

# Biopiracy: Myth or Reality?

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**ABSTRACT.** “Biopiracy” is a term used to describe the appropriation of traditional knowledge of native communities regarding the beneficial uses of local genetic resources, for the purpose of generating commercial profits. Developing countries have voiced strong opinion against this practice in various global forums, arguing that it leads to exploitation of traditional knowledge since the native communities get no part of the huge profits generated by companies through biopiracy. On the contrary, the western countries adopt an instrumentalist view and question the legitimacy of claims against biopiracy, on the ground that the practice of using a native community’s traditional knowledge to develop and patent inventions causes no harm to the community which can continue its traditional use of the resource. This paper analyses this debate by examining the theoretical and legal justifications for both sides. Various legal instruments like the TRIPS Agreement and the Convention on Biological Diversity have been analysed to understand their implications on the issue of biopiracy. The main objective of the paper is to understand the “piracy” element of biopiracy by analysing the actual harm caused to the indigenous communities whose traditional knowledge is appropriated, thereby reaching a conclusion regarding whether biopiracy is a myth or reality. The paper concludes with certain suggestions to effectively tackle the issue of biopiracy in a way that reconciles a community’s cultural rights in their traditional knowledge and rights of others to benefit from this knowledge for development of drugs etc.

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## INTRODUCTION

Biopiracy can be described as the unauthorized use or appropriation of traditional indigenous knowledge regarding the beneficial uses of plants or animal specimens along with the chemical and genetic resources contained therein, by third parties for commercial profit without sharing the same with the indigenous community.<sup>2</sup> Many of the least developed countries are rich in genetic resources but do not have the requisite technology to develop these resources, while the first world countries are poor in genetic resources but have highly developed technologies, which fuels biopiracy by developed countries.<sup>3</sup> Biopiracy can be of three forms, bio-prospecting that involves discovery of new plants and animals with beneficial uses, discovery of unknown benefits of a known plant and third, being the most abusive is the commercial exploitation of indigenous knowledge.<sup>4</sup> The pharmaceutical and the agricultural industry rely heavily on traditional knowledge regarding beneficial uses of plant genetic resources and are often the main drivers of biopiracy.<sup>5</sup> Examples of biopiracy include patent on basmati rice by an American corporation called RiceTec,<sup>6</sup> use of neem as a pesticide by W.R. Grace, medicinal use of turmeric, patent on the Mexican yellow bean etc.

The rhetoric associated with the term “piracy” has been used by both, developed countries advocating stronger intellectual rights protection for patented and copyrighted works, as well as third world countries who argue that first world countries commit “bio-piracy” by usurping endemic genetic resources from their State without authorization and subsequently using strong intellectual property laws to obtain a patent over inventions based on these genetic resources without sharing the commercial benefits derived from the same.<sup>7</sup> Predictably, developed and developing countries advocate opposing views in relation to the ill effects of biopiracy. Developing countries have been campaigning for protection of endemic knowledge and resources in various global forums like the World Trade Organization (WTO) and WIPO (World Intellectual Property Organization) and have argued that biopiracy exploits indigenous communities and their traditional knowledge.<sup>8</sup> On the other hand, western countries argue that acquiring patents

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2 Jim Chen, *There's No Such Thing as Biopiracy... and It's a Good Thing Too*, 37 McGeorge L. Rev. 1, 7 (2006).

3 Valentina Tejera, *Tripping Over Property Rights: Is it Possible to Reconcile the Convention on Biological Diversity with Article 27 of the TRIPs Agreement?*, 33 New Eng. L. Rev. 967, 972 (1998-1999).

4 Gavin Stenton, *Biopiracy within the Pharmaceutical Industry: A Stark Illustration of just how Abusive, Manipulative and Perverse the Patenting Process can be towards Countries of the South*, 1(2) Hertfordshire Law Journal, 1(2), 30, 36 (2003).

5 *Supra* no. 3.

