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Maize as sovereignty: anti-GM activism in Mexico and Colombia

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Abstract

In this conference paper, I consider some of the strengths and weaknesses of the food sovereignty (FS) approach based on my research among anti-GM activists in Colombia and Mexico. Food sovereignty is taken up by anti-GM activists and rural producers in a way that is shaped by the particularities of place. Despite reproducing some of the problems of FS, I argue that these activists draw our attention to the specific issues and contexts of their region – particularly through their focus on maize-- and illustrate the usefulness of a food sovereignty approach. Their campaigns focus on maize as a symbol of sovereignty (at various scales) and campesino and indigenous ways of life, which activists believe are undermined by transgenic varieties of corn. In doing so, these campaigns situate the issue of GM corn imports, testing, and commercial cultivation within a broader critique of neoliberal globalization.

Introduction

“Without corn there is no country” (*Sin maíz, no hay país*) –Slogan from Mexican anti-GM network, *In Defense of Maize*

“We [the Zenú] are maize seeds, we are people of corn.” –statement posted on website of *Red Agroecologica del Caribe* (RECAR) Colombia (Nov 4, 2009, accessed June 14, 2012).

“For the indigenous communities of the Zenú, maize is a fundamental element, a pillar of our culture, our productive systems and the food sovereignty [*soberanía alimentaria*] of our people.

--*Zenú Declaration of their Territory as Transgenic Free*, Resguardo indígena Zenú Córdoba y Sucre, Colombia (October 7, 2005)

Colombian activists have organized a campaign against transgenic or genetically modified (GM) seeds and crops. Much like their counterparts in Mexico, activists use maize as a symbol of national sovereignty as well as campesino and indigenous livelihoods and cultures, which they believe are undermined by transgenic varieties of corn. Genetically modified organisms (GMOs) are “global objects of contention” (Müller 2006) that take on specific characteristics and meanings in particular times and places. In Latin America, activists see transgenic maize as an embodiment of contemporary imperialism or neoliberal globalization –a foreign threat to “sovereignty” in different senses (and scales like community, region and nation) including self-

governance, economic independence, cultural autonomy, and access to and control of native varieties¹ and genetic resources.

In this paper, I consider some of the strengths and weaknesses of the food sovereignty (FS) approach and political project based on my research among anti-GM activists in Colombia and Mexico.² Coined by the transnational peasant and farmers' rights group Via Campesina in the mid-1990s as part of their critique of neoliberal globalization³ and a narrowly defined concept of "food security" (which focuses not on the domestic production and control of food but making food accessible via imports), food sovereignty has been a work-in-progress, with many versions and definitions (Patel 2009). One of the key elements of FS has been its call for producers' control over their productive resources, such as land, water, seeds, and so on (Wittman, Desmarais and Wiebe 2010: 3). Another key element is its insistence on democratic participation and the ability of communities, regions, nations, and states to decide their own food and agrarian policies and regulations.

Both of these aspects of the food sovereignty approach have been taken up by anti-GM activists in Colombia and Mexico. In much of the global south, resistance to this technology tends to focus on the effects of GMOs on the environment and small-scale farmers' livelihoods, as well as the issue of property rights (Schurman 2003: 11). Some of the "most intense, sustained, and effective" campaigns against agricultural biotechnology have taken place in Western Europe, where early anti-GM activism successfully mobilized consumers around a different set of issues: food safety, ideas about preserving rural society, and ethical concerns about genetic engineering as "playing God" or defiling the natural boundaries between species (ibid: 9-10).

¹ I use the terms "native" and "traditional" varieties interchangeably and with some reservations. These are contrasting terms to "modern" or "improved" varieties. The terminology implies that "native" varieties are not the result of human intervention or improvement. However, their development does involve in-field plant breeding, albeit one very distinct from the scientific plant breeding tradition which emerged in sixteenth century Europe. I prefer the commonly used Spanish term "*criollo*" which means both "traditional" variety and creolized variety (an in-field mix of traditional and improved varieties).

² This paper is based on interviews with activists and indigenous leaders in Colombia (during the fall of 2011 to spring of 2012), ethnographic research in Mexico with maize producers, interviews with participants in the GM corn debates such as activists, biologists, and regulators (2000-2002, with extended visits over the next 6 years), and analysis of national media coverage in both countries on GMOs (particularly newspapers, activist list-serves and websites). In a forthcoming publication (Fitting 2014), I compare anti-GM campaigns in Mexico and Colombia, but without the focus on food sovereignty.

³ For the sake of brevity, I don't define neoliberal globalization here. I define the term elsewhere (2011). In many ways, activists discuss neoliberal globalization as a new form of imperialism or neo-colonialism.

Food sovereignty, however, can fall into agrarian populism (as an approach that is too homogenizing, romantic and ahistorical, see for example Bernstein 2013)⁴ and the problems of a “big tent” concept, which can be so broad it becomes inconsistent, even embracing oppositional agendas (Patel 2009). In this paper, I explore the ways food sovereignty is taken up by anti-GM activists and rural producers in Mexico and Colombia, and how this engagement is shaped by regional issues and contexts. I argue that despite reproducing some of the problems of FS, these activists draw our attention to the specific contexts and cultures of their region – particularly through their focus on maize-- and illustrate the usefulness of a food sovereignty approach. In other words, this paper is a critical appreciation of food sovereignty.

After spending years researching the debates over GM corn in Mexico, including research in a town of migrants and maize producers (petty commodity producers who self-identified as campesinos), I decided to interview seed activists while based in Colombia. I learned that maize became a strategic focus of the anti-GM campaign in Colombia based, in part, on lessons learned from the 2001 controversy in Mexico over gene flow between transgenic and native varieties of maize, which was seen by activists as the world’s first case of “genetic pollution” in a crop’s center of biological diversity and origin. Activists saw lessons in both the finding of transgenes in traditional cornfields of highland Oaxaca and elsewhere in Mexico, and the organized activist response to these findings. In Colombia, activists were concerned that “genetic pollution” could similarly occur in their country via corn imports (and later commercial production), and were motivated to use maize as a symbol and focal point for their own campaign after discussing these environmental risks and activist organizing strategies with Mexicans involved in the anti-GM “In Defense of Corn” campaign (discussed further below).

