

Ensuring agricultural resilience
in the north african region:

FARMER SEEDS AS A SOLUTION TO MAJOR CRISES



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SUMMARY



This study analyzes the legal framework for seed activities in North Africa, with a focus on Farmer Seed Systems (FSS). It assesses the capacity of the FSS to strengthen the resilience of farmers in the region to climate challenges and other types of shocks.

The aim of the study is to contribute to the emergence of an alternative agricultural project to the model imposed on North African countries since the 1950s as a result of colonization and perpetuated by the neoliberal policies of international financial institutions supported by the doctrine of food security and agricultural «modernization». The imposed model based on industrial agriculture has shown its limits and different initiatives are emerging for a fundamentally different model, based on the diversification of farms and agricultural landscapes, the replacement of chemical inputs, the optimization of biodiversity and interactions between different species, the strengthening of farmers livelihoods, etc., a model rooted in the respect of human rights and having as a guideline food sovereignty.

The study presents the elements of a legal framework allowing for the recognition of the FSS as one of the pillars of this agricultural model, the protection of the rights of farmers to freely produce their seeds and to use them in their networks and on local markets. These elements are inspired by the legal framework proposed by the Alliance for Food Sovereignty in Africa (AFSA) for the recognition and promotion of FSS and the protection of biodiversity. They are also based on other initiatives such as the practical manual developed by the Geneva Academy of International Humanitarian Law and Human Rights on the right to seeds in Africa in the context of the UN Declaration on the Rights of Peasants and People Working in Rural Areas (to be published in 2023).

LIST OF ABBREVIATIONS

AFSA	Alliance for Food Sovereignty in Africa
AMU	Arab Maghreb Union
CBD	Convention on Biological Diversity
COMESA	Common Market for Eastern and Southern Africa
CSOs	Civil Society Organizations
DUS	Distinct, uniform and stable
ECOWAS	Economic Community of West African States
FSS	Farmers' seed systems
FSR	Farmer seed register
GMO	Genetically modified organism
GTSA	Groupe de Travail sur la Souveraineté Alimentaire
ISTA	International Seed Testing Association
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
NGO	Non-governmental organization
NSF	National Seed Fund
PBC	Plant Breeder's Certificate
PBR	Plant Breeder's Right
RECs	Regional Economic Communities
RFSC	Regional Farmers' Seed Committees
SADC	Southern African Development Community
TRIPS	Trade-Related Aspects of Intellectual Property Rights
TAP	Tunisian Association of Permaculture
UMA	Union du Maghreb Arabe
UNDROP	United Nations Declaration on the Rights of Peasants
UPOV	International Union for the Protection of New Varieties of Plants

1. INTRODUCTION


1.1 General context

For several years, there has been a proliferation of initiatives aimed at the «modernization» and «transformation» of agriculture in Africa. This modernization or transformation is mostly based on the promotion of commercial and industrial agriculture through the establishment of policy and legal frameworks that create an enabling environment for this agricultural model. All African regions, including North Africa, are targeted by such initiatives.

Seed policy reforms as well as the laws and other regulations they generate are the perfect illustration of this agricultural transformation in Africa. Based on the argument of harmonized legislation and accelerated development of African countries on the basis of «modern agriculture» capable of ensuring food security, these seed policies and legislation create a favorable framework for the so-called formal commercial seed system. This gives the lion's share to breeders and other private seed companies, at the expense of farmers and smallholder seed systems, which are the foundation of resilient and sustainable agricultural and food systems.

There are generally two types of rules put in place by seed policies and legislations in Africa, namely: (i) rules and standards on seed marketing and (ii) Plant Breeders Rights (PBR), i.e. those authorizing intellectual property rights on seeds. Two other categories of laws remain applicable in the context of plant seeds, namely biosafety rules applicable to genetically modified seeds, as well as plant protection rules ensuring plant health. All these rules have already been introduced in almost all African countries, generally through the harmonization of legislation by sub-regional integration organizations, or those dealing with intellectual property, or through free trade agreements signed by the countries.

Despite this strong support for commercial seed systems, farmers' seed systems remain resilient and are still widely used by the majority of farmers who are family-based producers, also known as smallholders. In addition to using these seed systems which are adapted to their production methods and allow them to be resilient in the face of crises, and to promoting and maintaining them, farmers and their networks, as well as the civil society organizations that support them, also offer alternative contents for laws which are better suited to African countries' agricultural model and oriented towards food sovereignty.



In light of the impacts of climate change, border closures during the COVID-19 pandemic, and the war in Ukraine, the debate around farmer seeds has become more relevant with renewed demands for changing restrictive laws that benefit international seed companies as well as the local private sector, and which are detrimental to farmers and more generally to food sovereignty in the North African region. It is therefore important to understand the policies and legislations adopted in this region, to measure their implications for small-scale and family farming and to explore possible alternatives to ensure the recognition of farmers' rights and the promotion of farmer seed systems in support of food sovereignty.

The current study on «farmer seeds and food sovereignty in the region», initiated by the North Africa office of the Rosa Luxemburg Stiftung, is set within this framework.

1.2 Objectives of the study

The study aims to analyze the legislative framework related to seeds in North Africa, with a focus on farmer seed systems, and to examine the potential for this legal framework to strengthen farmers' resilience in the region. The analysis is guided by the legal framework proposed by the Alliance for Food Sovereignty in Africa (AFSA) for the recognition and promotion of farmer seed systems and the protection of biodiversity,¹ as well as the elements for an enabling legal framework that would promote farmer seed systems in North Africa.

Finally, the study leads to proposals for actions and policies to be implemented to strengthen farmer-managed seed systems. These proposals will be inspired by the above-mentioned AFSA framework but also by any other recent relevant development in the field, notably the practical manual developed by the Geneva Academy of International Humanitarian Law and Human Rights on the right to seeds in Africa within the context of the UN Declaration on the Rights of Farmers and People Working in Rural Areas.²

1 <https://afsafira.org/wp-content/uploads/2022/06/fmss-legal-framework-2022.pdf>

2 Peschard, Karine, Christophe Golay, and Lulbahri Araya. Forthcoming 2023. Practical Manual on the Right to Seeds in Africa. Geneva Academy.

