

02

# THE DE-MATERIALIZATION OF PLANT GENETIC RESOURCES: A PEASANT'S PERSPECTIVE

*Alimata Traoré*



**Alimata Traoré** is the Chair of the [Convergence des Femmes Rurales pour la Souveraineté Alimentaire](#) (Convergence of Rural Women for Food Sovereignty, COFERSA). She is also a member of the [Coordination Nationale des Organisations Paysannes](#) (National Coordination of Peasants' Organizations, CNOP) in Mali, which is part of the [Comité Ouest-Africain pour les Semences Paysannes](#) (West African Committee for Peasant Seeds, COASP) and of the Agricultural Biodiversity Group of the [International Planning Committee for Food Sovereignty](#) (IPC).

COFERSA is based in Sikasso, in Mali. It brings together 36 rural women's cooperatives and works to increase the economic power and the social and political status of its members, spread across six regions of Mali.

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<sup>1</sup> This introduction was written by Karine Peschard, researcher at the Albert Hirschman Centre on Democracy at the Graduate Institute of International and Development Studies, Geneva.

<sup>2</sup> At the international level, the agreed-upon terminology provisionally uses the expression “digital sequence information” (DSI). This expression reflects a scientific and reductionist vision that is not appropriate because genetic information does not only include genetic or epigenetic data but also their direct relationship with an organism’s particular traits. This link can be patented as long as it is new, and can result in exploitation by specific industries. Indeed, a vast array of information has been compiled without taking into account the possible links to genetic sequencing itself, notably

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#### WHAT IS AT STAKE?<sup>1</sup>

Over the last twenty years, new techniques have allowed public and private actors to sequence genomes of living organisms at an increasingly faster pace, to amass peasants’ knowledge on their traits, and then to digitalize and store this ‘information’ in huge electronic databases.<sup>2</sup> This information is becoming ‘dematerialized’ as it is made accessible, and separated from the microorganisms, plants and animals that they stem from, and indeed they are further isolated away from the persons who provided all related knowledge. More recently, various Public-Private Partnerships (such as DivSeek) have stated that their aim is to connect and share existing databases.<sup>3</sup>

The *Convention on Biological Diversity* (CBD), the *Nagoya Protocol*, and the *International Treaty on Plant Genetic Resources for Food and Agriculture* (ITPGRFA) set out international obligations on free, prior and informed consent regarding access to genetic resources and related knowledge, as well as on benefit sharing from their usage. These agreements complement and consolidate the international human rights framework, especially in terms of the human right to adequate food and nutrition, which can only be realized if food producers have access to genetic resources and their utilization.<sup>4</sup>

Yet, the dematerialization of genetic resources risks rendering these agreements obsolete. Corporations promote an interpretation that guarantees that this ‘information’ remain freely accessible, and not be covered in these agreements on the same terms as physical genetic resources and related ‘traditional’ knowledge. This does not stop corporations from ‘re-materializing’ this information, and using it to

modify the genes of living organisms. If these databases were to escape all control, biopiracy would proliferate, as companies would be able to use them as a means to identify links between genetic sequencing and specific traits. They could then patent this ‘genetic information’ without any authorization from peasant and traditional communities. Furthermore, they could do this without sharing the benefits with those very communities who developed and preserved these resources and knowledge. Industry could then extend this patent protection to all physical organisms (plants, animals, micro-organisms) that contain this ‘genetic information’ and corresponding traits, including those provided by peasants and traditional communities, who would subsequently lose the right to use them freely. In sum, the dematerialization of plants and genetic resources is employed so as to facilitate patenting of living organisms, and the grabbing of genetic resources by industry.

Nevertheless, as we can see in the following sub-section of this article, written by Alimata Traoré, Chair of COFERSA, peasant movements shall not be fooled, as they closely follow these debates.

### **“WHAT IF THERE WERE A POWER CUT AFTER PUTTING EVERYTHING INTO A COMPUTER, WHAT THEN?”**

This quote was a reflection shared by peasants from the African continent who attended the negotiations during the Seventh Session of the Governing Body (GB7) of the ITPGRFA, which took place in Kigali, Rwanda, in October 2017. Further, this is how the women from my organization, COFERSA, reacted when I explained to them what the Governing Body meeting was like, and more precisely, the global information system (also known as ‘dematerialization’): “For peasant women, seeds are life. If you are not independent in terms of seeds, you become a slave to others. Women can only recognize seeds in the fields, or in storage pots, not on computers.” We cannot deny that peasants’ rights were also on the agenda, but what will remain of these rights if the privatization of living beings is disproportionately authorized?

Our peasant seeds, and those of our parents, have been collected without us even really knowing by whom, and for what end. Today, we are told that those who know how to use computers can become the owners of the traits that these seeds contain, and ban us from using them. My community knows how to select a sorghum variety that is sufficiently resistant to drought if sown using a farming technique called *zai*.<sup>5</sup> And now, a person or a corporation – whose interest is not our food sovereignty – can become the owner just because they speak the right digital language? We do not agree. This is why we associate ourselves to umbrella organizations such as the International Planning Committee for Food Sovereignty (IPC), with the goal of defending our rights to our peasant seeds and knowledge.

