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Seed Sovereignty Struggles in an Emberá-Chamí Community in Colombia

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Seed Sovereignty Struggles in an Emberá-Chamí Community in Colombia [2]

For each seed seized, we will make them germinate and flower again, multiply, spread, and travel freely with farmers across Colombian fields (Network of Free Seeds, "Manifesto on Seeds", 2013)[3]

Seeds of Struggle

In May 2014, in the context of my dissertation fieldwork, I attended a meeting in the district of Riosucio, located in the Colombian coffee-growing zone, to discuss recent conflicts over the property and circulation of seeds. The district of Riosucio comprises a "*mestizo*" town surrounded by four Emberá-Chamí autonomous

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[3] This article is a revised version of a chapter of my dissertation *The Political Ontology of Seeds: Seed Sovereignty Struggles in an Indigenous Resguardo in Colombia*. Email: laurittag@yahoo.com I am grateful to the anonymous reviewers for their feedback.

indigenous communities or *resguardos,* each with their own local government, called *cabildo.*[4]

Indigenous leaders from the *cabildos* and the Mayor's office attended the meeting, as well as local seed savers[5]. Seed savers are farmers who have a particularly strong interest in, and love for, conserving and developing heirloom seed varieties -which they often call *criollos*- for several reasons including better nutrition, soil conservation, ritualistic uses, and autonomy from the seed industry.[6] There were also representatives of NGOs affiliated with the Network of Free Seeds (NFS), a network that supports grassroots organizations that conserve and protect *criollo* seeds, and advocates against genetically modified (GM) seeds and intellectual property rights (IPRs) on plant material, among other issues related to food and seed sovereignty.

The saving and conservation of IPR-free *criollo* seeds as well as anti-GM activism are strong in Riosucio's *resguardos* due to several initiatives. The seed savers' networks are some of the most important and largest in the country. They are supported by the *cabildos* and a local grassroots agroecological organization of indigenous and peasant farmers called *Asociación de Productores Indígenas y Campesinos* (Asproinca). In 2009, the indigenous people from the Cañamomo-Lomaprieta *resguardo* declared their community a "Transgenic-Free Territory". This

[4] The four resguardos are Cañamomo-Lomaprieta, Escopetera-Pirsa, San Lorenzo, and La Montaña.

[5] In 2011, a leader from Cañamomo-Lomaprieta became elected as the first indigenous Mayor in the history of Riosucio.

[6] As Fitting, Wattnem and myself (in print) explained: "In Spanish, *criollo/criolla* refers to both landraces and creolized varieties, the latter of which are the outcome of an intentional or accidental mix of landraces with scientifically improved varieties. We use the Spanish term "*criollo/a*" –rather than native or traditional – because seed savers often use it, and it captures the fluid, active nature of seed varietal development."

declaration[7] forbids the implementation of any "food security and agricultural development programs that contain GM seeds, food, or technological packages that put at risk our traditional seeds, ancestral knowledges, and territory" (my translation). They also built a *Casa Comunitaria de Semillas* (Community Seed House), inaugurated in 2013.

The meeting took place at the Community Seed House. We sat on wooden benches outside the Seed House against the backdrop of coffee and plantain fields. I took notes –by request– while sipping coffee sweetened with *aguapanela*, a traditional beverage made of *panela*, an unrefined brown sugar. A heated discussion developed at the meeting regarding two instances of seed conflicts in the last two years. The conflicts arose between, on the one hand, Riosucio's indigenous municipal government, the *cabildos*, and the *resguardos*' seed savers. On the other, the Coffee and *Panela* Growers' Federations (*Fedecafé* and *Fedepanela*), and the Ministry of Agriculture –particularly ICA, its branch in charge of plant health inspection and safety.

In the first clash, Riosucio's indigenous municipal government and the *cabildos* refused the requirement to use ICA's certified seed in agricultural development programs sponsored by the Ministry of Agriculture *(Alianzas Productivas*, or productive alliances) to cultivate plantain, *panela* cane, and avocado. Instead, Riosucio's municipality started to supply such programs with *criollo* seeds, mainly from the Seed House and *comunero* farmers to boost local production. *Comunero* is the term used by indigenous people in Riosucio, and across the country, to refer to themselves. The term is meant to emphasize the 'communal' ethos that self-defines indigenous people.