6 Anthony Brown, *India fights US Basmati Rice Patent*, The Guardian, available at <http://www.theguardian.com/world/2000/jun/25/anthonybrown.theobserver> (Last Visited on 15/10/2014 at 21:30).

7 Cynthia M. Ho, *Biopiracy and Beyond: A consideration of socio-cultural conflicts with global patent policies*, 39 U. Mich. J.L. Reform 433, 436 (2005-06).

8 Catherine Saez, *Developing Countries Urged To Beat Biopiracy With Patent Examination, Regulatory Frameworks*, Intellectual Property Watch, available at <http://www.ip-watch.org/2014/02/07/developing-countries-urged-to-beat-biopiracy-with-patent-examination-regulatory-frameworks/> (Last Visited on 15/10/2014 at 21:30).

based on traditional knowledge is not a cause of concern since it has no adverse effect on native communities who continue to have the right to carry on their practices based on traditional knowledge. Question then arises, if no concrete harm is caused to the indigenous community by such patents, then why must the issue of biopiracy be considered seriously.

This paper scrutinises this debate by examining the legitimacy of claims and arguments made against and in favour of “biopiracy” by evaluating the theoretical, moral and legal justifications of both sides. Ultimately, the paper seeks to understand the “piracy” element of biopiracy by analysing the actual harm caused to the indigenous communities whose traditional knowledge is appropriated thereby reaching a conclusion regarding whether biopiracy is a myth or reality.

### FAMOUS CASES OF BIOPIRACY

Famous cases of biopiracy include the grant of patent on the use of *neem* as insecticide and pesticide to W.R Grace by the European Patent Office, which was later revoked after the Indian government successfully showed evidence that this use has been known to native communities in India since 2,000 years.<sup>9</sup> Another example is the patent granted to US Scientists for medicinal uses of *haldi* or turmeric.<sup>10</sup> This was ultimately revoked for falling short of the “novelty requirement” necessary for acquiring patent protection.<sup>11</sup> The patent granted to Larry Proctor, head of a seed company for yellow beans grown in Mexico is also a famous case of biopiracy. This was vehemently challenged by the Mexican government and farmers since it negatively affected the export of such beans from Mexico to U.S. The exported products were not able to compete with the low product price set by the patent owner.<sup>12</sup> The patenting of medicinal uses of Rosy periwinkle, a native plant to Madagascar, in favour of Eli Lilly and Co is also a highly controversial case of biopiracy.<sup>13</sup>

### THEORETICAL AND LEGAL JUSTIFICATIONS FOR CLAIMS AGAINST THE PRACTICE OF BIOPIRACY

#### Moral Rights of Indigenous Communities

According to Hegel’s theory for protecting property, the justification for property rights stems from the need of humans to appreciate their personhood or develop

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9 *India wins landmark patent battle*. BBC News. available at <http://news.bbc.co.uk/2/hi/science/nature/4333627.stm>, (Last Visited on 15/10/2014 at 19:50).

10 Rakesh Kalshian, *Turmeric Biopiracy*, available at <http://www.outlookindia.com/article/Turmeric-Biopiracy/201841> (Last Visited on 15/10/2014 at 19:50).

11 Alyson Slack, *Turmeric*, TED Case Studies available at <http://www1.american.edu/ted/turmeric.htm>, (Last Visited on 15/10/2014 at 19:55).

12 New legal decision against Enola bean, CIAT Blog, available at <http://www.ciatnews.cgiar.org/2009/07/22/new-legal-decision-against-enola-bean/>, (Last Visited on 15/10/2014 at 21:00).

