## THE RIGHT TO GROW: GENETICALLY MODIFIED SEED PATENTING AND CIVILIAN RESISTANCE IN GUATEMALA

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In 2014, mass civil disobedience in Guatemala effectively resisted government and corporate efforts to nationally legalize the patenting of genetically modified seeds. This paper examines the dynamics of seed patenting, with attention to the corporate interests and actions that propagate this trend and to the externalities that fall upon civilians and their cultural, economic and food security rights. Next, the paper examines the risks posed specifically to Guatemalan civilian and indigenous concerns when the government passed a decree to legalize seed patenting. This event is examined through the political and economic histories that influenced this conflict and the civilian interests that were threatened, specifically regarding the dynamics of the dietarily and culturally essential maize plant. Finally, the paper examines the strategies and organizations that effectively abolished the decree, emphasizing the potential of civilian disobedience in protecting civil rights.

While the human modification of seeds has long been a practice of agricultural development, the relatively recent commercialization of this modification is changing the legal, social, economic and cultural dimensions of agriculture, food security and human rights. Seed modification's traditional/local and modern/commercial avenues are in question and conflict in Guatemala, where maize production and its patentability have been vigorously contested.<sup>1</sup> The interest of farmers, and other civilians reliant on the resources they provide, are interconnected and often at odds with the positions of the corporations and states who stand to benefit from the Intellectual Property Rights (IPR) to Genetically Modified (GM) crops. The patenting of seeds has remained illegal in the state of Guatemala, despite corporate and governmental efforts, due to "protocols that

<sup>&</sup>lt;sup>1</sup>James Klepek, "Against the Grain: Knowledge Alliances and Resistance to Agricultural Biotechnology in Guatemala." (Canadian Journal of Development Studies, 2012), 313.

protected their natural patrimony" and the consistent, forcefully unified resistance and resilience of civilian coalitions.<sup>2</sup> This tool was resisted by the Guatemalan people through the coordination and coalition of civilian groups fighting for the variable-sum protection of the cultural, economic and food security interests that rely upon the traditional agricultural systems in place. The patenting of GM seeds is a tool employable by actors who seek to propagate their zero-sum positions through the oppression of rights of those who produce and rely upon agriculture, in both commercial and subsistence forms.

As genetic modification (GM) technology advances and infiltrates the agricultural system, the commercialization and policies of seed use constantly evolve and affect all participants of the agricultural system. Seed patenting is the process by which seeds, once modified from their original state by human manipulation, are attributed legal ownership through intellectual property rights (IPR) to their genetic structure.<sup>3</sup> This intellectual ownership of plant variations is regulated and enforced at a national level.<sup>4</sup> An international trend amongst IPR-GMO laws is their disproportionate focus on the rights and positions of breeders and discoverers with relative lack of regard for the rights and interests of farmers and consumers.<sup>5</sup> A 2008 report by the International Assessment of Agricultural Knowledge, Science, and Technology for Development stated that "[t]echnologies such as high-yielding crop varieties, agrochemicals and mechanization have primarily benefitted the better resourced groups in society and transnational corporations, rather than the most vulnerable ones."6 This promotion of the commercialization of agriculture reveals the zero-sum positions of powerful actors, endorsed by the very governments whose responsibility it is to protect the food rights of all its citizens, ultimately revealing the structural violence of the governmental-agricultural system.

The consequences of this system are various, potent and complex, and affect socioeconomic, food security and cultural spheres of concern. While GM technologies increase yields and therefore present the strong potential benefit in "those areas that are most dependent on agriculture, facing water shortages and impacts from climate change, and continued population growth," their advantages must be weighed against the threatening control and change of the dynamics of food production.<sup>7</sup> As IPR holders employ their legally enabled monopolies of GM

Challenges." (Reference Module in Food Science, 2016), 2.

<sup>&</sup>lt;sup>2</sup>Liza Grandia, "Sacred Maize Against a Legal Maze: The Diversity of Resistance to Guatemala's Monsanto Law." (Journal for the Study of Religion, Nature and Culture, 2017), 66.

<sup>&</sup>lt;sup>3</sup>Hans Morten Haugen and Thomas Bøhn, "Genetically Modified Food Worldwide IP

<sup>&</sup>lt;sup>4</sup>Haugen, Bøhn, 2.

<sup>&</sup>lt;sup>5</sup>Grandia, 66.

<sup>&</sup>lt;sup>6</sup>UN General Assembly, "Seed Policies and the Right to Food: Enhancing Agrobiodiversity and Encouraging Innovation", 2009), 3.