[7] Available at http://www.rallt.org/LIBRES/COLOMBIA/Colombia%20Canamomo%20y%20Lomaprieta.pdf

Manuel, a seed saver and municipal government employee, recalled with indignation that ICA ordered them to use certified *panela* cane seed brought from the northeastern Department of Santander and endorsed by *Fedepanela*.[8] The local administration refused to use such seed, arguing that local producers held the right to "cultivate their own varieties that are adapted to the area". In relation to plantain, Manuel explained that ICA, after much discussion, agreed to allow local producers to use seed from their own plantain crops for the *Alianzas Productivas*. However, ICA forbade farmers who did not have plantain crops of their own to obtain seed from their neighbors. It ruled that the municipality bought certified seed from a specific ICA-approved plant nursery, located in the nearby town of Chinchiná, to supply those farmers.

The Mayor's office and the *cabildos* clashed a second time with representatives from *Fedecafé* over maize seed supply for the food security programs this Federation sponsors among coffee-growing farmers. According to Manuel, *Fedecafé* is giving away ICA's certified maize seed to *resguardo* farmers. These indigenous farmers, especially non-seed savers, may lack the political and ethical commitment to growing *criollo* seeds. They are also often unable to turn free seeds down, given their economic vulnerability, particularly in the context of low prices. Official food security programs then harm the *cabildos*' food sovereignty programs that use *criollo* seeds. Furthermore, Manuel and other indigenous leaders fear that ICA's maize – specifically ICA V-305– is contaminated with transgenes from imported GM varieties, which are cheaper than domestic ones in the market.[9] Juan, another Emberá-Chamí leader, passionately called on *comuneros* to start the process to declare their *resguardos* as Transgenic-Free Territories, following the lead of

[8] In this article, I use pseudonyms to protect the identity of the Emberá-Chamí people I worked with. All testimonies were collected during dissertation fieldwork in 2013-2014.

[9] Imported GM maize is cheaper than *criollo* maize because its production is highly subsidized in comparison to domestic one. In addition, there is the progressive elimination of trade tariffs on foreign agricultural goods, including maize, due to the US-Colombia FTA.

Cañamomo- Lomaprieta. He argued that such declarations were necessary in order to:

> "demand from all of these central government authorities and growers' federations that they use in their programs seed from our municipality, our region, our own seeds. Seeds that have a history, a process, that are not contaminated. We have to assert our autonomy as well as ICA's own norms that forbid growing GM maize in indigenous *resguardos*.[10] Otherwise, in the near future, we are not going to be the municipal government any longer and they are going to impose that all *resguardos* have to use certified seed."

In this article, I argue that struggles around seed commons in Riosucio's *resguardos* are at the center of broader issues, namely indigenous rights to territory, self-government, and the defense of their own agricultural practices. Following Arturo Escobar (2008), I contend that seed conflicts are part of larger conflicts over autonomy and '*modelos propios,*' or place-based ways of inhabiting and sustaining themselves in the territory. More specifically, they are struggles for seed sovereignty, or for the autonomous control of the ways in which seed –as a collective heritage– is produced, owned, circulated, saved, and endowed with meanings and spirituality (Kloppenburg, 2010). In this sense, seed sovereignty is an integral part of food sovereignty and self-government.

Good and Bad Seeds: Coloniality of Nature and Knowledge

Seed sovereignty initiatives in Riosucio have become politicized in the context of the struggle for indigenous territory, identity, and self-governance. Even though these Emberá-Chamí *resguardos*conserve their colonial *resguardo* titles, they have lost their language and other identity markers to be mobilized as further legitimacy of

[10] Juan is referring to ICA's prohibition to cultivate GM crops inside of –and within 300 meters or 1,000 feet– of indigenous *resguardos*.

their indigeneity before the State and non-indigenous Colombian society in order to demand Constitutional rights to political autonomy and territory.[11]

The coloniality of power in the Americas –racialized forms of power that classified people according to their distance to Eurocentric modernity that continued after Independence from Spain– thus implied restructuring subsistence systems -and the associated knowledges and nature-human relations. In other words, the coloniality of power constructed Latin American nature and place-based agricultural and botanical knowledges as inferior to European ones (Escobar, 2008; Alimonda, 2010). The persecution and/or denigration of *criollo* varieties of maize, bean, plantain, *guarapo*, *chirrinchi* and other staple crops and foods –scornfully called Indian or poor people's food/crops– is thus a long-term historical process.[12] To be sure, since Colonial times, American plants and foods central to indigenous cosmovisions and subsistence, such as quinoa or amaranth, became outlawed and deemed symbols of savagery and non-civilized life.[13] Currently, the advent of the Green Revolution –and the New Green Revolution where GM seeds figure prominently– continue to subordinate the diverse worlds of agricultural practices and knowledges that belong to indigenous, afro-descendant, and peasant communities around the world. In this context, *criollo* seeds stand as a powerful indigenous symbol of alterity and resistance in Colombia.