13 Chris Kilham, *Rosy periwinkle: A life saving plant*, Fox News, available at <http://www.foxnews.com/health/2013/07/31/rosy-periwinkle-life-saving-plant/>, (Last Visited on 15/10/2014 at 21:00).

their individuality by control of material possessions.<sup>14</sup> In fact, moral rights recognized under Berne Convention, stem from this justification.<sup>15</sup> Hegel's justification forms a strong basis for argument against biopiracy since it directly interferes with the indigenous communities' rights to develop their personhood by control of their traditional knowledge. In most cases, patent owners do not give due recognition or provide any compensation to the indigenous community which provides the knowledge that forms the basis of the patent.<sup>16</sup> This directly interferes with their rightful claim to getting recognition for their knowledge and also conflicts with their moral rights as understood under Hegel's theory. In fact, those opposed to biopiracy, often analyse the issue from the lens of moral rights, which affirms the communities' rights over their traditional knowledge and also grants them the choice to decide in which way the knowledge is used.<sup>17</sup>

### Cultural Rights of Indigenous Communities

The debate on intellectual property protections in applications of traditional knowledge or biopiracy needs to be seen in the context of cultural conflict between the western and the developing countries.<sup>18</sup> Traditional knowledge forms a part of the cultural heritage of the indigenous communities. The act of patenting involves commodification of traditional knowledge which is against the cultural principles of these communities.<sup>19</sup> Biopiracy directly interferes with the aspirations of indigenous communities to keep their traditional knowledge sacred.<sup>20</sup> Vandana Shiva, a renowned environmentalist, equated biopiracy with colonization as western countries steal and commercialize indigenous knowledge about nature to make huge profits.<sup>21</sup> Granting patents for applications based primarily on traditional knowledge ignore the socio-cultural harm it may cause to the native community, which believes that their traditional knowledge is sacred and a part of their common heritage which is only to be utilized for the good of the community.<sup>22</sup> The very idea of its use for monetary purposes is derogatory to their cultural beliefs. There are various legal instruments that recognize indigenous communities' moral and cultural rights in their traditional practices and knowledge. For example, Article 27 of the Universal

14 Haochen Sun, *Designing Journeys to the Social World: Hegel's Theory of Property and His Noble Dreams Revisited, Cosmos and History*, 6(1) *The Journal of Natural and Social Philosophy*, 33, 34 (2010).

15 Natalie C. Suh, *Moral Rights Protection in the United States Under the Berne Convention: A Fictional Work?*, 12(4) *Fordham Intellectual Property, Media and Entertainment Law Journal* 1203, 1208 (2002).

16 Biodiversity for Sale: Dismantling the Hype About Benefit Sharing, Global Trade and Biodiversity in Conflict, available at <http://www.grain.org/fr/article/entries/32-biodiversity-for-sale-dismantling-the-hype-about-benefit-sharing> (Last Visited on 15/10/2014 at 21:00).

17 Shubha Ghosh, *Reflections on the Traditional Knowledge Debate*, 11 *Cardozo J. Int'l & Comp. L.* 497, 500 (2003-04).

18 *Supra* no. 17, at 497.

19 The Impact of Intellectual Property Rights Systems on the Conservation and Sustainable Use of Biological Diversity and on the Equitable Sharing of Benefits from Its Use: A Preliminary Study, available at [http://www.iisd.ca/biodiv/cop3/3\\_22\\_vfinal.htm](http://www.iisd.ca/biodiv/cop3/3_22_vfinal.htm) (Last Visited on 15/10/2014 at 21:40).

20 *Supra* note 7, at 440.

21 Vandana Shiva, *Biopiracy: The Plunder of Nature and Knowledge (excerpts)*, available at [http://www.swaraj.org/shikshantar/shiva\\_vandana.html](http://www.swaraj.org/shikshantar/shiva_vandana.html) (Last Visited on 15/10/2014 at 21:40).

22 *Supra* note 7, at 456.

Declaration of Human Rights and Article 15 of International Covenant on Economic, Social and Cultural Rights protect the authors' rights in the moral and material interests arising from his production.<sup>23</sup> Article 8 of the UN Declaration on the Rights of Indigenous Peoples protects cultural values of indigenous communities.<sup>24</sup> In fact, a human rights framework is integral to any community's claim for right to preserve or control traditional knowledge.