1.3 Methodological approach

The study was carried out through three stages :

- (i) review of related literature, including the reading and analysis of the legal texts of three countries in the region (Algeria, Morocco and Tunisia), as well as regional texts, in particular the one of the Common Market for Eastern and Southern Africa (COMESA) and the trade agreements to which the countries are party ;
- (ii) interviews with relevant stakeholders and experts in the three countries and
- (iii) analysis of the data for the production of the study report

i. Review of related literature

The review of the literature made it possible to gather the various legal texts on seeds used in the three selected countries and by the regional organizations of which the countries are members, including the free trade agreements. These texts were critically analyzed with a view to the influence they may have on farmer seed systems. This analysis was cross examined with the content of the above-mentioned AFSA framework and with the practical manual on the realization of the right to seeds in Africa, a document under preparation by the Geneva Academy of International and Humanitarian Law, a copy of which was made available to the author (publication in December 2022).

Finally, the relevant literature was reviewed, specifically the one focusing on the critical analysis of seed laws from the perspective of farmers' rights and Farmers' Seed Systems (FSS). The review also included reports and other literature documenting actions and initiatives aimed at revising seed policies and laws for the recognition of FSS and the protection of farmer's seed rights. Based on the results of the review, an overview of the legal framework governing seeds in North Africa and specifically in some countries of the region was made. This overview is presented in section 4 below. The interview stage allowed us to consolidate the analysis and to collect concrete proposals from the stakeholders regarding the elements to be integrated into the legal framework in favor of FSS and the resilience of agriculture in North Africa against the effects of climate change and unexpected shocks such as the COVID-19 or Russia's war against Ukraine.

ii. Interviews

We conducted an online survey with key actors and experts of the region working on seed laws in general and FSS in particular, namely: researchers, farmers' organizations, state institutions, NGOs, etc. We identified about ten participants so as to get a reasonable sample for the research, which remains qualitative. We have been able to thoroughly examine the texts of three countries to have comparative elements among countries and to outline the differences in the analysis.

iii. Structure of the report

The report is composed of four parts: after the introduction, the second part presents the state of seed policies and laws in North Africa (regional and national levels). The third part provides a critical appraisal of the texts and highlights the impacts on farmer seed systems and farmers' rights. The fourth part proposes the outline of a legal text supporting farmer seed systems in the region based on the example of the framework proposed by AFSA and similar initiatives. Finally, the last section is dedicated to the conclusion.

2. STATUS OF SEED POLICIES AND LAWS IN NORTH AFRICA

National seed laws in Africa are generally shaped after, or influenced by, those adopted by the regional economic communities (RECs)³ to which the states belong. Unlike other regions, North Africa does not have a sub-regional text endorsed by a sub-regional organization such as the Economic Community of West African States (ECOWAS) or the Southern African Development Community (SADC) whose equivalent would be the Arab Maghreb Union (AMU).⁴ Legislations are therefore established at the national level. However, three countries in the region, Egypt, Libya and Tunisia, are members of COMESA, which has adopted rules for harmonizing the seed trade that member states should follow. For the moment, only Egypt has proceeded (in 2019) to make its seed law consistent with

3 List of different economic communities in Africa <https://au.int/en/bodies/cer>

4 <https://maghrebarabe.org/fr/>

the COMESA⁵ rules. The laws of other countries such as Algeria, Morocco or Tunisia, however, do not present major discrepancies with the main principles underlying the COMESA rules, which, moreover, follow the same logic as the legislations found in the other regions of Africa.⁶

It should be noted that these legislations are undergoing a global revision movement driven by Western countries through several mechanisms,⁷ and that African regional communities are struggling to ensure that the real needs of countries are given priority. Thus, the same types of legislation are adopted both in bilateral trade agreements and in multilateral agreements negotiated and signed with the same Western countries. This is the case, for example, of Morocco, which had to adhere to the 1991 convention of the International Union for the Protection of New Varieties of Plants (UPOV-91)⁸ in order to honor a commitment under its bilateral trade agreement with the United States.⁹ Morocco is also a party, along with Egypt and Tunisia, to the Euro-Mediterranean association agreements which require membership of UPOV-91.¹⁰ This particular provision obliges states to adopt the highest international standards for an effective protection of intellectual, industrial and commercial property rights, including the means and mechanisms to ensure the enforcement of such rights. Moreover, Annex 6 specifies that States must adopt the UPOV-1991 convention four or five years after the entry into force of the Euro-Mediterranean agreements.

A significant feature of seed policies and laws in the region is the coexistence of two seed systems, namely the farmer seed system and the commercial and industrial seed system. Each of the two systems has a different vision, logic, principles and values. However,

5 <https://www.comesa.int/?lang=en>

6 See for example: The Regulation C/REG-4/05/2008 of May 18, 2008 harmonizing the rules governing the quality control, certification and marketing of plant seeds and seedlings between the member countries of the Economic Community of West African States (ECOWAS), and Technical agreements for the harmonization seed regulations in SADC countries (Technical Agreements on Harmonization of Seed Regulations).

7 AFSA, GRAIN. 2015. Remise en cause des lois foncières et semencières : qui tire les ficelles des changements en Afrique ? <https://www.grain.org/article/entries/5122-remise-en-cause-des-lois-foncieres-et-semencieres-qui-tire-les-ficelles-des-changements-en-afrique>

8 <https://www.upov.int/resource/en/>

9 Morocco FTA, Chapter 15 – Intellectual Property Rights(2014), Art. 15.1 (2nd).

10 Fulya Batur, François Meienberg and Burghard Ilge, Plant variety protection and UPOV 1991 in the European Union's trade policy: Rationale, effects and state of play (APBEBES and Both Ends, 2021).

the law only addresses the commercial system while the other system is left to farmers who are not supported in their practices for the conservation, multiplication and sharing of genetic resources in which seeds constitute an integral part. The third section of the report analyzes the implications of such neglect on farmers' systems.

