the Honey Bee Network continued with its main task, which was to document Indian TK and every innovation taking place in the country, especially in rural areas. In the past decade, the Honey Bee Network helped the NIF to document 140,000 ideas, innovations, and TK from 545 districts in India (Gupta, 2012, p. 32).

Similar to NGOs, Indian domestic businesses put no significant challenges to safeguard GRTKF. When India had no option but to implement TRIPS Agreement, the Indian-originated pharmaceutical businesses started focusing on allocating more resources for R&D for drug discoveries. As stated by Ranbaxy, India's new patents regime "provided an incentive for organisations to be innovative and promises a plethora of opportunities for forward thinking organisations that believe in R&D" (Mueller, 2007, p. 540). With the 2005 patent law, Indian companies continued undertaking several measures to move forward. These included increased spending on R&D, more partnering with foreign pharmaceutical companies, balancing focus of global markets, and consolidation through mergers and acquisitions (M&A) (Jain, 2006, p. 237). For instance, R&D intensity of Dr. Reddy's Laboratories reached 18% in 2004-2005 and

that of Ranbaxy reached 20% in 2005-2006 from previously 16% (Joseph, 2011, p. 9).

Accordingly, companies, especially the first and second tier companies became less interested in pushing the government to create low-level IPR protection. The three biggest pharmaceutical companies in India, Ranbaxy, Cipla, and Dr. Reddy's Laboratories decided to shift their standpoints to stop opposing patent protection. By late 1990s, Ranbaxy joined OPPI (Sinha, 2016, p. 143). Similarly, in 1999, Cipla, Dr. Reddy's Laboratories, and seven other Indian big pharmaceutical companies formed a new organisation, known as Indian Pharmaceutical Association (IPA), with a more positive view on patent regime (Sinha, 2016, p. 143-144). This roughly marked the turning point for Indian pharmaceutical businesses as they were moving toward accepting patent protection on drugs.

In regard to stronger IPR protection to also include GRTKF, data showed that to date, there were no challenges from the business sector. If sometime in the future it is found out that the Indian business groups find their interests competing to that of the indigenous people, then they would need to turn into investing on R&D, in the current era that accommodates strong IPRs protection. By massively investing on R&D, their focus of doing business should be on discovering new drugs instead of copying existing drugs or even making use of the existing knowledge owned by their nation's indigenous people.

International Level

Similar to the previous period where India was supported by developing countries

to stance against IPR protection in the WTO, developing countries were also supporting India to institutionalize the extension of IPRs protection. Through submission to the TRIPS Council in 1999 (IP/C/W/161), India highlighted the need to exclude patents based on TK or at least requires disclosure of the country of origin, prior informed consent, and benefit-sharing (Indian Department of Commerce, 1999). The developing and least developed countries also submitted similar proposals to the WTO in the meetings that followed. In 2002, Brazil and India led a group of eleven developing countries on a submission to the TRIPS Council about the necessity to amend the TRIPS Agreement to prevent it from running counter to CBD (WTO, 2002, p. 1). Two years later, Brazil, supported by India, forged the coalition of the Friends of Development for an amendment to TRIPS accord which would focus on a 'disclosure requirement' for the use of biological and associated knowledge resources (Eimer, 2013, p. 36). More recently, the African groups also joined this coalition, bringing the number of WTO members co-sponsoring the proposal (IP/C/W/474) to be 60 (Wager, 2008, p. 221). These support provided opportunities for India to be vociferous in facing the powerful developed countries in TRIPS negotiations. Since one of the reasons why India failed to insist against the inclusion of IPR protection in the WTO during the Uruguay Round was because of its isolation.

In addition to the support from developing countries, India's moves were also 'imitated' by the European Commission, and its member countries like Norway and Switzerland. Through a means of communication in the TRIPS Council at the WTO, the Permanent Delegation of the European Commission expressed its readiness to disclose the country of origin, if known, or source of genetic resources and associated TK (Wager, 2008, p. 222). Similarly, with the same tone but different means of communication, Norway also expressed its willingness to disclose the source of origin of associated knowledge, if known (Wager, 2008, p. 221).