### LEGAL PROTECTION UNDER CONVENTION ON BIOLOGICAL DIVERSITY AND RELATED LEGAL INSTRUMENTS (CBD)

Convention on Biological Diversity is the chief international legal instrument that deals with the sustenance, conservation and equitable use of biodiversity and related genetic resources.<sup>25</sup> Article 3 of the Convention recognizes the sovereign right of each State to exploit their resources in accordance with their own environmental policies.<sup>26</sup> Article 8(j) of the CBD provides for conservation of traditional knowledge and practices of indigenous communities with respect to their genetic resources. Article 15 of CBD recognizes national sovereignty rights over genetic resources thereby, making access to these resources subject to national legislations. It also provides that access and commercial use of genetic resources would be based on mutually agreed conditions regarding equitable sharing of benefits and with prior consent.<sup>27</sup> Interestingly, Article 16(5) lays down that the *intellectual property rights systems should not run counter to the objectives of the Convention*.<sup>28</sup> While Article 16(2) states that technology transfer process should be consistent with the protection under intellectual property rights, this sanction granted to intellectual property rights is limited since it is still subject to the limitations under Article 15 and Article 16(5).<sup>29</sup> Thus, CBD provides developing countries with a legal basis to seek a share in the benefits obtained by utilization of their genetic resources. The framework provided in the CBD reconciles the preservation and utilization of biological or genetic resources for profitable use.<sup>30</sup> The objectives underlying the CBD can be achieved through Access and Benefit Sharing Agreements between the State and the entity that seeks to use the traditional knowledge and indigenous resources for commercial purposes.<sup>31</sup> The Nagoya Protocol to the CBD was adopted in 2010 and it requires all State parties to take legislative and policy measures to implement

23 Article 27, Universal Declaration of Human Rights, 1948.

24 Article 8, UN Declaration on the Rights of Indigenous Peoples.

25 Article 1, Convention on Biological Diversity, 1992.

26 Article 3, Convention on Biological Diversity, 1992.

27 Article 15, Convention on Biological Diversity, 1992.

28 Article 16(5), Convention on Biological Diversity, 1992.

29 Sebastian Oberthür, Thomas Gehring, *Institutional Interaction in Global Environmental Governance: Synergy and Conflict among International and EU Policies*, The MIT Press, available at [http://www.uni-bamberg.de/fileadmin/uni/fakultaeten/sowi\\_professuren/politikwissenschaft\\_insb\\_int/Dateien/Mitarbeiter/Publikationen\\_Texterkennung/InstitutionalInteraction\\_text.pdf](http://www.uni-bamberg.de/fileadmin/uni/fakultaeten/sowi_professuren/politikwissenschaft_insb_int/Dateien/Mitarbeiter/Publikationen_Texterkennung/InstitutionalInteraction_text.pdf) (Last Visited on 15/10/2014 at 21:45).

30 Valérie Boisvert and Armelle Caron, *The Convention on Biological Diversity: An Institutional Perspective of the Debates*, 36(1) Journal of Economic Issues, 151, 152 (2002).

31 Michael A. Gollin, *Biopiracy: The Legal Perspective*, available at <http://www.actionbioscience.org/biodiversity/gollin.html> (Last Visited on 15/10/2014 at 21:45).

provisions of CBD.<sup>32</sup> Further, the Bonn Guidelines on Access to Genetic Resources, 2002 provide a blueprint for policies and national legislations to achieve the goals of CBD.<sup>33</sup> Thus, indigenous communities have a legal recourse as they can rely on these instruments to fight for their rights in their traditional knowledge.