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[11] During colonial times, the Spanish crown created *resguardos* as indigenous territories and granted titles to these communities. The 1991 Constitution recognized Colombia as a multicultural nation and granted ethnic-based rights to minorities. Accordingly, indigenous people gained the right to self-government unlike mixed-descendant people, such as peasants.

[12] *Guarapo* is a sugar-cane fermented drink. *Chirrinchi* is its distilled form.

[13] A well-known case is that of *chicha*, a pre-Hispanic beverage made of fermented maize. As an ancestral drink, *chicha* has been considered unhygienic, unhealthy, stupefying and violence-prone, reproducing long-held racist violence and ethnocentric views of the indigenous world. As a result, *chicha* has been actively persecuted and forbidden until recently. For instance, Simón Bolívar outlawed *chicha* in 1820. During the 1930s, the Colombian government persecuted *chicha* producers and consumers to benefit the nascent beer industry that was associated with civilized European life and culture.

Since the 1970s, in Riosucio –and across the Colombian coffee-growing region–, the Colombian Coffee Growers' Federation (Fedecafé) promoted the Green Revolution to replace the 'traditional' model of diversified coffee cultivation – known as 'coffee-forest'– with mono-cropping, the increased use of agrochemical inputs, and the rationalization and 'scientific' management of coffee production, including improved sun-grown seed varieties (Corrales, 2002). The transition from the coffee-forest polycropping model to high-input monocropping implied the loss of *criollo* seeds –and associated knowledges– of a wide variety of subsistence crops, trees, roots, and medicinal plants previously grown in home gardens or alongside coffee.[14] Emberá-Chamí farmers in Riosucio refer to this process as the loss of subsistence crops, the switch to a less nutritious diet, ecological damage and, in general, the intrusion of capitalist market relations in all aspects of life from buying food in town to the need for credit to buy agro-chemicals that led to indebtedness. Juana, a local seed saver, associated coffee expansion to a form of re-conquest (*reconquista*) of indigenous territories, ways of life, and seeds:

> "Coffee expansion was a *reconquista* that displaced our own agriculture, our own *chacras*[plots] in favor of coffee mono-cropping that destroyed the watersheds, the forest. With the coffee bonanza, people dedicated themselves to growing coffee only and forgot about the traditional medicine, seeds, and diet"

Nonetheless, indigenous farmers in Riosucio also recognize that Fedecafé has brought some prosperity to the region. Fedecafé's institutional framework provides,

[14] One important caveat. The designation of *criollo* to some seeds, and its association with indigenous identities and struggles is historically and contextually dependent in Riosucio. The clearest example is coffee which has been both a vehicle of coloniality and resistance. Coffee, native to Africa, was initially brought as a plantation crop to the Americas during European colonization. However, coffee arrived in Riosucio in the early 19th century, after Independence from Spain, due to a later wave of colonization by settlers from the region of Antioquia (Appelbaum, 2003). For indigenous people in Riosucio, shade-grown coffee varieties became 'traditional' or *criollas* after Fedecafé introduced sun-grown varieties, starting in the 1960s and based on the Green Revolution model.

particularly in times of neoliberal 'free' market policies, important protections in terms of income and social investment to vulnerable small-scale coffee farmers. For instance, Fedecafé's coffee varieties are not protected by intellectual property rights so farmers can obtain, reproduce, and exchange them freely within the country.

As explained further below, indigenous farmers in Riosucio associate the introduction of GM seeds as the newest expression of western capitalist agriculture that seeks to undermine their own production models, autonomy, and identities. *Criollo* and certified seeds –including GM seeds– have then come to differently embed the indigenous collective self, struggles, and racialized forms of oppression among the Emberá-Chamí people of Riosucio.