<sup>&</sup>lt;sup>7</sup>Haugen, Bøhn, 7.

seeds, farmers are easily subjugated, either financially or by strict control of their practices.<sup>8</sup> Firstly, dependency upon the products of a monopolizing corporation easily and frequently results in debt to that corporation, often confronted from an already financially unstable position.<sup>9</sup> Secondly, agricultural practices can be controlled by laws governing GMO usage that subjugate farmers to regulations that benefit IPR holders at the expense of the income and autonomy of those farmers. A prime example of this subjugation through regulation is the illegality of using Monsanto's Roundup Ready herbicides to improve the yield of seeds not directly bought from Monsanto.<sup>10</sup> This application of IPR often restricts farmers from long standing systems of seed saving and exchange, which could otherwise be relied upon as "source[s] of economic independence and resilience in the face of threats."<sup>11</sup> Finally, the patenting of seeds, by changing the dynamics of food production, changes the dynamics of food accessibility.

In response to these threats posed by GMO commercialization and corporate control, organizations at all levels of society, including intergovernmental organizations such as the United Nations (UN), have examined and prescribed how the food security and sovereignty rights of vulnerable groups must be prioritized and defended. A 2009 UN report on the interconnection of seed policy and food rights notes that legislation wields the potential to create obstacles to the necessary means of food production, threatening the livelihoods not only of farmers, but of all those whose livelihoods rely upon the resources they produce.<sup>12</sup> In the report, intended to advise governments on policy setting related to IPRs to GMOs, the UN proposed a framework for governments to protect food security and other human rights related to agriculture. The report implores the importance of prioritizing not just yield quantities through technological innovation, but an equality-driven prioritization of the "needs of the most marginalized groups, including in particular smallholders in developing countries."<sup>13</sup> As seed development is progressively corporatized and regulated, farmers become increasingly dependant upon these dictators of agricultural practice, risking both subsistence and sovereignty in their food and livelihood practices.<sup>14</sup> A 2013 investigation resulted in reports that "farmer's choice of seeds (varieties) are reduced in GMO adopting countries," revealing the inhibition of sovereignty, integrity to traditional farming practices and propagation of biodiversity through enforcement of IPR-GMO.<sup>15</sup> Dependence of farmers upon IPR holders can be the result either of purchase and intentional use of

- <sup>8</sup>UN, 2.
- <sup>9</sup>UN, 2.
- <sup>10</sup>Haugen, Bøhn, 4.
- <sup>11</sup>UN, 2. <sup>12</sup>UN, 4.
- <sup>13</sup>UN, 3.
- <sup>14</sup>UN, 4.

<sup>&</sup>lt;sup>15</sup>Haugen, Bøhn, 5.

GMOs or through unintended contamination of land with GMOs.<sup>16</sup> While the UN report emphasizes the importance of the farmers choice between the two systems (corporate vs traditional/local), it is important to note that subjugation to IPR laws can easily happen through contamination of fields by GM seeds as well as by choice. Ultimately, the threats posed by the commercialization of GMOs reveal the importance of protecting economic and food security and sovereignty rights as the dynamics of seed patenting evolve internationally.

The threats posed by agricultural commercialization to food security and sovereignty, have weighed heavily in Guatemala, where human rights are complexly and diversely connected the cultural, subsistence and economic importance of agricultural sovereignty. With half of the Guatemalan population involved in agriculture, changes to the agricultural system have the power to drastically influence the lives of citizens.<sup>17</sup> In 2014, the director of Guatemala's Science and Technology Research Institute stated that Guatemala contained 148 seed varieties that had been improved over time by human manipulation<sup>18</sup>, revealing the scope of plants and their related activities that would become subject to patenting if Guatemala were to adopt IPR laws. Of these, a plant of major concern is maize, a crop with immense diversity and importance in Guatemala. Guatemala is a country where the economic, cultural and food security concerns addressed above are of constant concern and are strongly connected to the production of maize. This connection is particularly relevant to the indigenous community, 73% of whom are classified by the International Work Group for Indigenous Affairs as poor, while 26% are classified as extremely poor.<sup>19</sup> Interconnected with the socioeconomic power of maize in this state is its cultural importance. Maize cultivation is related to the rituals, deities and religious duties of the Mayan people,<sup>20</sup> a group constituting approximately 60 percent of the Guatemalan population.<sup>21</sup> Understanding these deeply important dynamics connecting subsistence, agricultural cultivation, religion and culture gives further context to the threat posed by IPR-GMO that would control those whose livelihoods rely upon maize production or resources.