### **Inconsistent Application of Policy Underlying Patent Law**

Reward theory on patent protection states that such protection is granted to reward the inventor for his labour and expense in creating the invention. If the purpose underlying patent law is to reward those who invested time and labour into the invention, then right of the indigenous communities over their traditional knowledge cannot be denied, since they perform all the development steps with respect to the invention other than the isolation of the active substance.<sup>34</sup>

### **Blurred Lines - Discovery v. Invention**

Granting of patents to applications of traditional knowledge on genetic resources has been criticized on the ground that it overlooks the distinction between discovery and invention in patent law. For example, Section 1(2) (a) of UK's Patent Act 1977 excludes "discoveries" from protection under patent law, however by granting patents to applications based on traditional knowledge, discoveries are being treated as inventions.<sup>35</sup> In fact, many countries like Brazil and Argentina do not even allow naturally subsisting materials to be patented.<sup>36</sup> Another requirement under patent law that has been diluted for such traditional knowledge based patents is the requirement of "novelty" in the invention. Interestingly, the novelty requirement with respect to patents based on plant genetic resources is only to show that the substance was not available in its pure form i.e., thus if indigenous communities use the active substance in a dilute form then a pure form of the substance fulfils the "novelty" requirement.<sup>37</sup> An unjust interpretation has been given to the "non-obviousness" requirement in relation to biotechnology based patents. For example, while the traditional knowledge with respect to use of *neem* as an insecticide is widely known, the identification and isolation of the active substance; azadirachtin is still treated as non-obvious despite it being quite clear that the isolation would not have occurred without the traditional knowledge on the *neem* seeds.

In the author's opinion, the validity of these patents can also be challenged under the "*tainted research doctrine*" which was laid down in the *Regents of the University of California v. Eli Lilly & Co.* according to which a case for fraud can be made against those who seek patents based on stolen research material.<sup>38</sup>

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32 *Supra* no. 17, at 501.

33 Bonn Guidelines on Access to Genetic Resources (Bonn Guidelines), 2002.

34 Lester I. Yano, *Protection of the Ethnobiological Knowledge of Indigenous Peoples*, 41 UCLA Law Review 443, 463(1993).

35 *Supra* no. 4, at 36.

36 *Ibid.*

37 *Supra* no. 34, at 460.

38 119 F.3d. 1559 (Federal Circuit ).

### Unjust and Unfair Exploitation of Traditional Knowledge: Possibility of Monetary Losses to Native Communities

Multi-national companies (MNCs) of developed countries end up making huge profits with small investment into the research and development of their products as they exploit the readily available traditional knowledge about the beneficial uses of plants.<sup>39</sup> In most cases, the indigenous groups assist MNCs in identifying medicinal and other beneficial uses of plants thus saving their time and money but get no part of the large profits made by these companies stemming from their monopoly through patents.<sup>40</sup> There is also a fear amongst the developing countries that MNCs will use the patented genetic material to develop cheaper products that will directly affect the market for goods produced by tribal communities.<sup>41</sup> MNCs often appropriate traditional knowledge of indigenous communities to create products to be later sold to the country of origin making the original inventors pay for it.<sup>42</sup> For example, ever since western companies started patenting various beneficial aspects of neem, the price of neem seeds has gone up considerably, thereby making it more expensive for local farmers to acquire the raw material and also puts him in competition with western industries providing products based on neem.<sup>43</sup>

### Unjust Superiority of Trips Over CBD

The main objective of The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is to reduce barriers to International Trade by considering the need of effective protection of intellectual property rights.<sup>44</sup> The TRIPS agreement also places an obligation on its signatories to create new intellectual property laws in accordance with the agreement or the WTO may impose sanctions on them.<sup>45</sup> Article 27(3)(b) of TRIPS provides that plant varieties can be a subject of either patent protection or a *sui generis* system of protection. Nations like the United States have argued that requirements of prior consent and benefit-sharing agreements conflict with Article 27(3)(b) of TRIPS. Hence, there is an inherent conflict between CBD and TRIPS, while one recognizes the rights of native communities to their traditional knowledge and resources; the other seeks to protect individual ownership rights in the same.<sup>46</sup> The biggest conundrum for those opposed to biopiracy is that TRIPS definitely wins the battle amongst the two, especially in terms of its legal binding value and strong enforcement mechanism.<sup>47</sup> While TRIPS

39 *Supra* no. 2.