Sowing Seed Conflicts: Free Trade Agreements and the Enclosure of Seed Commons

To further understand these seed conflicts in Colombia, I draw from the literature on food regimes and, in particular on the concept of corporate or neoliberal seed regime. This regime involves a complex set of global structures, norms, and practices of seed governance and political economy, advanced through Free Trade Agreements (FTAs) and other neoliberal policies, which mostly benefit biotechnology corporations, such as Monsanto, Syngenta, or Bayer, and their local allies worldwide (McMichael, 2009; Otero, 2012). Its main institutions and practices include IPRs, biotechnology, the corporatization of plant science research, biosafety protocols, seed contracts and certification, seed banks, and bioprospecting.

In Colombia, the Corporate or Neoliberal Seed Regime became largely implemented since the US-Colombia FTA came into effect in 2012. On the one hand, the FTA encourage the expansion of imports and cultivation of GM varieties, especially maize for agrofuels and animal feed. On the other, this FTA mandated the implementation of a series of changes in legislation on IPRs and certification standards to adapt Colombian domestic law to US standards based on international

regulations set by the International Union for the Protection of New Varieties of Plants (UPOV) Convention of 1991 (hereafter UPOV 91).[15]

Colombia's adoption of UPOV91 contradicted the country's adhesion to the Convention on Biological Diversity and the Andean Community Decision 391 on Common Regime on Access to Genetic Resources. These international agreements call on countries to protect farmers' right to freely save and commercialize seed; forbid the patenting of living beings, except microorganisms, and of a wide range of genetic engineering methods and products; and require previous and informed consent as well as the fair and equal distribution of benefits derived from the use of genetic resources to the local communities (Gómez Lee, 2007; Góngora-Mera and Motta, 2014).[16]

Specifically, Colombia introduced modifications to the country's Criminal Code and seed quality standards for the enactment of patent-like breeders' rights that forbid seed saving of legally protected seeds and the requirement that farmers can only commercialize produce grown from certified seed.[17] Law 1032 of 2006, which modifies the Criminal Code, states that the violation ofbreeders' rights will be penalized with prison sentences that range between four and eight years, and fines

[15] The UPOV Convention was adopted in Paris in 1961 and it was revised in 1972, 1978 and 1991 (UPOV webpage http://www.upov.int/portal/index.html.en) consulted July 19, 2016.

[16] Besides the CBD and the Andean Community regulations, Colombia was signatory of the ILO 169 Convention on indigenous and tribal peoples, the UPOV 1978 and had signed but not ratified the UN International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), commonly called the Seed Treaty. The US, in contrast, was not a member of any of these International Agreements but the UPOV, although in its 1991version and, like Colombia, has signed but not ratified the Seed Treaty.

[17] In Free Trade Agreements, this process is often referred to as the 'harmonization' of countries' domestic property law. As seen in the Colombian case, rather than a fair negotiation between the parts, biodiverse countries from the global south are usually pressured to adopt UPOV91.

between USD $7,000 and $400,000[18] for anyone who usurps breeder's rights for legally protected varieties (Grupo Semillas, 2011; Gutiérrez and Fitting, 2016). Between 2010 and 2012, ICA ordered the seizing of close to five thousand tons of seeds and the destruction of half of those based on its Resolution 970, which regulates seed production and commercialization.[19] The Network of Free Seeds (NFS) has challenged this legislation in court. For instance, in 2012 the Colombian Constitutional Court declared Law 1518, which adopted UPOV91, unconstitutional granting the NSF an unprecedented legal victory. However, UPOV91-based legislation has either not been repealed or unsubstantially modified.[20]

In Colombia, as elsewhere, the expansion of GM crops, particularly herbicide tolerant and insect resistant varieties of maize and cotton, has also tightened the control of biotechnology corporations over farmers. Besides being protected by patents and other forms of intellectual property, GM crops are legally tied to specific technological packages. The most well-known example are Monsanto's Roundup Ready GM seeds, which farmers must plant in combination with Roundup, the company's commercial name for glyphosate, a wide-spectrum herbicide. In addition, farmers are bound to buy seed stock every year in the case of GM varieties of hybrid crops, such as maize, because they lose the special characteristics engineered into them as well as their vigor –or plants' capacity to achieve their full growth potential– in subsequent generations.[21]

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[18] The fines range from 26 to 1.500 minimum legal wages. As of 2017, the minimum legal wage in Colombia is 738.000 pesos, which is equivalent to approximately USD$270.