In Mali, we are participating in a process entitled Seeds, Norms and Peasants (SNP) that aims to gain recognition of peasant seed systems in national policies, including our knowledge of plants and animals. We still do not know if we can win, but the main thing is that our peasant seeds be sown and consumed. In our view, peasant seeds are closely tied to healthy food and nutrition.

It is for these reasons that we have stated, in the recommendations drafted at the GB7, that our varieties shall not be made available to the multilateral system as long as we do not have clear guarantees that ensure the ban on intellectual property rights (notably, patents on native traits), and all other rights (for example, commercial brands), which may restrict our rights to continue using, exchanging and sell-

the information stemming from peasants’ knowledge. For more information, please see: CBD. “Digital Sequence Information on Genetic Resources” CBD/SBSTTA/22/2. March 20, 2018.

3 Peschard, Karine. “Farmers’ Rights to Seed: Conflicts in International Legal Regimes”. *Right to Food and Nutrition Watch* (2016): 22–23. Available at: [www.righttofoodandnutrition.org](http://www.righttofoodandnutrition.org).

4 Monsalve Suárez, Sofia, Maryam Rahmanian and Antonio Onorati, “Seeds and Agricultural Biodiversity: The Neglected Backbone of the Right to Food and Nutrition”. *Right to Food and Nutrition Watch* (2016): 19–23. Available at: [www.righttofoodandnutrition.org](http://www.righttofoodandnutrition.org).

5 *Zai* is a West African traditional farming technique whereby pits are dug into micro-basins using a pickaxe with a small handle (known as *daba*), and then the seeds are sown. This particular type of cultivating allows for the concentration of water and manure in arid and semi-arid zones.

6 For more information on civil society organizations' statement to plenary during the Seventh Session of the ITPGRFA, please see: [www.ukabc.org/gb7](http://www.ukabc.org/gb7).

ing seeds, plants and harvests that stem from our varieties (i.e. what they call 'plant genetic resources').<sup>6</sup>

Since time immemorial, our peasant communities have exchanged and circulated peasant seeds. Today, we are asked to integrate into a bureaucratic system that we do not identify with. Our major concern is to feed our communities and our children with wholesome food, not to 'commodify' our seeds and our knowledge. We request that mechanisms be put in place to protect, maintain and value our biodiversity and knowledge. We demand the respect, protection and guarantee of our collective rights over our seeds and peasant knowledge.

If somebody comes to collect one of our varieties, first they would have to obtain the relevant community's free, prior and informed consent. We have our own local decision-making processes within our communities. These traditional mechanisms should be enhanced in order to guarantee the sustainable management of our peasant seeds within the current global framework, which has been designed to protect the interests of very few.

Today, we want to make a difference. We, peasant women and men, still possess relevant depths of knowledge. Thanks to the hard work of our hands, we still manage a wide variety of vegetable seeds, but also animal breeds and non-cultivated biodiversity. Rural women play an essential role in nurturing and preserving this agricultural biodiversity, which is the key to our families' healthy diet.

It is by allowing biodiversity to live to its fullest potential in our fields, on our land, and on our plates that we can defeat the appropriation of our seeds, plants, animals and knowledge by a handful of persons with vested interests.



### IN BRIEF

Our peasant seeds, and those of our parents, have been collected without us even really knowing by whom, and for what end. Today, we are told that those who know how to use computers can become the owners of the traits that these seeds contain, and ban us from using them. My community knows how to select a sorghum variety that is sufficiently resistant to drought if sown using a farming technique called *zai*. And now, a person or a corporation – whose interest is not our food sovereignty – can become the owner just because they speak the right digital language?

We do not agree. This is why we associate ourselves to umbrella organizations such as the International Planning Committee for Food Sovereignty (IPC), with the goal of defending our rights to our peasant seeds and knowledge.

It is for these reasons that we have stated, in the recommendations drafted at the GB7, that our varieties shall not be made available to the multilateral system as long as we do not have clear guarantees that ensure the ban on intellectual property rights (notably, patents on native traits), and all other rights (for example, commercial brands), which may restrict our rights to continue using, exchanging and selling seeds, plants and harvests that stem from our varieties (i.e. what they call ‘plant genetic resources’).

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### KEY CONCEPTS

- Over the last twenty years, new techniques have allowed public and private actors to sequence genomes of living organisms at an increasingly faster pace, to amass peasants’ knowledge on their traits, and then to digitalize and store this ‘information’ in huge electronic databases.
- Corporations promote an interpretation that guarantees that this ‘information’ remain freely accessible, and not be covered in these agreements on the same terms as physical genetic resources and related ‘traditional’ knowledge. This does not stop corporations from ‘re-materializing’ this information, and using it to modify the genes of living organisms.
- Our major concern is to feed our communities and our children with wholesome food, not to ‘commodify’ our seeds and our knowledge. We request that mechanisms be put in place to protect, maintain and value our biodiversity and knowledge. We demand the respect, protection and guarantee of our collective rights over our seeds and peasant knowledge.

→ If somebody comes to collect one of our varieties, first they would have to obtain the relevant community's free, prior and informed consent. We have our own local decision-making processes within our communities. These traditional mechanisms should be enhanced in order to guarantee the sustainable management of our peasant seeds within the current global framework, which has been designed to protect the interests of very few.



**KEY WORDS**

- Dematerialization
- Genetic resources
- Peasant seeds
- Peasant rights
- Traditional knowledge