

## Trade-related intellectual property rights, livelihoods and the right to food

### India

#### INTRODUCTION AND BACKGROUND

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#### **Worldwide agricultural trends that undermine biological and cultural diversity, and hinder access to food**

The importance of the agricultural sector in developing countries as a source of food, employment, livelihoods and culture cannot be overstated. A productive and sustainable agricultural sector is critical to achieving poverty reduction and economic growth,<sup>1</sup> and maintaining healthy communities. Worldwide, around 70% of the world's poorest people live in rural areas and are dependent on agriculture for their income, food supply and livelihoods. For India, agriculture remains the backbone of the economy, contributing 21 per cent of GDP and employing 53 per cent of all male workers and 75 per cent of all female workers.<sup>2</sup> Yet underinvestment in this sector is causing crises for farmers – most tragically illustrated by an increasing spate of farmer suicides.

Until recently, actors involved in agricultural management favoured an approach which gave priority to the sharing of biological resources and related knowledge between people and across countries. This has rapidly given way to a strategy which favours the appropriation of knowledge through intellectual property rights (IPRs).<sup>3</sup> This is a worrying trend because IPRs are not designed to respond to socio-economic concerns such as food security,<sup>4</sup> but rather were designed to promote technological development.

Today large private life-science companies undertake most agro-biotechnology research, based on the financial returns that they can guarantee due to IPRs. It is uncertain whether these companies are likely to focus their research efforts on the – usually less lucrative – plant varieties of interest to poor farmers and consumers in developing countries. This implies that such research is only likely to come from public sector research institutes or International Agricultural Research Centres (IARCs).<sup>5</sup> Moreover, due to the sheer size of commercial life-science firms and the financial benefits for them to engage in large-scale production, their research and production efforts tend to promote intensive production of only a few crops – thus weakening biological diversity and making farmers more vulnerable when blight strikes.

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<sup>1</sup> UK Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy, Report of the Commission on Intellectual Property Rights, Chapter 3, Agriculture and Genetic Resources*, 2002, available at [www.iprcommission.org/papers/text/final\\_report/chapter3htmfinal.htm](http://www.iprcommission.org/papers/text/final_report/chapter3htmfinal.htm)

<sup>2</sup> WIDE, *Economic growth without social justice: EU-India trade negotiations and their implications for social development and gender justice*, 2007, available at <http://62.149.193.10/wide/download/WIDE%20EU%20INDIA%20NEW.pdf?id=542>

<sup>3</sup> Philippe Cullet, 'Intellectual Property Rights and Food Security in the South,' *7/3 Journal of World Intellectual Property*, 2004.

<sup>4</sup> Philippe Cullet, *supra*.

<sup>5</sup> Philippe Cullet, *supra*.

Owners of IPRs can prevent others from producing or selling the seeds or plant varieties over which he or she owns the rights, which makes farmers dependent on the owner of the intellectual property to supply the seeds. The IPR owners (usually private corporations) are free to set high prices or royalties on the seeds, and they retain a degree of control over how seeds are used or reused. With increasing corporate concentration in the agricultural sector, the seed owners have the power – which they already use – to raise prices of seeds and other agricultural inputs. In India the introduction of genetically-modified cotton has already had devastating effects.

In addition to increasing the cost of food, jeopardizing the ability of farmers to derive a livelihood from farming when seed prices increase, and slowing down public-interest-oriented agricultural research, the ownership of IPRs on seeds goes counter to traditional practices of exchanging and saving seeds, thus undermining community and cultural rights.

As well as being an essential feature of traditional cultures, the exchange of seeds between farmers is fundamental for other reasons, including that it enables them to circulate diverse seed varieties – crucial in maintaining biodiversity and in adapting seeds to specific climatic and soil conditions, which ensures long-term agricultural sustainability, as well as favouring long-term food security, and permitting rural communities to maintain their culture. In the shorter term, saving and resowing seeds is vital for the realization of the right to food as it means farmers do not have to pay for new seeds each season.