[19] Documentary 970 denounces the seizing and destruction of rice seed in the town of Campoalegre, located in the southwestern Department of Huila.

[20] For further information, see Gutiérrez and Fitting (2016) and Fitting, Wattnem, and Gutiérrez (in print).

[21] In their aggressive search for seed's sterility through genetic engineering, biotechnology companies have developed seeds that are genetically modified to be infertile or to only produce viable seed if under the influence of specific chemicals. These 'biological containment' **

The expansion of intellectual property rights and GM crops has brought a renewed round of enclosures of seed commons, or what anthropologist Donald Nonini (2007) calls the 'wearing down' of commons. Rather than commons under the control of farmers, seeds are increasingly conceived, produced, and managed as human-made –that is, scientifically redesigned– commodities available for private property. The commodification and enclosure of seed commons –and life itself– is sustained by a form of (bio)hegemony or the "acceptance of a 'natural' order of capitalist relations of agrarian production" that takes for granted the commodification of life (Newell, 2009; Valdivia, 2010). Regarding agricultural biotechnology, such 'natural order' is based on a double reductionism –both genetic and economic– that furthers "the extension of the commodity realm to the molecular level" (McAfee, 2003: 209). In this way, seeds become a collection of genes that are decoded, manipulated, moved across different species, and switched on and off to "devise super crops that will bring about the end of hunger" (McAfee, 2003: 205). In turn these "new commodity fictions" cannot only be privately owned, but also "quantified, priced and traded" in global stock markets (Sullivan, 2010: 115-116).

Seed Sovereignty Struggles: Keeping the Seed Circulating Freely in the Territories

technologies are called Gene Use Restriction Technologies (GURTs) and Recoverable Block of Function; the ETC Group has named them 'Terminator' and 'Zombie' seeds. The UN has placed a moratorium on GURTs due to their serious menace to biodiversity and life in the planet. As a consequence, biotechnology companies have not been able to commercialize seeds modified using GURTS so far; however these companies are constantly trying to undermine the moratorium. See: ETC Group. 2007. "Suicide-Seed Sequel: EU's "Transcontainer" Turns Terminator into Zombie: http://www.etcgroup.org/content/suicide-seed-sequel-eu%E2%80%99s-%E2%80%9Ctranscontainer%E2%80%9D-turns-terminator-zombie

To analyse seed sovereignty initiatives in the broader context of indigenous struggles for territory, I focus on the Cañamomo and Lomaprieta Community Seed House. This Seed House, as others, preserves agrobiodiversity and 'traditional' or place-based knowledges to strengthen local seed provisioning and prevent what seed savers and activists refer to as 'genetic contamination' of *criollo*varieties.[22] It is a center for grassroots participatory seed development to produce agroecological and healthy seeds that can be adapted to the needs of small-scale food producers in Riosucio's *resguardos*and nearby communities. The Community Seed House is an illustrative example of how *criollo* seed conservation has become politicized in Riosucio in the context of larger struggles for indigenous territory, identity, and self-governance.

Seed Commons, Alternative Markets and Fair Prices

The Community Seed House buys seed from the *resguardos*' seed savers networks and from other networks and farmers as long as they are either *criollo* or commercial varieties that have been produced agroecologically or without the use of petro-chemical inputs. There are two kinds of indigenous farmers associated with the Seed House. One kind are the local seed savers who have a large variety of seeds, but do not produce them in great quantity. The other kind is the *cosecheros* (growers) who have a reduced variety of seeds –usually those that are most demanded by powerful merchants, such as supermarkets– but are larger-scale producers than seed savers. *Cosecheros* are important to provide large quantity of seeds for supplying *resguardos'* food sovereignty programs. The Seed House trains

[22] In contrast, scientists, biotechnology corporations, and government officials most often use the term 'gene flow.' Anti-GMOs activists and communities in Colombia, and across Latin America, reject the term because of its political neutrality: 'gene flow', in contrast with 'genetic contamination' conveys the impression that this is a 'natural' process and obscures the political struggles and controversies over GM crops. In this way, seed savers and activists contest the discursive power of techno-science and reframe the discussion on the impacts of GMOs on (agro)biodiversity.

cosecheros to produce seed agroecologically; however, they have a more "market-oriented" vision according to seed saver Rosa.