Activists mobilize narratives about the cultural and economic importance of traditional corn varieties (*criollos*)⁵, and in doing so highlight the specificity of place. In both Mexico and Colombia, maize is representative of the “nation” --be it the nation-state or an indigenous people and territory. Among the Colombian anti-GM activists and indigenous leaders I spoke to, maize represents indigeneity and indigenous culture. In Mexico maize is a symbol of indigeneity but also the nation, with its complex history of cultural and racial mixing.⁶ Activist slogans and

⁴ For example, FS often treats disparate types of rural labour as part of one unified (and ahistorical) category (overlooking class differences) and romanticizes small-scale farming as ecologically-friendly production (Bernstein 2013; also Bernstein 2009). I make a similar argument about the In Defense of Maize campaign in Mexico (Fitting 2006b, 2011).

⁵ *Criollo* is a common term in Spanish to refer to both “traditional” varieties (sometimes called “*maíz nativo*” or “native maize”) and creolized varieties (an in-field mix of traditional and improved varieties).

⁶ Maize has long been a symbol of indigenous and rural Mexico. In the late 19th century into the contemporary period, it became a symbol of mestizo (racially/culturally mixed) Mexico. Associations with the rural and indigenous have been positive and celebratory at times (among environmentalists and anti-GM activists today for instance); while at other moments, corn production has been portrayed by government officials and rural experts

statements such as “We are a people of corn” and “Without corn there is no country” emphasize maize as a place-specific way of life, food, agricultural crop, biological resource, and cultural practice. The crop invokes, at times, elements of shared culture across different scales of place ranging from the small rural community or region, the nation-state, to indigenous and rural Mesoamerica.

I begin by providing a brief discussion of the importance of corn in the two countries, some background information about the regulation of GMOs, and why activists have concerns about them. I then turn to how food sovereignty is used by activists and the ways Mexican activism and the controversy over transgenic corn influenced anti-GM activism in Colombia.

Cultures of corn

Maize is such a powerful symbol because of its multi-faceted economic, cultural, and political importance. Corn continues to be grown by mestizo and indigenous petty commodity producers (who often identify as *campesinos*) because it is a traditional crop and a mainstay of the rural diet, and it has multiple, flexible uses: if it is produced for household consumption, if there are no interested buyers, or the price of maize is too low, the crop is dried and eaten as grain in various corn-based foods and beverages (such as *tortillas* and *atole* in Mexico and *arepas* and *mazamorra* or *peto* in Colombia). These maize-based foods are regularly consumed in cities, but in the countryside every part of the corn plant is put to use. The shelled cobs are burned as fuel for fire, the leftover stalks are given to animals as feed, and in Mexico the dried husks are used to wrap tamales. When cash is needed in emergencies, the grain can be sold in small amounts (although often at a loss). Additionally, because traditional varieties of corn tend to be well adapted to local conditions and environments, corn is considered hardier than other cash crops.⁷

In Mexico, maize is cultivated on 8,000,000 hectares, most of which is rain-fed and involves non-industrial farming (Turrent Fernández, Wise and Garvey 2012: 7). The farming, milling, and cooking of maize is a key part of everyday life in the countryside. The crop is so central to the rural diet that a meal is considered incomplete without tortillas. In many indigenous regions of the Americas, maize seed retains a strong spiritual significance and is the focus of a variety of rituals involving the blessing of seed, celebrating the harvest, and so on. For many indigenous peoples, like the Zapotecs of Oaxaca, maize has a soul (González 2001).

as a backward, traditional, non-competitive crop. See Fitting, *The Struggle for Maize* (2011), Pilcher, *Que Vivan los Tamales!* (1998), and Warman, 2003 [1988] *Corn and Capitalism*.

⁷In my research in the Tehuacán Valley of Mexico, *campesinos* explained how their *criollo* corn was a resilient crop, which fare better than other crops particularly during periods of low rainfall (Fitting 2011: 203)

In rural Colombia, while maize is also regularly eaten in both rural and urban areas, generally speaking it is not required to complete a meal. It is grown on approximately 460,000 hectares (in 2010), largely along the Atlantic Coast in the department of Córdoba, followed by Sucre and Cesar, but also in the interior departments of Tolima, Meta, Valle and Huila (Fenalce 2011). While maize represents a way of life for those indigenous groups like the Zenú who grow the crop, it is not central to the idea of the nation as a whole –what it means to be Colombian—to the extent it is in Mexico.

A neoliberal food regime

The commercial planting of biotech crops around the globe went from 1.7 million hectares in 1996 to 160 million hectares in 2011 (ISAAA 2011). Food scholars have suggested that genetic engineering and its regulation are central to an emergent neoliberal food regime (Pechlaner and Otero 2008) – or the institutional structures, norms and practices of food trade, governance and political economy (Friedmann 1987, McMichael 2009). This regime is sometimes discussed as a feature of a contemporary capitalism –or biocapitalism—which involves the harnessing and management of biological processes and resources in order to generate profit. Transgenic seed is often accompanied by intellectual property rights (IPRs) which require users to pay a licensing fee in addition to the initial seed purchase. IPR runs counter to the widespread practice of agriculturalists to save and exchange seed for replanting, and provides another way to overcome the free reproduction of seed, or seed’s “biological barrier to commodification” (Kloppenburg 1988). The commercialization of seed, including IPRs, contributes to “accumulation by dispossession,” or the accumulation of capital by undermining a group’s access and control over the resources that it needs to maintain its livelihood (Harvey 2003, 147–48).

Another feature of the current food regime worth mentioning here is how trade agreements and the World Trade Organization protect farm subsidies in the global north, while countries from the global south import staple foods that they themselves produce. Both Mexico and Colombia have seen rising corn imports in recent years for use as animal feed, food, and industrial purposes. In Mexico imports reach 8 to 9 million metric tons per year (or higher in years of production shortfalls).⁸ However, with the right policies, Mexico could once again be self-sufficient in maize production (Turrent Fernández, Alvadeño Salazar, Moreno Dahme 1997; Turrent Fernández, Wise and Garvey 2012). In Colombia, imports have increased since the 1990s, reaching 3.3 million metric tons in 2010, although a new government program hopes to reduce imports (Fenalce 2011: 4).