Moreover, the trends towards strengthening intellectual property (IP) systems worldwide point to an increasing ability of private companies to protect IPRs, which, if not stemmed, could result in further privatisation of genetic resources and agricultural knowledge, with the alarming prospect of ever more focusing research on lucrative developing country markets rather than developing country needs, of further undermining biodiversity and local cultures and increasing seed prices.<sup>6</sup>

## **The situation in India**

Like other countries, in recent years India has brought about changes to its Intellectual Property (IP) laws, primarily to comply with the WTO Agreement on Trade-Related Intellectual Property Rights (TRIPS Agreement). The changed IP rules, as well as the introduction of genetically-modified seeds in the country, already restrict farmers from saving, re-sowing, selling or exchanging seeds.

IP-related changes have caused a high rise in the price of certain seeds and in conjunction with other factors specific to India (high cost of credit or varying climatic conditions, *inter alia*), have increased the alarming spate of farmer suicides and caused countless cases of malnutrition or loss of livelihood.<sup>7</sup> Other consequences of these changes infringe the enjoyment of the right to an adequate standard of living, particularly to food, as well as of cultural rights. The changes have been particularly brutal in their impacts on vulnerable groups such as small-scale farmers, or rural women.

Despite the already harmful effects on livelihoods and access to food, discussions are currently under way with a view to introducing new and more stringent IP-related laws which could exacerbate existing problems. These include India's 2004 Seed Bill<sup>8</sup>, currently before

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<sup>6</sup> See WIDE, *Economic Growth without Social Justice*, *supra* note 2.

<sup>7</sup> For more on this, see People's Collective for Economic, Social and Cultural Rights, *Divided Destinies, Unequal Lives, Economic, Social and Cultural Rights in the Indian State, NGO Report to the UN Committee on Economic, Social and Cultural Rights*, 2008, page 50 sqq.

<sup>8</sup> For full text of the draft 2004 Seed Bill, see [faolex.fao.org/docs/texts/ind61477.doc](http://faolex.fao.org/docs/texts/ind61477.doc) or [www.grain.org/brl/?docid=891&lawid=2353](http://www.grain.org/brl/?docid=891&lawid=2353)

Parliament, India's possible ratification of UPOV (the Convention for the Protection of New Varieties of Plants), trade negotiations underway between India and the European Union (EU), and imminent trade talks between India and the European Free Trade Area (EFTA, includes Iceland, Liechtenstein, Norway and Switzerland).

## **About this submission**

3D → Trade - Human Rights - Equitable Economy (3D) is a not-for-profit organization based in Geneva, Switzerland. Our work seeks to ensure that trade and IP policies are developed and applied in ways consistent with human rights and the promotion of an equitable economy. We believe that human rights mechanisms such as the Committee on Economic, Social and Cultural Rights (Committee, CESCR) can play a crucial role towards this objective by reminding States that compliance with international trade rules and IP standards cannot justify non-compliance with human rights obligations. In particular, we believe that by drawing States' attention to ways in which the trend towards more strict IP standards can impact on human rights, on livelihoods and on long-term development prospects, the Committee will help ensure coherence of policies and human rights-consistent outcomes.

This submission builds on a presentation before the Pre-Sessional Working Group of the Committee in May 2007,<sup>9</sup> and draws on a forthcoming publication in 3D's THREAD (Trade Human Rights and the Economy, Action updates)<sup>10</sup> series, which will focus on how trends towards stricter IP protection affect the right to food as well as related rights such as the right to work, and the right to take part in cultural life.

## **RIGHT TO FOOD IMPACTS OF CHANGING INTELLECTUAL PROPERTY LAWS IN INDIA**

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In India, agriculture – the backbone of the economy – contributes 21 per cent of GDP and employs 53 per cent of all male workers and 75 per cent of all female workers. Yet public investment in agriculture as a proportion of GDP has fallen, and employment opportunities in rural areas have contracted. The decline in *per capita* output of food grains has resulted in regional food insecurity and pockets of hunger.<sup>11</sup>

In paragraph 351 of its report to the Committee, India notes that it has taken a range of measures to promote self-sufficiency in the production of food grains. These efforts could be undermined if the country permits concentration of seeds sales in the hands of a few companies instead of facilitating the saving, exchanging and re-sowing of seeds by farmers themselves.