Though India received abundant support from other governments at the international level, the challenges proposed by developed countries, whose industry would be ill-fated with GRTKF protection, could not be avoided. As noted in 2008, the most vociferous opponents to the protection of this new aspect of IPRs were the US, Germany, UK, and France (Eimer, 2013, p. 2). The resistance, however, did not last long. Through various negotiations, the US and the UK, in 2009 and 2010 respectively, finally joined to protect the knowledge of indigenous people. This was marked by their signature on the Traditional Knowledge Digital Library (TKDL) Access Agreement, in an attempt to prevent the granting of patent rights that make use of TK recorded in the TKDL system (Ministry of Science and Technology of the Republic of India, 2011, p. 2). TKDL has been successful in identifying over 1000 patent applications that constitute some GRTKF elements (WTO, 2019, p. 8).

Adding to the support of foreign governments is the support coming from foreign NGOs, such as Third World Network (TWN), the Action Group on Erosion, Technology and Concentration (ETC—previously the Rural Advancement Foundation International or RAFI), and the Gaia Foundation. Major actions were undertaken by these NGOs to participate in international negotiations on GRTKF protection. RAFI, before altered to ETC, stressed upon bioprospecting issues. For instance, it put severe condemnation to International Cooperative Biodiversity Groups which was a bioprospecting project in developing countries, developed by some US governmental bodies-National Institute of Health, National Science Foundation, and the Agency for International Development (Dutfield, 2001, p. 235). When it became ETC in the 1990s, the organization continued addressing the socioeconomic and ecological issues surrounding new technologies that could produce impacts on the world's poorest and most vulnerable (Ulaner, 2008, p. 21). This period marked the beginning of the organization's consistency on the issue of extending IPRs protection to GRTKF.

The TWN was also pursuing the same pathway as ETC and RAFI. In 2001, TWN had a meeting in Montreal, discussing the protection of TK though it did not conclude the role of IPRs in the implementation of access and beneft-sharing on the use of GRTKF for patent granting (Ragnar, 2004, p. 40). However, due to global demands, another meeting was conceived where it concluded that IPRs focus on protecting private rights, which is contradicting to the nature of free knowledge sharing and holding from generation to generation in the world of indigenous peoples, thus TRIPS must be harmonized with CBD which has provisions that acknowledge this nature (Ragnar, 2004, p. 40-42).

In addition to the work of ETC and TWN, collaborative work from a range of

international NGOs provided rooms of support to India's standpoint of proposing GRTKF protection. Seeds of Freedom, produced in 2012, is a joint cooperation between The Gaia Foundation and the African Biodiversity Network which featured interviews with worldrenowned environmental activists including Vandana Shiva who commented about a story of how genetically modified cotton had caused Indian farmers to be indebted, how North American farmers had been sued for being contaminated with genetically modified pollen, and how farmers around the world had been made increasingly vulnerable to climate change (The Outpost, 2013). The launch of this film undoubtedly contributed to the raising of awareness of people at the global level, which put another pressure on those actors that opposed GRTKF protection.

At the international-level business sector, there were still companies that continued supporting strong IPR protection. However, this did not imply that they protected the inclusion of GRTKF as other aspects of IPR. They became pro-IPR protection, depicting it as a strong patent regime. According to Ernst & Young and the Economist, 62% of MNCs in India considered a threat to IPR protection as the most serious business risk (Linton & Corrado, 2007, p. 7). To hinder this risk, therefore, companies continued allocating a huge amount of funds to push their governments to pressurize developing countries. The production of generic drugs, which provides people with affordable but effective medicines is undoubtedly a threat to the business that discovers drugs and sells it at a higher price—while claiming that such a high price is to meet the need of investing in

R&D for development of the respective drugs or discovery of others. As such, it is unsurprising to have big pharmaceutical industries insisted on allocating funds to influence decisionmakers.

Not only lobbying to secure strong patent protection, on the other hand, the companies also lobby developed countries' governments to challenge the idea of GRTKF protection. In countries like the US, the UK, France, and Germany, intensive lobbying was pursued by domestic industries to oppose the protection of GRTKF (Eimer, 2013, p. 36). The Pacific Research Institute sensed that access and benefit-sharing regime on patent protection would lead to the reduction of investments in biotechnological and pharmaceutical R&D that could have ended human suffering, because it is a long-run tax on R&D (Wolfe & Zycher, 2005, p. 1). This implied that companies were persistent in opposing the protection of GRTKF under TRIPS, through many pathways, because the institutionalization of this new collection of IPRs protection would severely harm their businesses.