Based on the analysis, we can see that the state of seed laws in North Africa is reflected in the four categories of laws that make up the legal regime applicable to seeds, namely: (i) laws on seed marketing, (ii) laws regulating the use of intellectual property rights on varieties called «plant varieties», (iii) laws on biosafety, i.e. laws regulating the use of GMO seeds, and (iv) laws setting out the rules for plant health protection

2.1 Laws on seed marketing

The regulations on the marketing of seeds set the rules governing the distribution of seeds that have been produced in conformity with quality standards and norms that are imposed on all actors and whose application is guaranteed by an institution specifically dedicated to this, generally called the monitoring and certification service. As an example, we can mention :

- a. Law No. 99-42 dated May 10, 1999, relating to seeds, seedlings and new plant varieties in Tunisia (amended by Law No. 2000-66 dated July 3, 2000),
- b. Dahir No. 1-69-169 of 10 Joumada I 1389 (July 25, 1969) regulating the production and marketing of seeds and seedlings in Morocco (and its successive amendments), and
- d. Law n° 05-03 of 27 Dhou El Hidja 1425 corresponding to February 6, 2005 relating to seeds, seedlings and the protection of plant varieties in Algeria.

The regulations set by these texts cover the different components of the seed system, namely: (i) the creation and dissemination of varieties, (ii) quality control and certification, (iii) seed production and multiplication and (iv) seed marketing or distribution. Each component has its own set of rules to be respected by the actors operating in the seed system. These regulations are summarized as follows.

Creation and dissemination of varieties

In the commercial seed system, the selection and creation of varieties is done by breeders who must register and obtain a license and a professional card. The varieties created must be distinct, uniform and stable (DUS) and have a certain agronomic and technological value (ATV).


The approval process is carried out to verify whether a variety meets these criteria and, if it does, to include it in the official catalog set up to ensure that it is registered. Once registered, the variety is authorized for production and distribution in the national and regional territory if the country is part of a community that has opted for the harmonization of rules and the free circulation of seeds within the community space (such as COMESA).

Therefore, in accordance with the legislation in force, only those seed varieties that are approved and registered can be commercialized. Commercialization is defined as: «the sale, holding with a view to sale, sale offer and any cession, supply or transfer, with a view to commercial exploitation, of seeds or seedlings, whether in return for payment or not».¹¹ But for a seed to be commercialized, it must also be certified. This means that the variety is approved and registered and its seed is certified. Hence the setting up of a control and certification unit.

In some cases, as is the case in Algeria, the catalog has two lists (A and B). List A registers varieties that have met the criteria for approval. List B contains varieties which, while not meeting all the technical requirements for approval, are nevertheless of interest for national agricultural production, or may be intended for export. This raises the question of whether traditional or farmers' varieties can be included in List B and what the implications would be if so. The example of West African countries can help us answer this question. In these countries, list B is introduced with almost the same application as that of the Algerian law.¹² It is not intended to

11 The word “marketing” is not defined in any national law analyzed in this report, so these laws are supposed to regulate, among other things, “the marketing of seeds” on the national territory. For the purposes of the analysis, we adopt this definition given in the Directive 66/401/EEC (Article 1 bis) of the European Union which is included in the laws of many countries such as France or the countries of the Economic Community of West African States (article 1 of the Regulation C/REG.4/05/2008).

12 See the decree N°2019-0756/P-RM establishing the national catalog of plant species and varieties in Mali, decree adopted within the framework of the implementation of the aforementioned ECOWAS regulation.



register traditional or local varieties in these countries since a third list is created to register those varieties (List C). We can therefore deduce that List B is not intended to include farmers' varieties.

Quality control and certification

The State has set up a specific unit under its supervision to ensure the quality of seeds and to centrally carry out seed inspection, control and certification. Seed control is carried out both in the field and in the laboratory to verify the conformity of the seed to the minimum standards provided for by the technical regulations in force. Seed certification is granted after satisfactory completion of inspection and control after which the certified seed can be marketed. Accordingly, no seed is allowed to be marketed unless it is certified.

The work of the control and certification unit also covers the monitoring of compliance with the regulations on seed production and distribution, as well as the enforcement of penalties for infringement of the regulations. The certification system used in the seed laws of the three North African countries is based on either of the systems set up by the Organization for Economic Cooperation and Development (OECD), the International Seed Testing Association (ISTA). This makes it easier to harmonize procedures and rules between different countries with a view to facilitating international seed trade.

Seed production and multiplication

The seed laws in force in North African countries require seed producers to be registered within the governing authority, usually the Ministry of Agriculture or a public body to which this task is delegated. Seed is generally classified into three categories, namely: (i) basic and pre-basic seed, (ii) registered seed, and (iii) standard seed. The first category is produced by breeders. Only approved seed producers (natural or legal persons) are authorized to produce approved and standard seeds. The multiplication is done in the seed fields and can be delegated to third parties (called farmer-multipliers in some contexts).

Seed marketing or distribution

The laws of the three North African countries differentiate the status of seed producers and distributors. Distributors are required to declare their activity and obtain approval through registration on the list of authorized distributors. Besides, as already explained above, the variety whose seed is marketed must be registered in the catalog and the seed must be certified by the control and certification unit.

Table 1: Summary of the national laws of three countries in the region: Algeria, Morocco and Tunisia

Elements of the law	Algeria	Tunisia	Morocco
Reference of the texts	Law n°05-03 of 27 dhou el hidja 1425 corresponding to february 6, 2005 relating to seeds, seedlings and the protection of plant variety in algeria	Law no. 99-42 Of may 10, 1999, relating to seeds, seedlings and plant varieties in tunisia (amended by law no. 2000-66 Of july 3, 2000)	Dahir n°1-69-169 of 10 jomada i 1389 (july 25, 1969) regulating the production and marketing of seeds and seedlings in morocco (and its successive modifications)
Creation and dissemination of varieties	Articles 8 to 14. Dus and vat tests before release and registration ¹³ in the official catalogue in two lists (a and b).	Articles 4 to 6. Dus requirements and importance of cultural value. Compulsory registration in the catalog.	Art. 4: Establishment of a register and an official catalog of species and varieties of plants that can be grown in morocco.
Quality control and certification	Compulsory for registered varieties (art. 21 And 23).	Article 13 and 14. Compulsory control to verify compliance with standards.	Article 1. Can only be qualified as "seeds" or "seedlings" products certified following this control.
Seed production and multiplication	Activities subject to a prior approval regime (art. 19). Seed fields to be declared annually (art. 21).	Activities subject to specifications. Requirement to have a wood yard and seed fields and nurseries. Articles 7 and 8.	Activities subject to a prior approval regime. Section 5.