The Community Seed House provides an interesting case of how some indigenous communities in the Colombian Andes engage in what feminist geographers J.K. Gibson-Graham (2006) call 'community economies' or those in which "social interdependency (economic being-in-common) is acknowledged and fostered and new kinds of economic subjects are produced (301)". The Seed House constitutes a community seed economy in two aspects. First, its seed production and distribution systems maintain seeds as commons. Second, the Seed House´s staff takes decisions based on collective decision-making. For instance, seed prices are collectively set so that allocation of surplus is fair in seed purchase. Cañamomo and Lomaprieta seed savers associated with the Seed House developed Seed Internal Guidelines to define seed lending and purchase regulations, seed saving and conservation methods, etc.

The Seed House strives to maintain *criollos* as a common good by keeping seed outside the IPR system. It also provides a space for selling seeds without commodifying them as well as supports alternative market practices that allow for barter and reciprocity. For instance, according to the Seed Guidelines, if the farmer does not have the capacity to buy seeds, these are given for free. However, the Seed House requires recipients to give back up to 50% of the amount of seed they originally received after the first harvest in order to maintain seed provisioning.

During my fieldwork, there were heated discussions and a lot of anxiety among seed savers not only from Riosucio, but also from other communities affiliated to the Colombian Network of Free Seeds (NFS), regarding whether or not Seed Houses could sell and buy seeds. At a meeting, Eloisa, a Riosucio's seed saver, explained the issues at stake:

"We don't want to speculate with high prices [in seed]. We would like for the seed saver to have a high income from selling his seeds but that would imply that farmers would have to buy expensive seeds. We don't want that because it's an agroecological seed, then only higher-income people (*el estrato alto*) can access these

types of seeds. This is why we consider a fair price both for seed savers and for whoever acquires the seed. We don't want to make a business like seed companies do."

After several meetings and discussions, seed savers decided that seed prices would be set through a collective process of decision-making between seed savers and the Seed House staff, who are themselves indigenous farmers from the *resguardo*. This process aims to allocate prices to seeds that are fair to both seed savers –recognizing their effort and time in growing these seeds– and to low-income farmers who want to obtain such seeds. In fact, fair prices recognize that producing agroecological seed takes more labour and time than regular seed. For instance, the Seed House requires seed savers to de-kernel and select maize and beans by hand.

Rosa explained the ethical commitments that guarantee seed savers can earn a fair income to live in a 'system that functions with money' without turning seeds into a regular commodity for profit-making or that does not take into account the rights and needs –that does not take care– of farmers and seeds:

"We did the collective and conscientious exercise of analyzing this issue and we decided that what we pay to the seed saver is the labor, the time, the effort, the space in his field to produce this seed agroecologically. The cost recognizes all of that even though seeds have no price. But unfortunately we are in a system that functions with money. If only we could get on the bus and pay with a corncob or we had an alternative currency, that'd be ideal. What we do is to have fair prices, we don't sell [the seed] to anyone but directly to the producer or to an organization that we know is going to sow it and take care of it."

Accordingly, the labels on seed bags state: "This seed is not a commercial product. Its price is to recognize the seed saver's effort and dedication" (Figure 2). The Seed House reproduces the seed and sells it or redistributes it through barter or for free to *resguardo* families, to other seed saving networks, or to farmers who make the commitment to care for the seed. The seed bags also contain a statement that reinforces the strong relationship between agrobiodiversity and cultural diversity,

particularly in indigenous territories: "The Seed House is a meeting space for seed savers that recuperate, conserve, produce and exchange agroecological native and *criollo* seeds, which are a peoples' patrimony to strengthen culture and the development of indigenous communities."

What is a Good Seed? Epistemic Resistance and Seed Quality Standards

The Seed House engages in epistemic resistance by rejecting conventional schemes –used by ICA and seed companies to certify the sanity and quality of hybrid and GM seeds according to criteria that turn on yield, purity, and genetic homogeneity. *Criollo* seeds, in contrast, are considered unproductive and risky in terms of phytosanitary standards (Fitting, Wattnem, and Gutiérrez, in print). For Riosucio seed savers –and in general, seed savers associated with the NFS– certified seeds are produced in ecosystems that are different from their own; they are highly susceptible to climate conditions and poor soils that are often characteristic of peasant and indigenous farming; and they only work well in combination with expensive technological packages. In addition, they reject certified seeds for their centrality to export-oriented corporate agriculture that threatens peasant economies and agrobiodiversity through land grabs, seed commodification, food imports, and the genetic contamination of traditional varieties. In fact, seed savers refer to both hybrids and GM varieties as *semillas desmejoradas* or "degraded seeds," a designation directly challenging the primacy of scientific breeding and knowledges in so-called "improved" varieties.