⁸ This rose in 2011 to 12 million tons due to production shortfalls in Mexico. Most imports are used for animal feed or industrial uses. Recent figures are from Rodríguez 2011. Mexico imported corn in years previous to the neoliberal period of austerity measures in the 1980s and trade liberalization of the 1990s, but not at current levels.

As Pechlaner and Otero importantly point out, “despite prevailing trends, sufficient local resistance to [agricultural bio-] technology could modify or even derail, the technology’s role in individual nations, and accordingly, in the unfolding food regime as a whole.” (2008: 352). Indeed, many anti-GM activists act as policy watchdogs, and in places like Mexico have been quite successful in raising public concern around the import, testing and commercial production of transgenic maize.

Regulation

Scientists and government regulators began to debate the risks and benefits of transgenic maize in Mexico in the mid-1990s with the impending release of GM corn in the United States. The issue was also discussed at the Mexican Ministry of Agriculture in the late 1980s, when it started to grant permits for scientific field trials of GM crops (in 1988), advised by an ad hoc committee consisting of scientists from various disciplines and government agencies. This later became the National Agricultural Biosafety Committee (CNBA) in 1992. In a period of ten years, Mexico approved the commercial release of over 31 agricultural GMOs for human consumption, including alfalfa, canola, cotton, tomatoes, soybean, potatoes and maize (Pechlaner and Otero 2008). In late 1998, the CNBA --now the Specialized Agricultural Subcommittee of the Inter-Ministerial Commission on Biosafety (CIBIOGEM)-- imposed a de facto moratorium on GM corn trials because the traits most commonly tested were not of any particular benefit to Mexico (Alvarez-Morales 1999: 91) and the committee had concerns about the possibility of transgenic corn hybridizing with or displacing native varieties and teosinte, a wild relative of maize (Serratos 1996). Although the moratorium on the cultivation and field trial testing of transgenic maize had been in place at the time, transgenic maize most likely made its way into the country through US imports.⁹

In Colombia, the regulation of GMOs began in the late 1990s, under Decree 4525, and was modified in 2005, which established three technical committees (on health, agriculture, and the environment) to evaluate GMOs. The National Agricultural Institute (ICA), a branch of the Ministry of Agriculture and Development, is responsible for “ensuring the quality of agricultural inputs and seeds used in Colombia, while regulating and controlling the use of living modified organisms by genetic engineering to agriculture.”¹⁰ The first GMO approved in Colombia was a blue carnation in 2000. The following year it was cultivated in greenhouses for export. The second crop to be approved for commercial production was cotton in 2003. Transgenic corn was approved (with pest resistance and herbicide tolerance) for controlled plots in 2007,

⁹ On a much smaller scale, corn may also have been introduced by Mexican migrants returning home from the United States and curious to try out a new variety in their own fields.

¹⁰ From the ICA website (accessed August 15, 2012) <http://www.ica.gov.co/EI-ICA.aspx>

followed by an approval for the commercial production of soybeans in late 2010. As in Mexico, approval is given on a case by case basis. The cultivation of maize requires a buffer zone or “refuge” between the plot and any other crops, which is monitored by ICA.

Corn controversy

The finding of transgenic maize in Mexico garnered considerable media and activist attention around the globe as the world’s first case of “genetic pollution” in a crop’s center of biodiversity and origin. In 2001, Ignacio Chapela and David Quist published the results of their study that three different transgenic DNA sequences were found in *criollo* corn from the highlands of Oaxaca, Mexico.¹¹ The likely source of these transgenic DNA sequences was corn imported from the United States, where at the time 25 percent of the crop was transgenic and unlabeled as such (USDA 2012). Today 88 percent of US maize is transgenic (ibid). Scientists and activists found similar evidence in other parts of Mexico, including the government’s corn supply (Ezcurra, Ortiz, and Soberón 2002; INE-CONABIO 2002).

This finding of GM corn growing in rural Mexico became a *cause célèbre* for international environmental NGOs like Greenpeace, seed and food groups such as the small international non-profit GRAIN, and Via Campesina. Different positions and opinions about the controversy were articulated through channels such as activist organized events like press conferences, rallies, and seed exchanges, academic and scientific research papers, government debates before Congress, government and activist working groups and conferences, and in the national and international media, particularly newspapers and activist, NGO and agro-biotechnology focused websites.¹²

The unintentional gene flow between transgenic corn and native varieties in Mexico was discussed by activists as contamination, a kind of genetic pollution or trespassing of unwanted living material that has, or could have, negative environmental impacts (Cleveland, Soleri, and Aragon 2003; Soleri, Cleveland, Aragón, Fuentes, Ríos, and Sweeney 2005). Such impacts include the growth of herbicide tolerance and pest resistance, unforeseen negative consequences for non-target organisms, and the loss of traditional seed varieties --which is also possible with non-transgenic, breeder-improved or “modern” varieties. In addition to the environmental impact of transgenic seeds and crops, activists in both Mexico and Colombia raise concerns about the effect of GMOs on cultural autonomy and practices related to food and agriculture (particularly in the case of maize) and the commodification of the seed, which

¹¹ The *Bacillus thuringiensis* or Bt toxin gene, the cauliflower mosaic virus CaMV gene promoter, and the nopaline synthase or NOS terminator sequence (Chapela and Quist 2001; Quist and Chapela 2002).

¹² See the Mexican In Defense of Maize (endefensadelmaiz.net) and the Argentina-based Biodiversity in Latin America (biodiversidadla.org) for key activist websites. For posts in support of agricultural biotechnology see, www.agrobiomexico.org.mx or the international site at www.agrobioworld.org

has economic and political ramifications for farmer livelihoods. Not only are agriculturalists facing more expensive inputs or costs (at a time when state financial and technical support for such farmers has been cut) but they have been largely excluded from regulatory decisions and frameworks for GMOs.¹³

Anthropologists have explored how GMOs have come to represent neoliberal globalization or US economic and political dominance which threatens regional or national sovereignty in places like Mexico, France and Costa Rica, (Fitting 2006b, 2011, Heller 2002, Pearson 2009). Among Mexican and Colombian activists, transgenic corn in particular is seen as a foreign threat. In my interview with a Pijao community leader from Tolima, Colombia he explained what he saw as the problem with transgenic corn by telling me that his community wants to protect *criollos* from seed that both “come[s] from outside our culture” and “runs counter” to it (Interview, February 2012, Bogotá).