13 According to Article 6, «variety approval and plant variety protection shall cover only those plant species and plant genera listed by regulation.» Certain plant genera and species would therefore be excluded from the registration procedure and from protection by an intellectual property right. The analysis could not establish which genera and species, and the implication of this exception for farmers in Algeria. An aspect that deserves to be explored further.

Seed marketing or distribution	Art. 19 Above. Only seeds of approved and catalogued varieties (art...)	Article 9: only seeds from approved and catalogued varieties are commercialized. Article 12: must meet the standards set.	Article 1. Can only be qualified as "seeds" or "seedlings" products certified following this control.
Institutional frame	National phytotechnical authority (art. 4).	Not clearly defined. Article 2: competent authority: departments responsible for the protection of plants and plant varieties under the ministry of agriculture.	Ministry of agriculture in general. Article 1.
Penalties for the production of seed from non-catalogued varieties.	2 To 6 months in prison and a fine of one to one million five hundred thousand dinars.	Not specified in law. Reference to criminal law (article 41).	Application of the dahir on the repression of frauds in the sale of goods and falsifications of foodstuffs and agricultural products.
Location of local and traditional varieties	Not mentioned in the text.	Not mentioned in the text.	Not mentioned in the text.

One of the first conclusions that emerges from the analysis of seed commercialization laws is that they neither recognize nor support farmers' seed systems. They prohibit or constrain the preservation, use, exchange and sale of farmers' seeds. These laws also limit access to the range of locally adapted seeds that farmers can access in the market, by imposing strict certification rules for seed production and using DUS criteria to grant access to the seed market. On the whole, the laws analyzed neglect or ignore farmers' rights, needs and interests.

2.2 Laws for the protection of new plant varieties

North African countries, as members of the WTO, have the obligation to put in place laws to protect intellectual property rights in accordance with the Agreement on Trade-Related Aspects of Intellectual Property Rights (the TRIPS Agreement).¹⁴ This agreement allows countries, in its Article 27 (paragraph 3(b)),¹⁵ to exclude plants from the patent system. However, it also requests them to protect by an alternative system (*sui generis* system) in accordance with the interests and traditions of the country.

But the TRIPS agreement does not exclude from the field of patents microbiological processes and technical or non essentially biological processes. This includes genetic engineering processes, which allow the isolation of a gene from its natural environment, or the modification of the genetic heritage of an organism, notably by introducing a gene from another species. There are therefore two possible systems of protection for seeds: one for improved non-genetically modified varieties (Plant Breeders' Rights - PBR), and the other for transgenic seeds and plants (patent).

Most developing countries, including those in North Africa, have adopted plant breeders' rights as *sui generis* without being restricted to this model, which originated in the West through UPOV. Morocco and Egypt are the only countries in the region to have joined UPOV-1991. They are therefore obliged to adopt a plant breeders' rights law (PBR) in conformity with the contents of this international convention.

14 https://www.wto.org/french/tratop_f/trips_f/trips_f.htm

15 Article 27.3.b): "Members may also exclude from patents ... plants and animals other than micro-organisms, and essentially biological processes for obtaining plants or animals, other than non-biological processes and microbiologicals. However, Members shall provide for the protection of plant varieties by patents, by an effective *sui generis* system, or by a combination of these two means..."

The seed laws of Algeria and Tunisia have already set up a system similar to that of UPOV-1991. In this system, obtaining a new plant variety confers to the breeder a Plant Breeder's Right (PBR) covered by a title of protection called Plant Breeder's Certificate (PBC).

The resulting variety must meet a number of conditions in order to be registered and benefit from protection, which has consequences for the use of the variety by third parties, including farmers and others. In order to circumvent these conditions, including the obligation to have the breeder's consent or to pay him/her compensation, the use of the protected variety must be covered by one of the restrictions provided for in the law. These conditions and the consequences of protection are described below.

Conditions for the protection of rights

The variety that a breeder wishes to protect must be new, distinct, uniform and stable (NDUS requirements). The variety is also required to be designated by a denomination, which will be its generic designation. It can be seen that the criteria for obtaining a PBR are the same as those for the approval and dissemination of varieties. This makes it easier for a breeder who wishes to do both at the same time, i.e. to get the variety onto the market and to reap the benefits by controlling its use by third parties.

The criterion of novelty means that, at the date of filing of the application for protection, it has not been sold or otherwise disposed of to third parties with the breeder's consent, for more than one year in the national territory, or for more than four years in a third country. In these third party countries, the period of availability of the variety is extended to six years for trees and vines. It is understood from this provision that the variety can be considered as 'new' if it is not yet available to the public at the time the breeder applies for its protection.¹⁶

For the other three criteria, the variety must be distinct, uniform and stable. To be considered distinct, the variety must have one or more important characteristics not found in other similar already known varieties. It must be uniform in all of its identifying characteristics. Finally, it must be stable, i.e. it must remain unchanged after successive reproductions or multiplications.

¹⁶ See: Article 28 of the Algerian law and article 6 of the Moroccan law (Dahir N°1-96-255) reproducing the content of article 6 of the UPOV 1991 convention.

Once these conditions are met, the variety must be designated by a denomination, which will be its generic designation. When protection is granted, a plant variety certificate (PVC) is issued to the breeder. The protection induces legal implications which need to be examined.