Contrast between the interests of Guatemalan agricultural sovereignty defenders and the interests of potential IPR holders is stark and characterized abuses of power that have sought to disempower the population and dispossess them of their rights to food security and sovereignty. As a country with "seemingly ideal political conditions for commercialization" of GM plants, Guatemala's defiance of

<sup>&</sup>lt;sup>16</sup>Grandia, 66.

<sup>&</sup>lt;sup>17</sup>Klepek, 313.

<sup>&</sup>lt;sup>18</sup>Grandia, 66.

<sup>&</sup>lt;sup>19</sup>Yishan Lea, "The Praxis of Cultural Sustainability: a Q'eqchi Maya Case of Cultural Autonomy and Resistance against the Monsanto Law in Guatemala." (Theory in Action, 2014), 49.
<sup>20</sup>Lea, 45.

<sup>&</sup>lt;sup>21</sup>Klepek, 311.

corporate control of agriculture faces many obstacles.<sup>22</sup> A paramount obstacle is the Central American Free Trade Agreement's (CAFTA) policy of supporting the patenting of seeds and the commercialization of biotechnology, increasing the adversity faced by Guatemala in resisting the enforcement of similar policies at a national level.<sup>23</sup> Another obstacle relates to the international commercial importance of maize. As one of the four plants to which GMO technology has been most applied and commercialized,<sup>24</sup> maize's commercial importance creates intense corporate desire and pressure to alter national policies to mirror those endorsed by CAFTA. Action by foreign actors, both governmental and corporate, presents another prominent category of obstacles. The US Department of Agriculture's Foreign Agricultural Service (USDA-FAS) and the Technical Commission have vigorously supported the commercialization of transgenic maize.<sup>25</sup> Notably, these influential positions have been established in official discussion from which "oppositional indigenous, peasant and environmental organizations have been systematically excluded".<sup>26</sup> Furthermore, in 2008 the notorious biotechnology company Monsanto acquired Latin America's largest maize seed company, Semillas Cristiani-Burkard, strengthening their position for the commercialization of maize.<sup>27</sup> The combined and often parallel desires and influence of corporations and governments, both Guatemalan and foreign, contributed to dynamics of the seed patenting conflict, strengthening the opposition faced by Guatemalan resistors of its legalization.

As a result of this intense and multifaceted conflict of interests, Guatemala portrays a long history of resistance to agricultural technology and corporate control, which run parallel to diverse forms of resistance that have characterized the dynamics between the Guatemalan state, civilians and foreign actors. Monumental factors of this formation were the 36-year civil war and the intense civil protests that characterized the war's period in the early 80's as well as 1996 Peace Accords that brought the country from conflict to a state of structurally violent negative peace that continues to the present. These accords were characterized by "coalition building among civil society organizations" and the "lower profile coordination" that they produced.<sup>28</sup> While the international funding that strengthened these connections has decreased with time, the legacy of these coalitions gave voice and power to civilian groups through their history and interconnection.<sup>29</sup> Ultimately, popular organization and resistance within Guatemala continue a legacy of action against injustice and corporate/governmental oppression and of civilian

- <sup>25</sup>Klepek, 311.
- <sup>26</sup>Klepek, 311.
- <sup>27</sup>Klepek, 310.

<sup>&</sup>lt;sup>22</sup>Klepek, 310.

<sup>&</sup>lt;sup>23</sup>Grandia, 66.

<sup>&</sup>lt;sup>24</sup>Haugen, Bøhn, 3.

<sup>&</sup>lt;sup>28</sup>Grandia, 59.

<sup>&</sup>lt;sup>29</sup>Grandia, 66-67.

organization, which would eventually enable the popular resistance of IPR-GMO legalization.

Tensions between the civilian and corporate interests linked to Guatemalan seed patenting culminated in 2014 with a decree to legalize seed patenting and the civilian activism that responded with powerful resistance and coordination. Officially promoted and passed as Decree #19-2014, the decree was popularly referred to as the "Monsanto Law" due to the corporation's interest in and promotion of the commercial benefits it would affect.<sup>30</sup> This corporate promotion took several forms. For one, Semillas Cristiani-Burkhard, recently acquired by Monsanto, threatened to move their headquarters from Guatemala to Honduras if the Government did not pass the law. Furthermore, the USDA-FAS and Trade commission propagated their stance on commercialization of transgenic maize by openly supporting Monsanto's vested interest in the law. Guatemalan governmental handling of the law's passing also revealed preferential manipulation. Congress's vote was strategically scheduled for June 13, when the media would inevitably be heavily focused on the World Cup. On this date, the law was discreetly passed by a vote with 81 in favour, outvoting the opposition by just one vote, and was set to commence on September 26 of the same year.<sup>31</sup> The process of passing this law did not fulfill its duty to consult indigenous groups, a failure that violated the rules of the International Labour Organization, ultimately propagating the zero-sum hierarchy of the elite by oppression of the country's subjugated majority.<sup>32</sup> At this time, the law made no statement on what species would be affected, a lack of clarity that would fuel the discontent of Guatemalans. It was however known that within ten years, the Monsanto Laws affect would reach all GM strains.<sup>33</sup> With governmental, corporate and multinational trade agreement powers acting in favour of corporate interests, the food security and sovereignty needs of the Guatemalan population were severely threatened by the potential implementation of the Monsanto Laws.