Although activists in both Mexico and Colombia focus their campaigns on corn, narratives about maize as a way of life threatened by transgenic varieties resonate differently in these two countries. In Colombia, there has been very little public debate weighing the benefits and problems of genetically engineered crops and food, however, there are now several indigenous territories (*resguardos*)¹⁴ that have been declared transgenic free (*territorios libres de transgénicos*). Activists admit that these are isolated victories and there is not much discussion or support for their campaign on a more general level. In contrast, in Mexico, the mobilization of activists around the import and regulation of transgenic corn and the controversial finding of such maize growing in in the countryside generated enormous media attention at home and abroad.

In Defense of Maize: Mexican anti-GM activism

The anti-GM campaign and network, In Defense of Maize, was established in 2002 in response to the scandal over transgenic corn. The network consists of over 300 environmental, food activist, peasant and indigenous rights organizations, most of which are Mexican, such as the Environmental Studies Group (GEA), the National Association of Rural Commercialization Enterprises (ANEC), National Support Center for Indigenous Missions (CENAMI), the Union of

¹³ Other issues raised are food safety and a call to adhere to the precautionary principle in biosafety assessment, which states that the absence of scientific knowledge about a risk should not hinder actions to reduce a risk (NRC 2002: 64). This principle has been employed in various international treaties and declarations like the Cartagena Protocol on Biosafety.

¹⁴ *Resguardos* are indigenous territories based on communal landholdings. Under the Colombian Constitution of 1991, indigenous peoples were given the right to manage the political and administrative affairs of their territories. There are currently 710 legally recognized *resguardos* located in 27 departments and 228 municipalities (ABColombia 2010:16).

Concerned Scientists Committed to Society (UCCS) and Seeds of Life (Fundación Semillas de Vida). Mexican members of Via Campesina have been active in the network as well as two transnational organizations with offices in Mexico City, Greenpeace Mexico and the Action Group on the Environment, Technology and Concentration (ETC Group). Numerous academics, researchers, and scientists unaffiliated with an activist organization or NGO are also involved. Members have initiated and participated in an enormous variety of projects that range from running media campaigns, promoting *criollo* seed exchanges and fairs, establishing seed banks, hosting workshops for campesinos on seed saving, organizing a network of GM free tortillas, testing for transgenes in the field, participating in government consultations on biodiversity and biosafety (for example, in the making of the Biosafety Law of 2005) to conducting various types of research (environmental, legal, socio-cultural, etc.) on the impacts of transgenic varieties.

Elsewhere I critique In Defense of Maize for representing peasants as a unified and ahistorical category of experience and identity, romanticizing indigenous and campesino communities as more egalitarian (overlooking class and gender differences within and between communities) and their agriculture as eco-friendly, and suggesting they are beyond capitalism (as part of the natural economy rather than petty commodity producers today) --representations that, ironically, share similarities with those forwarded by neoliberal government officials (see Fitting 2006b and 2011).

However, I also commend In Defense of Maize on several grounds: 1) the campaign highlights a call for more direct democratic involvement, particularly of disenfranchised rural actors, in policy making and regulation; 2) it offers a multi-dimensional critique of GMOs as part of a larger discussion of neoliberal capitalism and governance; 3) its focus on maize as a symbol of Mexican sovereignty threatened by neoliberal globalization not only foregrounds the multifaceted significance of maize in Mexico –where corn is much more than a commodity-- it connects disparate NGOs and activists together under a wide umbrella (part of the appeal of “big tent concepts”); and finally, 4) the campaign promotes concrete policy and legislative changes in addition to their more abstract demands. A couple of these points warrant a more detailed exploration.

From its inception at a forum in Mexico City in 2002, the In Defense of Maize campaign has employed the concept of “food sovereignty” in its discussions. The concept even appears in the forum’s conclusions:¹⁵ participants call on the Mexican government “to recognize the principle

¹⁵ Conclusions from the Forum can be found at: <http://www.ceccam.org.mx/ConclusionesDefensa.htm>

Food sovereignty is also discussed in the following sentence from the Conclusions: “Agrarian and commercial policies not only threaten the national production of maize that constitutes the core of the peasant economy and organization, but also food sovereignty.” My translation.

of food sovereignty and give priority to the consumption of Mexican corn” rather than relying on imports. The conclusions also state, “We demand that food, agricultural and environmental policies be sustainable, fair, and sovereign, developed in collaboration with civil society.”¹⁶ At this 2002 forum, a multidimensional approach to GMOs was evident as participants not only discussed the environmental risks of transgenic maize but linked the import, testing and cultivation of GM corn to neoliberal policies that undermine the livelihoods of small-scale farmers such as trade liberalization, cuts to rural subsidies, the further commercialization of the seed, the deepening of an agro-industrial model for agriculture, and a lack of political transparency. For example, an activist from the National Support Center for Indigenous Missions (CENAMI)¹⁷ got up to the microphone to explain how the government views small-scale corn producers: “[the government perspective is: We don’t need peasants, nor do we need indigenous communities. We need people that can work in the *maquiladoras* [factories]. This is the solution that the neoliberal government wants to propose to us.”

At the various workshops and forums I attended over the years organized by In Defense of Maize groups, I heard environmentalists, and campesino and indigenous producers and activists discuss GMOs as part of a broader critique of neoliberal globalization and as an issue of “sovereignty” -- the ability to determine one’s own economic, political and cultural path at the community, regional and national levels. Framing GMOs in this way is an example of what Holt-Giménez and Shattuck (2011) call a “radical” trend in food movements that seek deep structural changes to the food and agricultural system.