Consequences related to the rights

Once the PVC is issued, it produces a certain number of rights for the benefit of its holder for a period of protection of 20 or 25 years, depending on the case. This right is the exclusive right to exploit the variety that is the subject of the certificate. In other words, this right allows the breeder to prohibit third parties from performing certain acts on the protected variety without his/her authorization. These acts are:

- 1) production or reproduction;
- 2) conditioning for the purpose of reproduction or multiplication;
- 3) offering for sale;
- 4) sale or any other form of commercialization;
- 5) export;
- 6) import;
- 7) detention for any of the purposes mentioned in points 1 to 6. Any person wishing to undertake any of these acts on the variety is obliged to pay a royalty to the breeder, or to obtain his/her agreement.

The rights of the holder of the PVC also extend to the product of the harvest, including whole plants and parts of plants, obtained as a result of unauthorized use of breeding material of the protected variety. The same applies to products made directly from harvested material of the protected variety. This means that the breeder has the right to prohibit all the acts mentioned in the above paragraph when they involve a product of the protected variety, and a product obtained from the product of the variety, if the variety has been used without his/her authorization.

Thus, if a farmer sows wheat or uses mango plants without the consent of the breeder of either variety, the breeder can claim ownership of the wheat or mango harvested, and the product of that harvest, such as wheat flour or mango juice.¹⁷ It should be added here, however, that in the example of wheat, if the wheat and flour

17 Fondation Gaia et GRAIN. 1998. Dix bonnes raisons de ne pas adhérer à l'UPOV.
<https://grain.org/fr/article/46-ten-good-reasons-not-to-join-al-upov>

are for the farmer's own consumption, it falls within the exception of the farmer's privilege (explained below among the exceptions), and the breeder will have no right to that consumption.

In addition, the rights of the PVC holder also cover varieties that are essentially derived from the protected variety;¹⁸ varieties that are not clearly distinguishable from the protected variety; and varieties whose production requires the repeated use of the protected variety.

The owner of the PVC has the right to initiate legal proceedings against any person who performs any of the above acts without his/her consent. He/she can also pass on the PVC by inheritance, and enter into licensing agreements. But these rights are subject to restrictions allowing certain people to legally use the seed of the variety without consent under certain conditions.

Restrictions on PVC

The protection system in place in North African countries, namely the UPOV 1991 system, provides for three types of limitations to the rights conferred by the PVC, namely: exceptions to the PBR, its extinction, as well as the exploitation imposed on its holder by the public authorities for reasons of public interest.

With regard to the exceptions to the breeder's rights, they cover five categories of acts which, therefore, are not considered to be an infringement of the breeder's rights when carried out without his/her consent. These are:

- acts performed in a private setting for non-commercial purposes;¹⁹
- acts done for experimental or research purposes;²⁰

18 A variety considered as essentially derived is a variety mainly derived from an initial variety or from a variety which is itself mainly derived from the initial variety, which possesses all the characteristics of the initial variety, in particular those which make the commercial interest of the initial variety, and differs from the initial variety only by a character or a very limited number of characters, and is clearly distinguished from the initial variety. (Article 3, Algerian seed law, see also article 22 of the Tunisian law which speaks about it without defining the concept).

19 This exception is open to interpretation, but there is no provision in the national laws reviewed to define what might be meant by «non-commercial use. It is clear that subsistence farming is done «privately» and «for non-commercial purposes», but the text has provided for this practice in another exception, whereas this first exception would have been sufficient to cover it and allow farmers to continue to reseed the product obtained from using the protected variety in their own fields and for their own consumption. The details are given in this UPOV explanatory note.

20 The Algerian law adds acts performed in «the framework of the constitution of a gene bank.»

- acts done for the purpose of breeding new varieties, and the exploitation of such varieties, provided that the new variety is not essentially derived from another protected variety or that the breeding of the new variety does not require the repeated use of the protected variety
- the use by a farmer, on their own land, for propagating purposes, of the product of the harvest that they have obtained by planting, on their own land, a protected variety or a variety essentially derived from the protected variety. This exception is in recognition of the common practice of farmers to save their own crop seed produced on the farm to be sown on the same farm. This exception does not apply, however, to ornamental and floral plants.²¹

Besides the expiry of the statutory protection period (20 or 25 years depending on the case), the extinction of the rights related to the protection of new plant varieties can result from procedures of early expiry, withdrawal, or cancellation of the rights. The conditions for these cases of extinction are clarified in the national laws of the different countries, notably in articles 50 and following of the Algerian seed law, articles 28 and following of the Tunisian law, and articles 20 and following of the law 9-94 on the protection of new plant varieties in Morocco.²² The consequence is that the plant variety will enter the public domain and will be able to be exploited, even on a commercial basis, without requiring the authorization of the breeder.

The last restriction of the breeder's right concerns exploitation by the public authorities or by a third party authorized by them. This is the case of compulsory licenses or ex officio licenses. According to the relevant provisions of the analyzed laws, a compulsory license can be granted to a third party, if the protected variety has not been exploited by its owner within a period of 3 years from the date of the grant of the plant variety certificate.²³ For the ex officio license, it is granted for certain plant varieties which are of extreme importance

21 UPOV 91 refers instead to «fruit, forest and ornamental plants.» This means that a planter or logger does not have the right to reuse plants of varieties such as banana, mango or shea, without the authorization of the breeder, if these varieties are subject to a PBC, even if they are reused in their own operation.

22 Text available at: <https://wipolex-res.wipo.int/edocs/lexdocs/laws/en/ma/ma001en.pdf>

23 See articles 47 of the Algerian law, 30 and 31 of the Tunisian law, 21 to 24 of the Moroccan law.

for human or animal life or which are of interest for public health, or, in the case of Algeria, for reasons related to national food security or of importance for the national agricultural development.

2.3 Laws regulating the use of GMO seeds

All countries in the region have ratified the United Nations Cartagena Protocol on Biosafety.²⁴ However, the implementation of regulatory frameworks for the safe use of biotechnology in different areas (biosafety laws) is not yet effective in North Africa. Egypt has a biotechnology and biosafety policy, which is not a legally binding document.²⁵ The Tunisian Government has put in place a national biosafety strategy²⁶ in which it states that it has prepared a draft law on the same issue in a participatory manner. This draft law²⁷ has not yet been examined by the parliament and is therefore not yet a law in force.