### **Genetically modified seeds and farmer suicides**

This concentration of seeds in a few hands can already be witnessed. Monsanto has patents over GM cotton all over the world and they own the patent on Bt cotton. Monsanto in partnership with Indian based Mahyco company is the owner of the four varieties of Bt cotton approved for use in India.<sup>12</sup> The company asserted that the Bt variety of cotton seed can result

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<sup>9</sup> 3D → T HR EE, *Presentation before the Pre-Sessional Working Group of the Committee on Economic, Social and Cultural Rights*, 21 May 2007, available at [www2.ohchr.org/english/bodies/cescr/cescrwg38.htm](http://www2.ohchr.org/english/bodies/cescr/cescrwg38.htm)

<sup>10</sup> Available on 3D's website at [www.3dthree.org/en/page.php?IDpage=38&IDcat=5](http://www.3dthree.org/en/page.php?IDpage=38&IDcat=5)

<sup>11</sup> WIDE, *Economic Growth without Social Justice*, *supra* note 2.

<sup>12</sup> Anitha Ramanna, 'Bt cotton and India's policy on IPRs,' *Asian Biotechnology and Development Rev.*, 2005.

in higher yield than the hybrid indigenous variety of cotton seeds. Further, Monsanto said that by using Bt cotton variety farmers may no longer have to expend on spraying pesticides to ward off pests and this in turn would save them significant costs. Thus, cotton farmers in India shifted gradually to Bt cotton variety.<sup>13</sup>

Initially Bt variety – planted since 2002 in some parts of India – resulted in higher yield. Consequently more Indian farmers took to Bt variety of cotton seeds. In 2005, approximately 1.26 million hectares was under Bt cotton cultivation and as per the central government estimation, in 2006 nearly 3.28 million hectares were under Bt cotton cultivation.<sup>14</sup> But with the Bt variety of cotton seeds, farmers could no longer save seeds and resow them on their lands. The farmers had to buy new cotton seeds from Mahyco-Monsanto each year at a price fixed by the company, and that price has gone up. Mahyco Monsanto Biotech is now charging 1850 Rs per 450 gram pack of Bt cotton seeds<sup>15</sup> as compared to Rs 38 charged in China for the same quantity. In India, the price for non-Bt cotton variety is at Rs 450 to 500.

As more and more farmers began to use Bt cotton seeds from Monsanto, they were no longer left with their own indigenous variety of cotton seeds. And as a result of increased demand for Bt cotton variety, seed dealers have moved to sell more Bt cotton seeds than local or non-Bt variety of cotton, thus reducing the options for farmers, and jeopardizing long-term biological diversity.

While Bt variety of cotton seeds resulted in high yield in the initial years of its introduction, the yields gradually started to taper off and failed miserably in later years. The main reason for this is that Bt cotton seeds were not suited to varied weather conditions prevalent in India. Further the Bt cotton variety in the long run resulted in higher use of pesticides as it was unable to ward off the various pests that infest the cotton plants in India: throughout the country, Bt cotton crops have been attacked by "Lalya" or "reddening," a disease unseen before, which affected the GM acreage more than the non-Bt cotton crop.<sup>16</sup> This resulted in a vast majority of cotton farmers spending substantial amount of money buying seeds and pesticides. According to a study, in the recent years, the gross margin for non-Bt farmers worked out to be Rs.10,880 per hectare, while the margin for Bt farmers was merely Rs.1435.<sup>17</sup>

Besides, controlling the price of patented transgenic seeds, companies selling GM seeds typically require farmers to sign an agreement with the company. Such agreements contain provisions that allow the farmer to use only the company-prescribed fertilizer in order to get a good yield and may also prohibit the farmer from saving and re-sowing the transgenic seeds. In the times when Indian farmers are committing suicide due to rising costs of farming and lower price for their produce, this increased cost of seeds and restrictive agreements could impact agriculture and may in general affect access to food. The already poor rural farmers are further impoverished as they are driven into debt from trying to adopt farming inputs, paying royalties to the seed companies and buying seed each year.