By 2007, In Defense of Maize forum participants explicitly define what they mean by food sovereignty, highlighting autonomy and self-determination in political, cultural and economic senses (see box below).

Declaration of the Forum for the Defense of Maize and Food Sovereignty September 13, 2007

published in *La Contaminación Transgénica del Maíz en México*, 2007, GEA, p. 120

For us, food sovereignty:

--Signifies the right of “los pueblos” (peoples) to self-determination

--is part of the defense of culture of our peoples (los pueblos), the defense of land and territory

¹⁶ “Demandamos que las políticas ambientales, agrícolas y alimentarias sean sustentables, justas y soberanas, que se elaboren junto con la sociedad civil en base a la autodeterminación de los pueblos sobre sus recursos naturales, el respeto a los derechos indígenas y campesinos, la conservación de la biodiversidad y el principio de soberanía alimentaria.”

¹⁷ CENAMI is a non-profit based in Mexico City that works to support indigenous pastors and churches in various regions of the country. Beyond this, their mission includes supporting indigenous projects to defend and promote indigenous culture, territory and rights. See www.cenami.org

--is a fundamental element in guaranteeing political sovereignty: a people that cannot produce its own food is highly vulnerable to dependency and subjugation. For this reason, food sovereignty is not only a concern for peasants and indigenous peoples, but for all Mexicans.

--is the right of communities, peoples, and nations to determine their own policies on agriculture, food, land, the economy, and the environment necessary to guarantee dietary staples for its population, without such policies being imposed upon them by corporations and powerful countries.

--is the required legislation and policy for agro-food production to be supplied by national producers so that they produce enough food, with priority given to peasants and small producers based on forms of environmentally sustainable production. This implies the right of peasants to land, water, seed, and natural resources.

--is to enforce the human right to food, which implies access to healthy food in the amount and quality appropriate to cultural preferences

The 2007 declaration (in box above) argues that “food sovereignty is not only a concern for peasants and indigenous peoples, but for all Mexicans.” This is one of many instances where the campaign frames the issue of transgenic corn and the plight of rural Mexicans in broad terms –in the hopes of resonating beyond activist circles, with urban consumers and people outside of Mexico. As Raj Patel points out, however, as a “big tent” concept meant to include disparate groups and agendas, in its extreme, food sovereignty excludes almost no one, making for strange bedfellows with competing agendas – for example, Via Campesina’s Nyéléni declaration includes “those who produce, distribute and consume food” (Patel 2009, 666).

With their multidimensional approach to GMOs, that includes but goes beyond the question of environmental risks, In Defense of Maize forges and deepens connections between environmentalists, anti-neoliberal activists, peasant and indigenous groups, and concerned scientists and academics both within and across national borders. Activists also forward a more inclusive definition of who is considered an expert on Mexican corn: they suggest that the appropriate experts for evaluating potential harm are *not only* biotechnologists and other scientists, but consumers and Mexico’s large number of petty commodity corn producers (Fitting 2006 b; 2011). As a symbol of place, maize represents numerous struggles that Mexico --particularly rural Mexico-- faces under neoliberal reforms and the expansion of agribusiness.

This shift from a focus on the risks of gene flow to a broader debate does not mean that activists discredit or disparage scientific studies or the opinion of scientists. In fact, they often use scientific studies about gene flow to advance their cause, and some of the most public figures in the anti-GM network are now scientists, such as members of the Union of Concerned Scientists Committed to Society.

In my interviews, scientists who were involved in the network emphasized that they were not against agricultural biotechnology *per se*, but rather against the testing and cultivation of transgenic corn in Mexico, particularly since the traits of GM corn (which was a Bt variety initially) are of little use there. As one maize scientist explained during the height of the controversy: “Promoters of biotech say how wonderful it is that Bt corn was found in Oaxaca because it’s going to help peasants. But this is incorrect because in Mexico we don’t have the pests that Bt was designed to attack.” (Interview, Dr. José Antonio Serratos, January 28, 2002).

In Defense of Maize participants argue that transgenic maize should not be imported, tested or cultivated in Mexico because it is the crop’s center of biodiversity and domestication. But beyond the environmental argument about the possible effects of GMOs on *criollos* (native and creolized varieties), participants ask us to consider the specific history and culture of Mexico: they contend that transgenic maize is unsuitable, and a threat to, rural livelihoods and cultures because of the multifaceted and profound meaning of *criollo* corn.

Ana de Ita, from the Center for Studies of Rural Change (CECCAM)¹⁸ is an activist based in Mexico City who was involved in the network right from the beginning. In an interview she explained what she saw as the successes of the anti-GM campaign:

We [CECCAM] were involved in organizing workshops, making links between different groups, testing corn for evidence of transgenes, outreach to rural communities. I think one of the successes of In Defense of Maize campaign [and network] is the level of indigenous involvement. Communities wanted to know how to protect their seed. Another success is the pressure we put on DICONSA [a government agency that distributes food to rural communities] to stop buying corn imports that included transgenic corn. [...] Another success is the level of public awareness on the issue. Not to the extent that we wanted, but still the issue is out there.” (July 24, 2006).

Despite the efforts of anti-GM activists, the moratorium on field trials of transgenic corn ended in 2009. Since the end of the moratorium, six permits have been granted to corporations to grow pilot plots of transgenic corn in northern Mexico (2 in Sinaloa, 4 in Tamaulipas). Corporations and research institutes are required to first plant experimental plots on less than 1 hectare and destroy all the corn produced. They are then allowed to grow pilot plots of 10

¹⁸ CECCAM is a Mexican non-profit founded in 1992. It is a link (*punto de enlace*) for exchanging information and research. It services *campesinos* and indigenous groups from distinct backgrounds in sharing experiences and challenges in confronting rural modernization. See ceccam.org

hectares if their experimental plots show they did not harm the environment or contaminate native varieties. The next phase is commercial planting.