This indicates that a biosafety regulatory framework that can protect the right of farmers to save and control their own seeds and to protect farmers' seed systems from contamination by genetically modified organisms (GMOs) is not yet in place in North African countries. But it can also be assumed that a country would not allow a GMO seed to enter its territory if it did not have a framework in place to regulate its use, which would be a violation of its commitments under the Cartagena Protocol.

In addition to the three categories of laws we have just examined, we can add a fourth whose application may have implications for the circulation of farmer seeds, particularly across borders between countries. These are plant protection laws that impose phytosanitary controls at the exit from and entry into a given country. Such controls can lead to the prohibition of farmers' seed entering a country if the phytosanitary requirements in force in the country concerned are strict, thus limiting trade between farmers across borders. But such cases are rare and so far farmers are able to move seeds across borders and are still mutually enriching each other.

24 cbd.int

25 Academy of International Humanitarian Law and Human Rights (Geneva Academy): Practical Handbook on Seed Rights. (2022). Not yet published, available with the author.

26 National Strategy and Action Plan on Biosafety in Tunisia : <https://bch.cbd.int/protocol/outreach/online%20forum/Guide%20strate%20gie.pdf>

27 <https://bch.cbd.int/en/database/LAW/BCH-LAW-TN-109161>

The preceding analysis makes it possible to identify the contours of the legal framework supported by the four categories of laws regulating seed activities in North Africa. It also allows us to identify the consequences that these texts have for the production and use of seeds from local, traditional farmers' varieties, as well as their contribution to the achievement of food sovereignty and agricultural resilience in North African countries. These aspects deserve to be highlighted before moving on to the proposal of elements of a legal framework favorable to farmer seeds and Farmer Seed Systems (FSS).

3. IMPLICATIONS OF SEED LEGISLATION FOR FARMERS' RIGHTS, FARMER SEED SYSTEMS AND FOOD SOVEREIGNTY


In this section, the analysis covers three elements: first, an overview of farmer seed systems in the overall context of agriculture in North African countries is presented (i), then the impacts of the analyzed laws on farmer seed systems are examined (ii) and finally, the implications of this situation for the resilience of agriculture in the region are highlighted, with a particular focus on Tunisia and Algeria as specific cases.

3.1 Farmer Seed Systems in the North African Countries' Current Agricultural Model

The state of FSS depends on the dominant agricultural model. This model varies from one country to another. Indeed, each country has its own specificities in terms of agricultural production model. Tunisia, Morocco and Algeria have inherited the French colonial foundations and local production models have been strongly transformed by colonial policies (modernization, introduction of monocultures, land and genetic heritage grabbing, forced sedentarization, etc.). After their independence, each of these countries followed a significantly different path from the others.²⁸

Tunisia, Morocco and Egypt have profoundly adopted the vision based on «food security» by encouraging certain products intended for export at the expense of food-producing agriculture. In these

28 Interview No. 2. Layla Riahi.



countries, where debt and international development cooperation guide public action, «the trap was quickly set by conditioning agricultural production systems to the doctrine of free trade in the long term and by impoverishing farmers for the benefit of investors in the agricultural sector”.²⁹

This system has merely reinforced the dependence of agriculture (seeds, other inputs, mechanics, exports), and of producers on traders and intermediaries.³⁰ In some cases, the dependence extends to food itself, as the country imports most of its food consumption. This is the case of Algeria and Egypt, which are among the largest importers of cereals in the world. If Algeria manages to cope with the situation through oil revenues, Egypt is plunging into debt.

In Tunisia, where we were able to obtain more information, producers obtain seeds from retail traders in their villages/towns and from private breeding centers. For cereals, they obtain them from the cereals office. According to a Tunisian expert, «the vast majority of farmers are fully aware of the issues related to seeds. During our field surveys, we are often informed of problems encountered, including stock shortages, poor quality seeds, skyrocketing prices, dependence on chemical inputs and pesticides and other industrial products, the spread of new diseases, etc.»³¹

This confirms the analysis made of the legal framework that governs seed activities in the countries of the region, which boils down to a clear support for the industrial model supported by the rhetoric of food security and agricultural modernization. Thus, the FSS are completely neglected since they do not benefit from a framework to thrive. According to some observers, the return to farmer seeds implies a rather risky and costly transition for producers whose incomes depend solely on the farm, as it entails adaptation expenses, a drop in productivity, marketing problems, and requires an experimental phase.

Nonetheless, in the different countries, traditional practices and models are still in place. They are practiced by small farmers, agropastoralists, fishermen, and peasants who produce for the

29 Ibid. see also: Saker El Nour, Towards a just agricultural transition in North Africa. 15 Dec. 2021. <https://longreads.tni.org/towards-a-just-agricultural-transition-in-north-africa>

30 Interview Layla Riahi. Footnote 26.

31 Ibid.

local market. These remain completely marginalized by public policies. This is illustrated in the case of Tunisia by: informal and precarious work, the absence of social security coverage, the non-recognition of women's work, no funding, difficulties in accessing land, water, etc.³²

Currently, a farmers' movement is emerging in Tunisia in favor of a return to farmer seeds. This emergence has been facilitated by the sustained action of civil society after the revolution, notably associations such as the Tunisian Association of Permaculture (ATP), the Working Group for Food Sovereignty (GTSA), small networks of local seed producers, some committed researchers, etc. This movement is beginning to gain ground in the public debate and to take up the cause on different fronts, in the media, at the level of the administration, of communities, etc. However, it has not managed to impose a real change in policies.

The return to farmers' seeds is motivated by the conviction that the whole formal seed system is not sustainable. The search for farmers' seeds, the exchange and collective action for the constitution of seed banks, are part of the preparation for a transition in which some farmers are committed by experience, others by intuition.