The failure or low yield coupled with high input costs has left farmers in a debt trap and with reduced income, thereby affecting their income levels and access to adequate food. As a result of the high price of Bt cotton seeds and the failure of Bt cotton in various parts of India, thousands of farmers have committed suicide in the last few years.<sup>18</sup>

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<sup>13</sup> Devinder Sharma 'Has the Bt bubble burst?' *India Together*, 7 Oct 2006.

<sup>14</sup> Keya Acharya, 'Bt: Flaky results, pre-determined consensus,' *India Together*, 11 Aug 2006.

<sup>15</sup> 'AP govt agrees to out-of-court settlement with Monsanto,' *Financial Express*, 2 Jan 2007.

<sup>16</sup> Anuradha Mittal, *Harvest of suicides: how global trade rules are driving Indian farmers to despair*, 2008, available at [www.thefreelibrary.com](http://www.thefreelibrary.com)

<sup>17</sup> PV Sateesh 'Genetically Engineered spin,' *India Together*, 18 Nov 2007.

<sup>18</sup> Devinder Sharma, 'Failure of 'improved' technology: The harvest that never was,' *Deccan Herald*, 28 Jan 2006. See also Navdanya, *India's Agrarian Suicides*, 15 July 2004, [www.navdanya.org/news/04july15.htm](http://www.navdanya.org/news/04july15.htm) See also WIDE, *Economic Growth without Social Justice*, *supra* note 2, at page 8.

A new development is particularly worrying: India has recently allowed field trials of GM varieties of rice, brinjal and groundnut. In addition to individual suffering, experience with GM seeds so far in India visibly undermines traditional agriculture, impedes sustainability and diversity, and contributes to the loss of traditional knowledge and culture, contrary to the Covenant on Economic, Social and Cultural Rights. India should thus tread cautiously before allowing new such crops.

Indeed, the Committee, in its General Comment on the Right to Food,<sup>19</sup> recognizes the care that should be taken to ensure the most sustainable management and use of natural and other resources for food at the national, regional, local and household levels. The General Comment also exhorts States parties, as part of their obligations to protect people's resource base for food, to take appropriate steps to ensure that activities of the private business sector and civil society are in conformity with the right to food.

### **Plant Varieties, IP protection and livelihoods**

As noted in paragraph 393 of the Indian government report, the Protection of Plant Varieties & Farmers Rights Act 2001 has been enacted, to comply with the WTO Agreement on Trade-related Aspect of Intellectual Property (TRIPS). Through the PPVFR Act, India has opted for a *sui generis* – rather than a patent – system of protection of plant varieties. The Act provides protection to plant varieties, and still enables farmers to save, resow, exchange and sell new plant varieties developed by breeders and farmers.

This enables plant breeders to get protection for developing new plant varieties. The duration of the protection is 15 years for plant varieties. The PPVFR Act provides enough flexibility to allow any person to utilise the protected plant variety for experiments and research or in order to develop new plant varieties or improve upon the existing plant varieties.

The PPVFR Act also recognizes the rights of farmers. It enables a farmer who is engaged in the conservation of diverse varieties of plants for recognition of reward from the National Gene Fund. This is particularly important given that there are a number of varieties of food grains in India that are facing the threat of being wiped out. Under PPVFR Act, the farmers' rights also include the right to save, use, sow, re-sow, exchange, share or sell their farm produce, as they have done for centuries, including seeds of a protected variety. This can be invaluable as the farmer will not have to spend on buying seeds.

Moreover, on a larger-scale, permitting farmers to save, sow, re-sow and exchange seeds is crucial as most of the knowledge transfer about plants happens through the exchange of seeds between farmers. This enables the farmers to develop and maintain diversity in plant varieties and seeds, which is vital for agricultural development and for environmental protection. For instance, a plant breeder may have protection under PPVFR over a drought resistant maize variety, but this does not prevent the farmer who is possession of the protected variety of maize from saving, re-sowing, exchanging the seeds of the maize variety. The farmer is only prevented from selling such a protected variety under a brand name. Moreover, farmers are free to develop new breeds over the protected maize variety.