Accordingly, the Seed House has developed its own standards of safety and quality creating a *Sistema Participativo de Garantías*, or Participatory Guarantee System (PGS). PGS constitutes epistemic resistance against hegemonic definitions of what is a 'good' seed. PGS is based on the knowledge that gives farmers the ability to preserve and develop heterogeneous varieties on their plots and to incorporate concepts and methods from agronomic sciences and genetics only as they deem appropriate. For instance, the Seed House staff requires seed savers to supply seeds adapted to local conditions, grown, and reproduced without the use of chemicals while also using conventional standards for germination, cleanliness, humidity, etc.

In short, as Rosa stated, PGS is about "trust and solidarity among seed savers, about knowing how the seed was grown and in which community."

The Challenges of Seed Sovereignty

Seed savers and authorities from Cañamomo and Lomaprieta are conscious that declaring their *resguardo* as Transgenic-Free is largely a political statement that is difficult to implement. First, it is not easy for farmers to identify GM from non-GM seeds and food. Second, seeds circulate rapidly and informally among farmers, and through the market and institutional programs, making it hard to control the use and propagation of GM seeds. Third, there are no large markets for *criollos*, and biotechnology corporations have powerful economic, legal and political instruments, such as IPRs and FTAs, to commodify and monopolize seeds. Fourth, seed savers and *cabildo* authorities are often unable to enforce the prohibition on GMOs among *comuneros*. These already marginalized farmers are often not in the position to reject free GM seeds from public and private institutions. Neither is easy for them to grow *criollo* varieties which produce is not accepted by merchants –or if so, at lower prices than GM–. Fifth, enforcement is difficult among local non-indigenous farmers who either lack commitment and/or hold economic, political and legal leverage to more easily circumvent the prohibition (Gutiérrez and Fitting, 2016). Samuel, a Riosucio seed saver, articulated these problems at the meeting in the Seed House:

"People are told not to sow GM seeds, but unfortunately there are not enough seeds and the fields are too small. Knocking down the cane or coffee to cultivate [*criollo*] maize is not profitable. In Escopetera-Pirsa [community], rich people who have their lands there, [they] are not going to knock down the grasses to grow maize and they do not care if there are GMOs. We need to find solutions to these issues."

Seed savers and indigenous authorities at the meeting also underscored the lack of awareness among *resguardo* authorities themselves on the threats of GM varieties. There was also concern in regards to the level of compromise with the conservation of *criollo* seeds for seed and food sovereignty and indigenous self-government,

autonomy and identities. Ricardo, a local leader, stated: "How committed are we really with this issue of TFT [Transgenic-Free Territories]. We go around approving resolutions left and right, but no one takes responsibility."

Seeds of Identity and Autonomy

> "In the process of losing the territory, seeds were lost. We can't speak of food sovereignty with seeds from abroad and distributed by official programs […], which do not germinate [because they are not adapted to the local ecosystems] and may carry the danger of [GM] contamination. So in the last years, indigenous communities became aware of this problem and began formulating communities' life plans. Based on those life plans, we formulated policies for food sovereignty. This is a political process of autonomy in defense of territory and culture, and of seed."

This testimony by Cañamomo and Lomaprieta seed saver Rosa illustrates how the defense of territory, identity, and *modelos propios* based on life, rather than development, plans are deeply connected to seed sovereignty initiatives in Riosucio, such as seed saving networks, the Community Seed House and the Transgenic-Free Territory Declaration. The defense and conservation of *criollo* seeds challenge the coloniality of knowledge and nature embedded in past and current forms of capitalist agriculture that hierarchically classify seeds, and associated agricultural knowledges and practices, according to their market value and 'improvement' by western techno-science.