3.2 Impacts of seed laws on farmers' rights and farmer seed systems

In terms of impacts on farmer seed systems, we can note, among others, the following elements:

- Traditional and local varieties (also called 'farmers' varieties') used, adapted and improved by farmers do not meet the criteria for registration in the catalog (the DUS criteria). Therefore, farmer seeds from these varieties are not allowed to be marketed. In some cases, these seeds are banned from production altogether, and their production can lead to sanctions for those who do so. Fortunately, we have not noted any provision for prohibition and punishment in the laws analyzed in the North Africa region. These laws merely ignore them. But a strict interpretation of the laws may mean that the provision removing the qualification of «seed» from any seed, plant or part of a plant multiplied outside

32 Ibid.

the rules and norms laid down entails the prohibition of the production of so-called farmer's seed.³³

- Given current practices in the countries whose laws have been studied (Algeria, Tunisia and Morocco), it can be said that the absence of any legal provisions on the fate of farmer seed systems is a kind of «legal tolerance»³⁴ for farmers' seed activities outside the existing legal framework. Indeed, in order to avoid confusion and to recognize and support farmer seed systems, it is necessary to set up a specific regime for the reproduction and dissemination of local, traditional and farmer seeds. A draft text has been initiated in Tunisia by the national gene bank in this sense,³⁵ but it should be reviewed in the light of the real needs of farmers and what would better benefit the country. This initiative is commendable and is a big step, but it would be much better if the text were submitted to the appraisal of all stakeholders, with the farmers in the lead. This would improve both the content and the approach in terms of legitimacy.
- The production and dissemination of seeds within the framework of farmer seed systems do not comply with the commercial logic of the industrial seed system. The segmentation of this system in order to create a value chain and dissociate the different functions does not correspond to the spirit of autonomy and self-management advocated by farmers in their quest to protect their rights to produce their seeds and to distribute them in their networks and on local markets. In the classical 'formal' seed system, farmers are considered as end-users of seeds considered as a commercial product. In contrast, in farmer seed systems, seed is a common good that is the basis of food production and should be accessible to all producers. A specific regime is needed to allow such a system to flourish.

33 Un farmer was arrested by the Tunisian authorities in 2022 for selling farmer seeds. This confirms this possible interpretation of the provision mentioned. To see: <https://nawaat.org/2022/11/23/les-graines-paysannes-en-tunisie-un-issue-de-souverainete-nationale/>

34 With the interpellation above, we can say that tolerance is gradually disappearing and that the authorities will want to strictly apply the texts.

35 The author of this report had the opportunity to participate in an online meeting organized by the Tunisian Association of Permaculture (ATP) during which the gene bank presented the text under development.

- The non-recognition of farmer seed systems and failure to protect them exposes farmer breeding and production practices and innovations to discrimination and injustice based on a perception that they are informal and not scientifically proven. Thus, the State's technical and/or financial support will only be granted to the so-called «formal» system, which will be promoted, and the so-called «informal» system will be seen as «archaic» and to be suppressed in the name of development and modernization of agriculture and productivity. But in spite of this, farmers continue to get organized and to produce their seeds and to disseminate them in the name of food sovereignty. This 'resistance' or survival of what is being suppressed should be a wake-up call to policy makers and bring the necessary support to farmer seed systems given their capacity to respond to the needs of a resilient agriculture in the face of various shocks, including climate change.
- The recognition of plant variety protection based on the UPOV 1991 model does not make it easy for states to fully recognize the rights of farmers over their seeds, including their right to save, use, exchange and sell seeds and other multiplication materials from their fields. It is important that North African governments review the laws on these issues and bring them in line with the prevailing realities, marked in particular by a strong presence of family and small-scale farming.³⁶

Following this analysis of the seed laws and the regime they set up, it is noted that they are not adapted to FSS, as they comply with a market logic advocating rules and standards intended more for a marketing product than for a basic resource for food production. Based on this logic, seed is considered as a product accessible on the market and which must, therefore, have a «good quality» that the State guarantees in order to protect «the consumer» (the farmer) and to ensure access to so-called quality seed. In other words, seeds that do not meet the standards set are considered to be of «poor quality» and are excluded from production and distribution. The other factor behind the law is the desire to protect the licensed producer from «unfair competition» by non-licensed producers.

36 Marzin et al. 2016. L'Agriculture familiale à petite échelle au proche et moyen orient Synthèse. <https://tinyurl.com/mrxkzcfh>

Based on this rationale, these seed laws are supposed to ensure the food security of the various countries that implement them. But surprisingly, these laws do not address the notion of seed security, including the element of access defined as «the ability to acquire seed through cash purchase, exchange, loan, barter, or the use of one's status or influence within a social network,»³⁷ and that of plant breeding suitability and preference defined as «the ability of [farmers] to obtain seed which has the characteristics they prefer.»³⁸

Within this context, seed is not simply a commercial product, but rather an essential element of production and nutrition for farmers, their families and their communities. Thus, the seed issue is a human rights issue for peasants, and closely linked to the right to food. This was recognized by the States with the adoption in December 2018, of the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas (UNDROP).³⁹

Thus, defining parameters, standards and quality criteria as well as the rules governing the circulation of seeds should be established on the basis of the socio-cultural realities of African countries, and the model and agricultural practices that prevail there. This is why it is essential to recognize farmer seed systems in order to better protect farmers' rights over their seeds and promote biodiversity. These farmer seed systems include all the knowledge, practices and rules collectively developed by farmers, based on their habits and customs for the selection, production, conservation, use, quality assurance and circulation, in their networks and on local

37 FAO, 2016. Étude sur la sécurité semencière : Guide du praticien.
<https://www.fao.org/3/i5548f/i5548f.pdf>

38 Ibid.

39 <https://digitallibrary.un.org/record/1650694?ln=fr>. 48 African States, including the countries of North Africa, voted in favor of the adoption of the UNDROP and 3 abstained, namely: Cameroon, Ethiopia and Lesotho. The author recommends the use of text in English. The French version does not reproduce the correct expressions of legal language. Examples: "peasant seed systems" is translated as " systèmes de semences paysannes " (Article 19.6) instead of " systèmes semenciers paysans "; "states shall recognize..." such as "les Etats reconnaîtront..." (Article 19.5) instead of " les Etats reconnaissent " or " les Etats doivent reconnaître ", which is the commonly used form, the principle being that the "shall" in English indicates "the obligation to do" (and not the future simple) unlike "should" which marks "the encouragement or recommendation to do".