40 Lakshmi Sarma, *Biopiracy: Twentieth Century Imperialism in The Form Of International Agreements*, 13 Temp. Int'l & Comp. L.J. 107, 113 (1999).

41 John Vidal, *Can you really patent a tree?*, The Guardian, 27 November, 1999, <http://www.theguardian.com/science/1999/nov/27/genetics.wto>.

42 *Supra* no. 34, at 496.

43 Vandana Shiva, *The neem tree - a case history of biopiracy*, available at <http://www.twinside.org.sg/title/pir-ch.htm> (Last Visited on 15/10/2014 at 19:10).

44 Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods, 1993.

45 *Supra* no. 3, at 969.

46 *Supra* no. 7, at 477.

47 *Supra* no. 7, at 481.



casts specific legally binding obligation on its member states, CBD only lays down vague and aspirational goals and no legally enforceable right.

## THEORETICAL AND LEGAL JUSTIFICATIONS IN SUPPORT OF BIOPIRACY

### No Harm Caused to the Indigenous Communities

Academic opinion often dismisses claims of biopiracy on the ground that patents on any invention based on the traditional knowledge of beneficial use of a plant, does not interfere with the rights of the native community to continue its traditional use of the same.<sup>48</sup> Giving the example of patent granted to W.R Grace, a U.S. company, on medicinal uses of Azadirachtin, a compound present in the *neem*, it has been argued that the patent only protected “*formulated products and synthetic derivatives*”, which would not affect any rights of the indigenous community to continue using the *neem* in its natural form for medicinal purposes.<sup>49</sup> However, the argument that the act of patenting has no effect on the indigenous community is misplaced. For example, as discussed above there has been a steep hike in the price of neem directly affecting the indigenous communities whose traditional knowledge was employed.<sup>50</sup> Many also argue that since the patent holder enjoys exclusive rights only in the registered jurisdiction, the indigenous community is not affected adversely. However, this argument fails to consider various adverse effects of the loss of access to a foreign market to the indigenous community.<sup>51</sup> This argument also fails to recognize the moral and cultural rights of indigenous communities in their traditional knowledge.

### No Justification for Granting Complete Control Over Traditional Knowledge To Indigenous Communities

The current intellectual property regime does not protect already existing knowledge and information (except for trade secrets to a certain extent),<sup>52</sup> and scholars in favour of bio-prospecting, often argue that protection cannot be granted to existing traditional knowledge about plant genetic resources.<sup>53</sup> In *Graham v. John Deere Co.*, the U.S Supreme Court reiterated this principle and stated that patents that remove

<sup>48</sup> *Supra* no. 2, at 5.

<sup>49</sup> Hannah Scutt, *Biopiracy: A Defence*, available at [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CB0QFjAA&url=https%3A%2F%2Fwww.kent.ac.uk%2Fflaw%2Fip%2Fresources%2Fip\\_dissertations%2F2004-05%2Fscutt.doc&ei=paI-VPSVHI7iuQTAgG4BQ&usq=AFQjCNGQ5LCZDuXfB7wzsk4vV5nB3aXzsg&sig2=5Q2eSFfzXOxf7XvObfSKsw&cbvm=bv.77648437,bs.1,d.c2E](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CB0QFjAA&url=https%3A%2F%2Fwww.kent.ac.uk%2Fflaw%2Fip%2Fresources%2Fip_dissertations%2F2004-05%2Fscutt.doc&ei=paI-VPSVHI7iuQTAgG4BQ&usq=AFQjCNGQ5LCZDuXfB7wzsk4vV5nB3aXzsg&sig2=5Q2eSFfzXOxf7XvObfSKsw&cbvm=bv.77648437,bs.1,d.c2E) (Last Visited on 15/10/2014 at 22:00).