As of mid-2013, the commercial cultivation of transgenic maize is still prohibited. However, there have been reports of farmers growing transgenic maize illegally in the north for several years (Center for Latin American and Border Studies 2009). And Monsanto, Dow Chemical, and DuPont's Pioneer seed unit have all applied to enlarge their small experimental plots of transgenic corn, with the goal of planting the first commercial plots in northern Mexico shortly (Reuters, Sept 19, 2011). Monsanto and Pioneer have filed applications to plant 1.4 million hectares in Sinaloa and over 1 million hectares in Tamaulipas (GRAIN 2012: 3). Mexican activists and their international supporters have been intensifying their efforts to garner support for a government rejection of these corporate applications to grow transgenic corn. Oaxacan farmers' organizations have declared 2013 the year of resistance to transgenic corn. Corn continues to dominate the debates over biotechnology in Mexico. Other transgenic crops like cotton have been grown in the country without the same level of public attention or concern.

While Mexican activists organize protests, press conferences and letters of protest calling for the rejection of commercial production of transgenic maize, Colombia had a record year for the planting of transgenic corn, reaching close to 50,000 hectares during the first half of 2012 (Birkett 2012).

Semillas de Identidad: anti-GM activism in Colombia

"More than 300 hundred leaders and Zenú indigenous authorities of 177 town councils (*cabildos*) [...] the Association of Artisans of San Andrés de Sotavento and the Agroecology Network of the Caribbean (Recar); and the educational institutions, teachers and students, of the Zenú *resguardo* met on October 6 and 7, 2005 in San Andrés Sotavento, and made the following resolutions:

Taking into consideration that:

[...] Colombia, especially in the Caribbean, is an important center of biological diversity for maize and other plants, where an enormous diversity of corn races and *criollos* exist, the fruit of the collective labour of thousands of generations of agriculturalists, who have developed these varieties adapted to different regions and cultural, socio-economic and agricultural conditions. [...] **For the indigenous communities of the Zenú, maize is a fundamental element, a pillar of our culture, our productive systems and the food sovereignty [*soberanía alimentaría*] of our people.** Based on the above considerations, we declare:

‘Our indigenous *resguardo*, Córdoba and Sucre, to be Territories Free of Transgenics’”

--Zenú Declaration of their Territory as Transgenic Free, Resguardo indígena Zenú Córdoba y Sucre, Colombia (October 7, 2005; my translation and bold emphasis)

The first indigenous *resguardo* in Colombia to declare itself a Transgenic Free Territory (TFT) was San Andrés de Sotavento, of the northern departments of Córdoba and Sucre in 2005. This Zenú territory is also home to the Caribbean Agroecology Network (Red Agroecológica del Caribe or RECAR), which has been the driving force behind the national “Seeds of Identity” campaign to promote the conservation and exchange of *criollo* varieties of seed in Colombia. Initiated in 2002, the Campaign is the work of RECAR, the Bogotá office of SwissAid, and the Colombian NGO Grupo Semillas (the Seed Group). These non-profits are the most active groups in Colombia who challenge the cultivation of GMOs, the privatization and commercialization of seed, and promote saving and exchanging *criollo* varieties. In their declaration (excerpted above), the Zenú point to Colombia as a center of biological diversity of maize and its cultural, alimentary, and socio-economic importance for the Zenú. They also contend that the import of transgenic maize and other products from the United States generate “negative impacts on our seeds, our agriculture and our food sovereignty.” Since the declaration, there have been at least five other declared TFTs: in the *resguardo* of Cañamomo y Lomapieta in Caldas; the Municipio de Natagaima in the Resguardo Indígena de Palma Alta, Tolima; in a *resguardo* of la Guajira; and two in Huila (Interview, Mauricio García A., April 12, 2012; Interview with Orlando Pamo, February 11, 2012).

The Zenú began the process of declaring their *resguardo* --a territory of approximately 20,000 hectares¹⁹-- “free of transgenics” more than a decade ago when they started an initiative to recuperate *criollos*, particularly maize. They also worked on developing the Seeds of Identity campaign with the Bogotá office of SwissAid. In this campaign, native varieties of maize are a marker of place --indigenous, rural Colombia. Representatives of the Zenú see corn as embodying the essence of their way of life. The 2005 TFT Declaration states “We conserve and cultivate twenty-five *criollo* varieties of corn, and possess an ample culinary culture based on this sacred food; for these reasons, we consider ourselves ‘children of corn.’” Activist publications similarly portray maize as the heart of indigenous Colombia, representative of indigenous culture, peoples, and biological/productive resources (see RECAR website; Grupo Semillas’ magazine *Semillas* (no. 22/23) from November 2004).

¹⁹ The Zenú have colonial title to approximately 67,000 hectares of land but they have recuperated only 20,000 hectares of non-contiguous parcels, located in municipalities such as Córdoba and Sucre.

In their 2005 Declaration against GMOs, the Zenú discuss food sovereignty as a goal that requires the political will of leaders at all levels. They also state that since 1990, the Zenú have begun to recuperate *criollo* seed in an effort to strengthen their food sovereignty, and to slow the advance of the agroindustrial model of production.²⁰ Here we again see a critique of GMOs linked to a rejection of the agro-industry and the neoliberal model of production.

Similar to how Mexican activists portray maize as sovereignty (at various levels or scales), the Zenú declaration states that maize is a “pillar” of food sovereignty, in this case, for their local indigenous communities: “For the indigenous communities of the Zenú, maize is a fundamental element, a pillar of our culture, our productive systems and the food sovereignty of our people.”

By speaking about their experiences and strategies in declaring their territory transgenic free at regional and national indigenous congresses, the Zenú have provided an example to other indigenous communities in Colombia. For example, when I asked Efren who was involved in declaring his *resguardo* in Caldas a TFT, why it was important to make this declaration, he explained:

Because of the loss of our seed, the introduction of technical packages [of improved seed], and the lack of respect for our traditions and regulations (*normas*) we decided to shut the door to this seed. In 2007 or so, the mayor’s office received a proposal for technical extension work [from a seed company] to establish some parcels of land with transgenic soybeans. This was taking advantage of indigenous peoples’ need. The packet included everything for the producer [initially at no charge...] The first TFT was in Córdoba [and Sucre] and we talked to the Zenú about their experience. We had heard about their declaration through the indigenous network and congress. The campaign Seeds of Identity also helped us a lot. It was a difficult process [because our mayor was initially against the idea]. It generated a discussion in the community about what is a gene, what is improved seed. And when it understood, the community helped with the process [of declaring a TFT]. We started to promote seed exchanges, and at all of our meetings we started to put aside an hour to

²⁰ “La soberanía alimentaria es, para el pueblo zenú, una meta; para ello es necesario contar con la voluntad política de sus líderes, en todos los niveles, local, municipal y regional, mediante la implementación de acciones [...] a principios de 1990 el pueblo zenú inició un proceso de recuperación de las semillas criollas para fortalecer la soberanía alimentaria, y controlar el avance de los modelos de producción agroindustrial.” (*Zenú Declaration 2005* 14; 17)

exchange seed. According to our internal norm of 2009, the use of improved seed [including GM varieties] is now prohibited. (Interview, February 2012).