In reaction to the cultural, economic, food security and other threats posed by the passing of the Monsanto Law, the three-month period until its planned commencement was filled with powerful an diverse resistance enacted strategically and sophisticatedly by the Guatemalan people, resulting in the abolition of the Monsanto law and continuation of Guatemala's forbiddance of the patenting of crops. A monumental open letter was written on August 8 denouncing the shame and compromise exhibited by Congress's passing of the law. The resistance gained momentum and was given necessary strength by the coalition of diversely

<sup>&</sup>lt;sup>30</sup>Liza Grandia, 65. All information in this paragraph informing on the passing of Decree #19-2014 was collected from Liza Grandia unless otherwise cited.

<sup>&</sup>lt;sup>31</sup>Lea, 59.

<sup>&</sup>lt;sup>32</sup>Lea, 59.

<sup>&</sup>lt;sup>33</sup>Grandia, 65.

motivated groups.<sup>34</sup> The unification of these groups, despite the plurality of their motives or philosophies gave the movement the force, both of voice and of bodies necessary to fight such corporate and governmental force, continuing the legacy and power of civil society coalitions. Demonstrators used the obstruction of major highways to derail the economic systems of the country, a significant example of which was a massive group of approximately 120,000 protestors interrupting the Pan America Highway west of Guatemala City.<sup>35</sup> Governmental obstruction was also used. Physical obstructions interrupted urban areas, in one incidence blockading congress and utilizing humour and humiliation strategies by throwing tomatoes at senators.<sup>36</sup> The government was also technologically inhibited by the Guatemalan branch of the famous hacking group Anonymous, which influentially shut down several government sites.<sup>37</sup> The voices of Q'eqchi' indigenous mayors, many travelling from the agriculturally and culturally important western highland to urban areas, brought authority and unification to the movement.<sup>38</sup> The influence of all these movements relied heavily upon consistent media coverage, a tool that countered the state's usual repression and abuse of "indigenous, rural, and other marginalized people"<sup>39</sup> and their voices. The culmination of popular dissent and demonstration resulted in the abolition of the Monsanto law on September 5, 2014.<sup>40</sup> With astonishing resilience, organization, and strategy, and rooted in their cultural knowledge and rights to food security and sovereignty, the Guatemalan population defended these rights against the governmentally-backed corporate interest in oppression.

The civilian-powered abolition of the Monsanto Law reveals the possible force of a resilient, resistant population against transnational and governmental legal efforts. This resistance is achievable when bolstered by effective coordination and diversity of strategies to both debilitate the flows of the country and discredit the reputations and influence of politicians and corporations. As the Guatemalan case reveals, the evolving international dynamics of seed patenting are laden with complex, multifaceted consequences to food security and sovereignty, as identified at the civilian level as well as by parties such as the UN who seek to protect these rights. The potential effects of this legalization reveal the contrast between political-corporate interest in agricultural dominance – as revealed the partial policies of the

<sup>34</sup>Grandia, 60.

<sup>36</sup>Lea, 63.

<sup>&</sup>lt;sup>35</sup>Grandia, 57.

<sup>&</sup>lt;sup>37</sup>Grandia, 57.

<sup>&</sup>lt;sup>38</sup>Grandia, 57.

<sup>&</sup>lt;sup>39</sup>Grandia, 60.

<sup>&</sup>lt;sup>40</sup>Lea, 64.

USDA-FAS, CAFTA and Guatemalan government – and civilian organizations interested in protecting food security and sovereignty and related cultural and socioeconomic concerns. The culmination of this conflict in Guatemala mirrors an international conflict between the corporate interest in agricultural monopolization and the human right to food security and sovereignty, a dynamic that reveals the broadness of the importance of the Guatemalan population's resistance as a chapter of this international fight. Ultimately, the case of Guatemalan resistance of GM patenting and commercialization reveals both the sophisticated unification and coordination necessary for this form of resistance and the power of civilian organizations in protecting their communities and livelihoods.

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