<sup>50</sup> Vandana Shiva & Radha Holla-Bhar, Intellectual Piracy and the Neem Tree, 23 THE ECONOMIST 223, available at <http://www.uow.edu.au/~sharonb/STS300/science/nature/articles/artindigenous3.html> (Last Visited on 15/10/2014 at 22:00).

<sup>51</sup> *Supra* no. 4, at 37.

<sup>52</sup> Article 27(1), Agreement on Trade Related Aspects of Intellectual Property, 1994.

<sup>53</sup> Paul J. Heald, *The Rhetoric of Biopiracy*, 11 Cardozo J. Int'l & Comp. L. 519, 522, (2003-04).

existing knowledge from the public domain should not be granted.<sup>54</sup> One of the most important justifications for intellectual property rights is that the monopoly granted therein acts as an incentive to creation and this also fails to sustain claims for protection of traditional knowledge which already exists.<sup>55</sup> It is also argued that economist theories justifying property rights to increase clarity in relation to ownership also fail in justifying protection of traditional knowledge due to the diverse nature of the knowledge concerned and the impracticality of identifying ownership.<sup>56</sup>

### Utilitarian Perspective: Universal Benefits from Commodification of Traditional Knowledge

Ever since the landmark decision in “*Diamond v. Chakrabarty*” that allowed a patent on genetically altered *Pseudomonas* bacterium,<sup>57</sup> the Supreme Court of the United States has consistently upheld grant of patents on genetically engineered life forms. Such patents have been justified by taking a utilitarian position and emphasizing on the need to disseminate information regarding beneficial use of genetic resources etc. which otherwise would remain unknown to the world. Arguably, native communities do not have the resources to make the most utilitarian use of their knowledge. The best example to support this argument is the development of a drug named Oncovin, essentially based on traditional knowledge regarding medicinal uses of the rosy periwinkle plant, for the treatment of leukemia.<sup>58</sup>

### Existing Safeguards are Sufficient to Redress All Legitimate Grievances of Indigenous Communities

Some believe that the current intellectual property law regime may be sufficient to redress the legitimate grievances of the developing countries. Thus, if any indigenous community is legitimately suffering any harm due to these patents then the current intellectual property regime redressal mechanism is sufficient to address their concerns. For example, EU interprets “prior art” to include traditional knowledge of communities belonging to foreign states, thereby making acquisition of patents for products that are based on traditional knowledge stricter and difficult, which itself would prevent cases such as controversial patent granted to “*Neemix*” or on medicinal uses of *haldi* as described above.<sup>59</sup>

### CONCLUSION: MYTH OR REALITY?

Biopiracy is certainly a reality especially in light of its broader global repercussions.<sup>60</sup> As discussed before, western countries often downplay the “piracy” element of

<sup>54</sup> 383 U.S. 1 (1966).

<sup>55</sup> *Supra* no. 53, at 524.

<sup>56</sup> *Ibid.*

<sup>57</sup> 447 U.S. 303 (1980).

<sup>58</sup> Chris Kilham, *Rosy periwinkle: A life saving plant*, Fox News, available at <http://www.foxnews.com/health/2013/07/31/rosy-periwinkle-life-saving-plant/>, (Last Visited on 15/10/2014 at 21:00).

<sup>59</sup> *Supra* no. 2, at 29.