In addition to mentioning how his community heard about the first TFT in Córdoba, among the Zenú, Efren points to concerns about the displacement of traditional seed, and the attempts of seed companies to “take advantage of indigenous necessity” by offering technical packages of transgenic soy at no or low cost. Although producers from Efren’s home in Caldas first learned about GMOs through offers of transgenic soy, anti-GM activists from indigenous *resguardos* like his, and in Bogota, have focused on corn as the key crop in their campaigns. For indigenous groups, maize is a much more traditionally meaningful crop than soy, and as I discuss below, several pivotal activists in the anti-GM campaign in Colombia looked to the Mexican campaign for information and strategy.

The Zenú TFT declaration in 2005 had an impact beyond setting an example for other indigenous groups. Because their declaration preceded any government approval of transgenic corn, when ICA did decide to approve “controlled plots” of Monsanto and Dupont varieties of transgenic corn in 2007, they took the declaration into consideration: ICA approved GM maize under the condition that it would not be grown in indigenous *resguardos* and must be grown with a minimum distance of 300 meters from any *resguardo*. However, activists are concerned about the growth in area of these controlled plots: from 6,000 hectares in 2007 to 50,000 in the first half of 2012 (Interview Germán Vélez, December 15, 2011, Birkett 2012).

Corn: as a transnational activist strategy

“Corn is cultivated by indigenous peoples, and in reality by most rural peoples [...] It is the most traditional crop. [...] corn is, let’s say, because of its reproductive cycle, its cultural importance, for the foods made from it, for all of these factors plus the threat of transgenic seeds, **it became a strategic crop.**” Mauricio García A. SwissAid, Bogotá, April 27, 2012 (translation and emphasis mine)

As Mauricio from SwissAid Colombia explains above, maize “became a strategic crop” in the Colombian campaign against transgenic agriculture because of its cultural importance as a key food and crop. Following the height of the controversy over transgenic corn in Mexico, Mauricio along with Edenia Montañó, a leader from RECAR, and indigenous leaders from the Zenú territory travelled to Mexico to learn about the experience of indigenous peoples with the issue, through the work of a non-governmental social justice organization called the National Support Center for Indigenous Missions (CENAMI). The “contamination” of corn and anti-GM campaign in Mexico struck a chord with activists and indigenous leaders in Colombia, where

maize is also central to rural livelihoods. Mexican activists tell a compelling story about why transgenic corn is inappropriate technology, and too great a risk for Mexico.

Transnational advocacy and activist networks exchange information and strategies in an effort to influence policy at the international level as well as in specific countries, and to try and “transform the terms and nature of the debate.” (Keck and Sikkink 1999: 93). Often these connections are made between groups from the global south and north (ibid). While anti-GM organizing in Mexico, and to a lesser extent, Colombia, has involved many organizations based in the global north (such as the ETC Group, Greenpeace, SwissAid), the case of transgenic corn raises the issue of how information is shared among activists from the global south. Colombian and Mexican activists discussed and shared perspectives and studies on the perceived risks associated with transgenic crops, details about their regulation in the two countries and internationally, and strategies for raising awareness and organizing campaigns. The Mexican focus on maize as a symbol of place –its people, culture, and biological resources --clearly resonated with activists in Colombia. In turn, the Zenú declaration of a TFT provided an example to other Colombian indigenous groups.

Following Keck and Sikkink’s terms, there are two kinds of politics relevant to understanding the debates over transgenic maize in both countries under discussion. The first is “information politics” or when activist groups try and influence public debate in the media both at home and abroad by moving “politically usable information quickly and credibly to where it will have the most impact.” And “symbolic politics” or the “ability to call upon symbols, actions or stories that make sense of the situation or claim for an audience that is frequently far away [..].” (1999: 95).

The cultural and symbolic significance of maize in parts of Colombia, much like in Mexico, is deeply connected to the everyday experience and livelihood struggles of rural peoples. Activists point out that Colombia is home to a considerable diversity of *criollo* varieties, and that these varieties are put at risk by policies which undermine small-scale agricultural production and the free exchange of seed, and foster import dependency. Colombia went from being self-sufficient in maize in the 1990s to importing some 85 percent of corn for domestic consumption in 2010²¹; much of the imported corn is transgenic. Mexican activists had also highlighted this connection between GMOs, trade liberalization and increasing corn imports in their country based on their experience with the North American Free Trade Agreement (Fitting 2006a). When activist groups use international contacts and networks that reach across regions and countries to advance their cause, this can have what Keck and Sikkink call a “boomerang

²¹ Germán Vélez, Interview, December 15, 2011.

pattern” or effect; these campaigns and contacts can turn around and put pressure on those national governments who had been previously unresponsive to the group’s cause.

On the one hand, the Colombian anti-GM campaign has had an impact on regulation –as mentioned above ICA qualified its approval of transgenic corn with the stipulation that its cultivation must be accompanied by a buffer zone, and it is prohibited in *resguardos*. On the other hand, in interviews, activists and a representative from the pro-biotechnology advocacy group (the Colombian office of AgroBIO) confirmed my observation that the issue of GMOs is not discussed or debated much in public forums. Media coverage in Colombia on agricultural biotechnology is sparse and often positive (with the exception of activist publications and websites).