### **Seed Bill 2004**

However a draft Seed Bill (Seed Bill 2004) is currently before the Indian Parliament. If passed, it could drastically affect farmers' rights, impacting farmers' access to seeds and

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<sup>19</sup> Committee on Economic, Social and Cultural Rights, *General Comment 12 – The right to adequate food (Art. 11)*, 1999, available at <http://www2.ohchr.org/english/bodies/cescr/comments.htm>

potentially raise the costs of food production. While the PPVFR allows the farmers to freely exchange seeds, the Seeds Bill 2004 would make it mandatory for every person who intends to sell or barter seeds to obtain registration certificate. In addition, the Seed Bill enables the period of IP protection to be doubled, which means the seeds could be protected for 30 years, thus extending the monopoly of the owner of the seeds.

Whereas the PPVFR has provision for compulsory license to be issued if seeds are not sufficiently available in the market or if the seed prices are high, the Seed Bill fails to provide any such protection to the farmer; the Bill contains no mechanism to regulate seed supply or seed price.<sup>20</sup> This will enable seed companies to set high prices for seeds, and will leave the government no means to control the price even if the public interest so warrants. It could also mean that seed providers are under no obligation to ensure a reasonable seed supply to farmers.<sup>21</sup>

The proposed Seed Bill could thus hinder farmers' access to affordable seeds and thus to food, contrary to the right to food.

## **UPOV**

As noted earlier, TRIPS allow countries to design their own *sui generis* system of protection for Plant Varieties. The UPOV Convention, which is based on legislation introduced in Europe and the US – and designed with the commercialised farming systems of developed countries in mind – is one such system. India has, through the PPVFR, developed its own *sui generis* system of plant variety protection that is both WTO-consistent and suited to the agricultural practices in the country.

If India joined UPOV it would have to amend the PPVFR Act, to the detriment of farmers, quality and diversity of seeds. The UPOV Convention weakens farmers' rights to save, re-sow, exchange or sell seeds of protected varieties, as it only allows farmers to save seeds if they do not undermine the breeders rights. Therefore farmers would only be able to save and re-sow seeds on their own lands but will not be able to exchange or sell seeds.

UPOV also restricts the farmers from circulating any innovation made by them over the breeders' plant variety. This curtails circulation of improved seeds. For instance a farmer who has improved on the yield of a breeder protected soy variety may not be able to circulate, exchange or an improved variety without seeking the permission of the breeder of the initial soy variety.

There is thus no need for India to sign the UPOV Convention, which would seriously compromise the farmers' rights. Moreover, ratification of the agreement would force India into a situation in which it could not fulfil its obligations under the right to food. Not only would seeds risk becoming more expensive, thus making it harder to realize the right to food in the short-term, by curtailing circulation of improved and locally-adapted seeds, UPOV ratification could be a long-term obstacle in the way of realization of the right to food.

## **Trade agreements**

### European Union

India has begun discussions with the European Union (EU) on a trade agreement, which is slated to include provisions on Intellectual Property, including in all likelihood, requests from the EU that India increase IP protection for seeds. The text or probable contents of the

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<sup>20</sup> Suman Sahai, 'The Controversial new Seed Bill,' *Gene Campaign*, 2005.

<sup>21</sup> For a more detailed analysis, see S. Ramachandran, 'The Seed Bill 2004: An Attack on Basic Right of Peasantry,' *People's Democracy*, 25 June 2005.

agreement are not publicly available, contrary to human rights principles of participation in policy-making and access to information. It is public knowledge, however that IP issues have been particularly contentious in these trade talks between the EU and India.

Beyond possible impacts on access to seeds, the planned EU-India trade agreement may not be advantageous for India. Indeed, the 2007 UN Conference on Trade and Development (UNCTAD) report on Trade and Development<sup>22</sup> warns developing countries like India against rushing into bilateral trade pacts with developed countries, as these reduce their policy space regarding government procurement, services, the public sector, development-focussed trade policies, and alternative growth strategies.<sup>23</sup>

In addition, two economic impact analyses commissioned by the EU have already been published,<sup>24</sup> and suggest that the outcome of the FTA will probably be fairly asymmetric, with the EU share of Indian markets rising more than the Indian share of EU markets, and with India having to open up, cut tariffs and reduce protectionist measures much more than the EU.<sup>25</sup>

### European Free Trade Association

Negotiations for a trade agreement between India and EFTA countries are planned to start in mid-2008. Past trade agreements between groups of EFTA countries and developing country partners have included high intellectual property standards, and Switzerland is particularly likely to push for India to ratify UPOV through this agreement.