These initiatives may then constitute a Community Seed Economy where growing, conserving, and exchanging seeds are not the result of purely calculative, disembodied market relations. For instance, seed prices are not based on the behavior of international markets, stock exchanges and biotechnology companies' board decisions. Rather, economic decisions are embedded in specific contexts and made according to seeds' diverse values –or the ability to satisfy a range of farmers' needs such as agronomical, nutritional/medicinal or ritual – as well as to moral considerations on fair prices for both consumers and buyers. In other words, there

is a collective commitment and struggle (with setbacks and conflicts) on the part of seed savers to maintain seed as commons –based on solidarity and reciprocity– despite the constant encroachments of corporate agriculture and government's seed and food policies.

References

Alimonda, Héctor. 2010. "Sobre la insostenible colonialidad de la naturaleza latinoamericana" Palacio Castañeda, Germán (ed.) *Ecología política de la Amazonía: las profusas y difusas redes de la gobernanza.*Bogotá: ILSA, UNAL, and Ecofondo, 61-98.

Appelbaum, Nancy. 2003. *Muddied Waters: Race, Region, and Local History in Colombia, 1846–1948.* Durham: Duke University Press.

Corrales, Elcy. 2002. "Sostenibilidad agropecuaria y sistemas de producción campesinos". *Cuadernos Tierra y Justicia* (5) Bogotá: ILSA.

Escobar, Arturo. 2008. *Territories of Difference: Place, Movements, Life, Redes.* Durham: Duke University Press.

Fitting, Elizabeth, Tamara Wattnem, and Laura Gutiérrez Escobar. (in print). "Contesting Seed Standards: The *Red de Semillas Libres* in Colombia". In: Christina Holmes and Janice Graham. (Eds.), *Localizing Standards.* Vancouver, Canada: University of British Columbia Press.

Gómez Lee, Martha Isabel. 2007. "Amenazas del TLC a la biodiversidad andina" *OASIS*, 12, 367-383.

Góngora-Mera, Manuel and Renata Motta. 2014. "El derecho internacional y la mercantilización biohegemónica de la naturaleza: la diseminación normativa de la propiedad intelectual sobre semillas en Colombia y Argentina." Góngora Göbel, Barbara, Manuel Góngora-Mera and Astrid Ulloa (Eds.) *Desigualdades socioambientales en América Latina. Biblioteca Abierta, serie perspectivas ambientales*. Bogota and Berlin: Ibero-Amerikanisches Institut, Universidad Nacional de Colombia, 395-434.

Grupo Semillas. 2011. *Las leyes de semillas aniquilan la soberanía y autonomía de los pueblos.* Bogotá: ArfoEditores e Impresores Ltda.

Gutiérrez Escobar, Laura and Elizabeth Fitting. 2016. "The *Red de Semillas Libres*: Contesting Biohegemony in Colombia" *Journal of Agrarian Change*, 16 (4), 711-719.

Kloppenburg, Jack. 2010. "Seed Sovereignty and the Promise of Open Source Biology". In: Wittman, Hanna *et al. Food sovereignty. Reconnecting Food, Nature and Community.* Halifax and Winnipeg: Fernwood, 152-167.

McAfee, Kathleen. 2003. "Neoliberalism on the molecular scale. Economic and Genetic Reductionism in Biotechnology Battles" *Geoforum*, 34, 203-219.

McMichael, Philip. 2009. "A Food Regime Genealogy" *Journal of Peasant Studies*, 36 (1), 139-169.

Newell, Peter. 2009. 'Bio-Hegemony: The Political Economy of Agricultural Biotechnology in Argentina.' *Journal of Latin American Studies*, 41, 27–57.

Nonini, Donald. 2007. "Introduction: The Global Idea of 'the Commons'" In: Nonini, Donald (Ed.) *The Global Idea of "The Commons". New York-Oxford:* Berghan Press.

Otero, Gerardo. 2012. "The Neoliberal Food Regime in Latin America: State, Agribusiness Transnational Corporations, and Biotechnology" *Canadian Journal of Development Studies*, 33 (3), 282-294.

Sullivan, Sian. 2010. "'Ecosystem Service Commodities' – A New Imperial Ecology? Implications for Animist Immanent Ecologies, with Deleuze and Guattari." *New Formations: A Journal of Culture/Theory/Politics*, 69 (special issue on Imperial Ecologies), 111-128.

Valdivia, Gabriela. 2010. "Agrarian Capitalism and Struggles over Hegemony in the Bolivian Lowlands" *Latin American Perspectives* 37 (4), 67-87.