No doubt one factor in this sparse media coverage and public debate over GMOs is the level of concern and coverage about the on-going armed conflict in rural Colombia. In comparison to the effects of armed conflict, the issue of GMO cultivation can seem minor; it is a challenge for anti-GM activists to generate support for their cause outside of activist circles or indigenous *resguardos*. A form of “biohegemony” may also be at work in which “the benefits and value of agricultural biotechnology acquire the status of common sense and go largely unquestioned” (Newell 2009: 38).²² Additionally, as I have suggested above, the focus on maize as an anti-GM strategy may not speak to Colombians beyond activist, indigenous and campesino communities to the extent it does in Mexico. GMOs have generated more critical press coverage and mobilizations in Mexico than in Colombia, where images of Mexico as a people and culture of corn resonate beyond activist networks, and Mexican activists regularly publish research and opinion pieces in national newspapers (notably, but not restricted to the leftist *La Jornada*).

The comparison between Mexico and Colombia is interesting not only because it shows how key symbols and activist strategies can resonate to differing degrees in different places, but also because ideas and networks around food justice are built between groups from the global

²² Mexican anti-GM activists have been successful in challenging the alignments between the biotech industry and the government, along with their discursive strategies promoting genetically engineered crops – or what Peter Newell (2009) has called, in the Argentine case, “biohegemony.” Based on his research in Argentina -- where the benefits of GMOs are largely taken for granted in the media, with relatively little activist campaigning around the issue—Newell argues that a form of “biohegemony” is at work, or “an alignment of material, institutional and discursive power which sustains a coalition of forces [that] benefit from the prevailing model of agricultural development.” (p. 38). In Mexico, I argue, *In Defense of Maize* challenges the institutional arrangements and discourses that foment agricultural biotechnology by suggesting that the regulation of transgenic corn must be contextualized in relation to the broader challenges facing campesinos and the Mexican countryside under neoliberal globalization. (see Fitting, 2012)

south rather than just between global north and south.²³ “Globalization from below” refers to the transnational “linking of knowledge and political action in hundreds of civic initiatives (Falk 1997: 19) which challenge what is sometimes referred to as “globalization from above” or the neoliberal policies of international institutions and national governments, and the influence of transnational corporations.

Conclusion

Resistance to agricultural biotechnology (as well as support for it) is found in many different countries around the world, but *why* and *how* it is resisted (or supported) may differ. While Colombian and Mexican activists share concerns and strategies with anti-GM activists internationally, their campaigns strategically focus on maize as a powerful symbol of *their* region, its peoples, and distinct cultures. This focus on maize as a symbol of cultural difference lapses into romanticized and ahistorical portrayals of peasantries and indigenous communities, but it also illustrates how activists in the global south engage food sovereignty as more than a big tent concept; it is a concept that highlights the importance of place and a multidimensional, even radical, critique of neoliberal globalization.

In Mexico and Colombia, activists oppose transgenic seeds, particularly transgenic maize, because of its potentially harmful effects on *criollos* and campesino and indigenous livelihoods. Activists explicitly take up “food sovereignty” as a concept and approach in their debates, forums, and declarations, highlighting the call for rural producers to have control over their productive resources --to have the ability to pursue rural futures if they so choose-- and for the voices and opinions of rural producers to have weight in government and supra-national decisions about agriculture, resources, and trade.

Beyond the rejection of GMOs for environmental, food safety, or ethical reasons and as part of a desire to preserve rural society –issues highlighted in early anti-GM campaigns in Western Europe, for example (Schurman 2003)-- these Colombian and Mexican activists oppose GMOs, and transgenic corn in particular, as part of a broader critique of how neoliberal globalization undermines sovereignty. In other words, the appeal of food sovereignty is that it focuses our attention on questions of *sovereignty* –on how to advance or protect economic, political and cultural self-determination and autonomy, at various levels and spheres.

Although the focus on maize has different degrees of success and resonance in Mexico and Colombia, I hope the comparison serves as a reminder to consider why and how activists

²³ Although some large transnational organizations like Greenpeace and SwissAid are important actors in these anti-GM campaigns, they have offices in Mexico and Colombia, staffed by locals.

oppose GMOs and take up “food sovereignty” in different places. These campaigns against transgenic corn also provide insight into how indigenous maize farmers and campesinos, along with professional activists in urban Colombia and Mexico, help shape “globalization from below” by the sharing information and strategies through networks between regions and countries of the global south.

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A fundamentally contested concept, food sovereignty has — as a political project and campaign, an alternative, a social movement, and an analytical framework — barged into global agrarian discourse over the last two decades. Since then, it has inspired and mobilized diverse publics: workers, scholars and public intellectuals, farmers and peasant movements, NGOs and human rights activists in the North and global South. The term has become a challenging subject for social science research, and has been interpreted and reinterpreted in a variety of ways by various groups and individuals. Indeed, it is a concept that is broadly defined as the right of peoples to democratically control or determine the shape of their food system, and to produce sufficient and healthy food in culturally appropriate and ecologically sustainable ways in and near their territory. As such it spans issues such as food politics, agroecology, land reform, biofuels, genetically modified organisms (GMOs), urban gardening, the patenting of life forms, labor migration, the feeding of volatile cities, ecological sustainability, and subsistence rights.

Sponsored by the [Program in Agrarian Studies at Yale University](#) and the [Journal of Peasant Studies](#), and co-organized by [Food First](#), [Initiatives in Critical Agrarian Studies \(ICAS\)](#) and the [International Institute of Social Studies \(ISS\)](#) in The Hague, as well as the Amsterdam-based [Transnational Institute \(TNI\)](#), the conference “Food Sovereignty: A Critical Dialogue” will be held at Yale University on September 14–15, 2013. The event will bring together leading scholars and political activists who are advocates of and sympathetic to the idea of food sovereignty, as well as those who are skeptical to the concept of food sovereignty to foster a critical and productive dialogue on the issue. The purpose of the meeting is to examine what food sovereignty might mean, how it might be variously construed, and what policies (e.g. of land use, commodity policy, and food subsidies) it implies. Moreover, such a dialogue aims at exploring whether the subject of food sovereignty has an “intellectual future” in critical agrarian studies and, if so, on what terms.

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