<sup>60</sup> *Supra* no. 7, at 439.

biopiracy on the ground that existence of patents on applications of traditional knowledge does not conflict with the continued exercise and use of the resource in its natural form by the native communities.<sup>61</sup> However, this instrumentalist view fails to recognize the derogatory effects of the same on the cultural rights of the indigenous communities. While the perpetuation of traditional knowledge by natives is aimed at communal good, the idea behind patents is granting individualised monopolies for commercial purposes. The western perspective also fails to address that despite the significant role played by the indigenous communities in identification of the genetic resource that forms the primary basis for the application for which a patent has been acquired, the patent would be in the name of the multi-national company providing no legal entitlements to the community.<sup>62</sup> In most cases, communities have to fight for getting any kind of compensation, and even in cases where compensation is granted, it forms a miniscule amount when compared to the profits the company makes. This certainly gives the indigenous communities legitimate grounds to argue that their traditional knowledge has been pirated. Thus, Biopiracy is no myth and is as real as the suffering of the indigenous community due to the commodification of their knowledge.

## SUGGESTIONS

### Reconcile CBD And Trips

To effectively deal with the issue of biopiracy, there needs to be a reconciliation of community's cultural rights in their traditional knowledge and other's rights to benefit from this knowledge for development of drugs etc. The first step that can be taken in this regard is reconciliation of TRIPS and CBD. In fact, developing countries are pushing for amendments in the TRIPS agreement that makes granting of patents subject to or conditional upon compliance with Convention on Biological Diversity (CBD). One way of reconciling the objectives of TRIPS and CBD would be to make granting or validity of patents conditional on compliance with obligations under CBD i.e., amending the patent requirements. India has vehemently argued amending Article 27(3)(b) of TRIPS to indicate that patents that are essentially based on traditional knowledge should not be granted or it should be supported by a disclosure with respect to the origin of the biological resource it relies upon and the proof that prior consent of the community and the State concerned has been acquired.<sup>63</sup> The requirement of "novelty" for grant of patents needs to be defined in a way that ensures that publication or knowledge even outside the national boundaries of the patent granting State are considered before the awarding of the patent.

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<sup>61</sup> *Supra* no. 7, at 456.

<sup>62</sup> *Supra* no. 7, at 459.

<sup>63</sup> Council for TRIPS, Review of the Provisions of Article 27.3(b), Communication from India, available at [http://www.wto.org/english/tratop\\_e/trips\\_e/art27\\_3b\\_e.htm](http://www.wto.org/english/tratop_e/trips_e/art27_3b_e.htm) (Last Visited on 15/10/2014 at 22:01)

### **Creation of National Gene Funds/Digital Libraries**

Creation of digital libraries of traditional knowledge will assist in protection of traditional knowledge of indigenous communities. A traditional knowledge database makes it harder for multinational companies to get patents based on the same, as the “knowledge” recorded in the database would act as a “publication” making it easier to argue that it is a “prior art”, for which a patent cannot be granted.<sup>64</sup> The Traditional Knowledge Digital Library of India established by the Council of Scientific and Industrial Research (CSIR) is an example of such libraries created for the protection of traditional knowledge.<sup>65</sup>

### **Protect Traditional Knowledge Through National Legislation or A Sui Generis System**

Developing countries should enact national legislations that grants native communities complete rights over their traditional knowledge and resources. For example, Philippines enacted the Indigenous Peoples Rights Act, 1997 which grants indigenous communities control and rights over their traditional knowledge and genetic resources.<sup>66</sup> Various associations and groups of developing countries like ASEAN, G-15 have also initiated efforts to protect traditional knowledge of their native communities.<sup>67</sup>

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<sup>64</sup> *Supra* no. 4, at 44.

<sup>65</sup> Traditional Knowledge Digital Library, Council of Scientific and Industrial Research, available at <http://www.tkdil.res.in/tkdil/langdefault/common/Home.asp?GL=Eng> (Last Visited on 15/10/2014 at 21:25).

<sup>66</sup> The Indigenous Peoples Rights Act 1997.

<sup>67</sup> Raghavan Chakravarthi, Asean for Protecting Indigenous/Traditional Knowledge, available at <http://www.twinside.org.sg/title/asean.htm> (Last Visited on 15/10/2014 at 21:20).