No Way Can India Neglect Its Domestic Interest: A Conclusion

Before integrating the reasoning from domestic and international levels, an alienated discussion on domestic as well as international pressures is needed. As the two-level game theory by Putnam expounds, there must be an analysis on both levels to understand a country's stance on certain issues in international negotiations.

At the domestic level, the negotiations between domestic constituents in India were

influenced by domestic groups' aspirations used to pressure the government to fulfill their demands. There were several NGOs aimed at protecting indigenous people and their GRTKF that contributed in shaping India's position in the TRIPS negotiations. More importantly was the emergence of pro-reform NGOs, which promoted the IPR system to protect India's GRTKF and its commercialization instead of resisting IPR protection. Previously, NGOs like Vandana Shiva's Navdanya and Suman Sahai's Gene Campaign had caught public attention through their aversion to biopiracy and bioprospecting. The turning point was in 2000 when NGOs like the Honey Bee Network and later supported by Shiva, emerged to extend IPRs protection to benefit Indian farmers and indigenous people by documenting thousands of their TK and inventions and supporting the protection of GRTKF under TRIPS.

Another contributing factor was the maturity of India's domestic pharmaceutical industry as seen by the establishment of IPA. Previously, one of the most vociferous groups to opposepatent protection was the pharmaceutical business, because IPR protection would require them to stop reverse engineering drugs. Of course, not all pharmaceutical businesses are now mature enough to compete with foreignbased companies in terms of drug discovery and innovation. However, as argued by Putnam, voting does not need to be democratic. In this sense, India does not have to encompass each aspiration of all domestic actors. Instead, the voting process can be reduced to some common denominators and in the case of Indian pharmaceutical companies, it is the first and second-tier companies that were already

developed. These companies had started allocating a huge portion of income for R&D as well as M&A to enhance their global presence as they realize that they could win the competition only if resources were being made available for R&D.

At international level, a supportive environment for the protection of GRTKF led India to maintain its standpoint although having to face challenges from external pharmaceutical companies. Concerning two-level games, India maximized its ability to satisfy domestic constituents in the TRIPS negotiations. In regard to GRTKF protection, it is clear that there were no significant challenges from domestic actors, who even demanded to support the GRTKF disclosure in IPR protection. Such domestic support strengthened India's standing to include GRTKF within the TRIPS Agreement in the WTO.

Unlike in the Uruguay Round, where developing and least developed countries left India isolated because of the offers and bilateral pressures from powerful countries like the US, this time India continued to be in the forerun to fight for GRTKF protection with several developing and least developed countries. Their cooperation put the issue of GRTKF protection at stake and attracted some developed countries, such as Norway and Switzerland, to follow their pathways. Other developed countries like the US and UK also showed a willingness to protect indigenous knowledge by making TKDL accessible to patent offices in the US and UK to prevent biopiracy in the granting of patent rights.

With strong support from developing countries and remarkable moves followed by developed countries toward GRTKF protection, India sensed only limited challenges from the big pharmaceutical industry. True that these businesses still allocated a huge portion of their profits to lobby the government to oppose GRTKF protection. However, the decisions of the US and the UK to sign the TKDL Access Agreement prove that India shall not imply these businesses' moves as a significant challenge, simply because they were not.

The 'ratification' of this shifting standpoint of India in TRIPS negotiations, according to the two-level game, must fall in domestic level win-sets. GRTKF protection falls in both levels' win-sets. Domestically, it was clear that there were no actors with significant challenges on the idea of protecting GRTKF. Similarly, at the international level, it was in the interests of developing and least developed countries to include GRTKF as new aspects of IPRs that needed to be protected under TRIPS, while developed countries had also shown supportive moves toward India's proposal of this new IPRs protection. The same positions were also followed not only by Indianbased NGOs but also international NGOs. Big pharmaceutical companies became the only clear opponents to the protection of GRTKF, while Indian domestic companies posed no challenges at all. Thus, opportunities to protect broader aspects of IPRs exceeded the challenges both at domestic and international levels.

This article wishing to fulfill its main task, has proven that India has the capability, though as a developing country, to maintain its sovereignty in the face of massive pressures from foreign countries and international institutions. In preparation to face the GRTKF protection era, future research is needed on how the government will be able to deal with the issue of access to medicines once GRTKF protection is institutionalized under TRIPS. This is important because the access and benefit-sharing as required in the use of GRTKF by non-Indian private sectors will translate to bigger investment for the production of medicines, which may cause an even higher price of medicine.

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