These two trade agreements could restrict India's policy space in a range of areas important for the realization of human rights. In particular, the Indian government should resist any pressure in the negotiations and should not agree to standards higher than those required by the World Trade Organization TRIPS Agreement. It should not agree to ratify UPOV or to implement UPOV-like standards as a trade-off for other promised benefits under the trade agreements, given UPOV's inappropriateness for developing countries such as India and the likely short-term and long-term adverse effects on economic, social and cultural rights.

## QUESTIONS AND RECOMMENDATIONS

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### In general:

The Committee should recommend to all countries, including India, to link revisions to its IP laws affecting plant varieties and agricultural research, to its strategies for realizing human rights, particularly the right to food and the right to take part in cultural life.

We encourage Committee members to raise with the delegation of India the issues raised on page 53 of the NGO report on Economic, Social and Cultural Rights in the Indian State<sup>26</sup> to prevent excessive indebtedness of Indian farmers and to support the agricultural sector in general. For instance, a Crop Insurance Scheme should be implemented so that farmers who are affected by crop failure will be relieved of the subsequent financial burden (this would

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<sup>22</sup> UNCTAD, *Trade and Development Report 2007, Regional Cooperation for Development*, available at [www.unctad.org/Templates/WebFlyer.asp?intItemID=4330&lang=1](http://www.unctad.org/Templates/WebFlyer.asp?intItemID=4330&lang=1)

<sup>23</sup> WIDE, *Economic Growth without Social Justice*, *supra*, note 2.

<sup>24</sup> A sustainability impact assessment, of the economic, social and environmental impacts of a EU-India trade agreement is being carried out by ECORYS Netherlands, see <http://tsia.ecorys.com/india>

<sup>25</sup> See WIDE, *Economic Growth without Social Justice*, *supra*, note 2, at pp 16-17.

<sup>26</sup> People's Collective for Economic, Social and Cultural Rights, *Divided Destinies, Unequal Lives, Economic, Social and Cultural Rights in the Indian State, NGO Report to the UN Committee on Economic, Social and Cultural Rights*, May 2008.

require making the existing Crop Insurance Scheme more farmer friendly, with lower premia and less red-tape).

**With regard to GM seeds and crops:**

We encourage Committee members to invite the Indian government to carry out assessments of the safety of GM crops for human and plant life before approving any new GM seeds for sale or crop trials in India. It should also hold the companies selling GM seeds accountable to claims of the crops' resistance to disease and low need for chemical inputs, as well as to control prices.

**With regard to the Seed Bill 2004:**

The Seed Bill 2004 should not be passed in the present form as it will have very serious adverse effects on the right to food, the right to take part in cultural life and on Indian agriculture.

**With regard to UPOV:**

India should not join UPOV as this would prevent farmers from saving and re-sowing seeds of new plant varieties.

**With regard to planned trade agreements:**

India should restrain from entering into any free trade agreements that could compromise the right of farmers to save or exchange seeds. The Indian government should not enter into trade agreements without first having carried out impact assessments of their likely impacts on the enjoyment of economic, social and cultural rights in India, with particular attention to vulnerable groups such as women, children, rural communities and indigenous groups.

Specifically, we encourage the Committee to recommend, as it has in the case of intellectual property rights affecting the price of medicines, that countries make full use flexibility permitted by TRIPS, in this case to ensure that seeds are still accessible to farmers, particularly to the most vulnerable and poorest amongst them.

We also encourage the Committee to recommend, as the Committee on the Rights of the Child has in the case of intellectual property rights affecting the price of medicines, that States parties conduct an assessment of the impact of new IP standards on the price, availability and long-term diversity of seeds, in order to avoid undermining the enjoyment of the rights protected by the ICESCR.