markets, of seeds from their fields.⁴⁰

These rules, practices and knowledge also allow the dynamic management and maintenance of agricultural biodiversity, as well as the autonomous production of food by farmers for their families, communities and the country. The recognition of FSS should be accompanied by the improvement of varieties used by farmers through collaboration between farmers and researchers and with the support of public authorities. The following section presents the elements of a legal framework that could lead to the recognition of farmer seed systems in order to make agriculture in North Africa more resilient and diversified. Before doing so, however, it is important to make the link between seeds and this desired agricultural model.

3.3 Low resilience of agricultural and food systems and the need for change

The seed laws in force in North African countries are part of a more global policy of transforming the agricultural production systems of these countries, which has been in place since the colonial period, but which was extended in a sustained manner by the Structural Adjustment Programs (SAPs) initiated by the World Bank and the International Monetary Fund (IMF) in the 1980s. Through the SAPs, these international financial institutions proposed liberalization policies to the States in the productive sectors, particularly in agriculture, under the pretext of modernizing them and ensuring their productivity. Food security was promised as well as an increase in state revenues through the export of certain products. The result was an industrial agricultural model oriented towards the market and advocating the disengagement of the State.⁴¹

In the field of seeds, improved and hybrid varieties were introduced and distributed free of charge to farmers. The use of these varieties

40 This definition is the result of a collective reflection by Malian farmers and their allies within the framework of the «Seeds, Standards and Farmers - SNP» process (SNP process). It has been incorporated into the legal framework proposed by AFSA in support of FSS and biodiversity. The author of this report, who also developed the AFSA framework, is a member of the technical team assisting with this process, which has resulted in a consensus framework for the recognition of peasant seed systems in seed policy and eventually in law. The process started in 2016 and has made it possible to integrate this recognition into the draft seed policy, which is still on the government's table for adoption. This article gives more details.

41 See: Ayeb H. and Bush R. 2019. Food Insecurity and Revolution in the Middle East and North Africa: The agrarian question in Egypt and Tunisia. AnthemPress.

for 30 years gradually led to the loss of local varieties and farmers' know-how.⁴² To accompany the use of these varieties and their local production, laws were introduced on the model of those in force in the countries of the North with, at the center, the DUS standards to stabilize and standardize the varieties. This standardization only reinforced the decline in genetic diversity that had begun when local varieties in use before liberalization were abandoned. These local varieties, which represented about 65% of all varieties in the 1970s, represent only 5% today. In Tunisia «For example: we have gone from 50 varieties of wheat in the 40s to only 5 varieties of wheat today.»⁴³

However, this trend is not unique to North African countries. As mentioned above, it is a global movement that has imposed a single model on countries, the limitations of which have become apparent over time. While it has brought a great deal of product to the marketplace, the industrial agricultural model has also produced a large number of negative effects, including: widespread degradation of land, water and ecosystems; high greenhouse gas emissions; loss of biodiversity; hunger, malnutrition and food-related diseases; and the depletion of farmers' livelihoods in all regions of the world.⁴⁴

A model that negatively impacts the resilience of agri-food systems

This model is characterized by standardization and reliance on homogeneous «improved» varieties and hybrids, chemical fertilizers, pesticides, and the preventive use of antibiotics. It systematically produces negative outcomes as described above and increases vulnerabilities.⁴⁵ Furthermore, it creates a food system that only serves a limited number of actors and strengthens their economic and political power and ability to influence the governance of food systems and, through this, to impede comprehensive reform.

42 Interview Aymen Amayed, Observatoire de la Souveraineté Alimentaire et de l'Environnement (Tunisie). See as well: <https://houloul.org/fr/2020/12/12/les-semences-locales-une-histoire-de-depossession/>

43 Teycir Ben Naser. Les graines paysannes en Tunisie, un enjeu de souveraineté nationale. <https://nawaat.org/2022/11/23/les-graines-paysannes-en-tunisie-un-issu-de-souverainete-nationale/>

44 IPES-Food (Panel international d'experts sur les systèmes alimentaires durables). 2016. De l'Uniformité à la Diversité: Changer de paradigme pour passer de l'agriculture industrielle à des systèmes agroécologiques diversifiés. http://www.ipes-food.org/images/Reports/UniformityToDiversity_FullReport.pdf

45 Ibid.

Standardization through the use of hybrid seeds and monocultures is the very basis of the non-resilience of the system. It hinders adaptation to climate change, in contrast to farmers' varieties, which can easily adapt to difficult environmental conditions and do not depend on the use of chemical fertilizers or pesticides. Hybrids are also expensive, non-renewable and require a lot of inputs that pollute and deplete the soil. This dependence affects resilience at different scales: at the farm, regional and national levels. Monocultures also expose the system to economic, social and environmental fragility. In the event of disease, a drop in prices, an environmental disaster or a break in world trade chains, a farming unit that relies on a single product finds itself in a serious crisis that very often leads to abandoning the activity.


Through these two examples, we can see that the production model plays a major role in provoking crises on the one hand, and in reducing resilience to crises on the other, whether they are endogenous or exogenous.

The need for a more resilient model

The resilience of a production system depends on three essential factors: (i) the wise use of resources, (ii) the adaptation of production to the climate and food culture, and (iii) the capacity of the agricultural fabric to react in solidarity to crises. The conventional model leads to the monopolization of resources and the devaluation of work, which in turn leads to social tensions. It tends to increase the productivity of certain products without taking into account the environmental and climate change costs, and without any connection to the local market. This deteriorates the environment and depletes resources while at the same time not satisfying the social function of peasant farming, which is to feed the population. Finally, it tends to transform small farmers into «agricultural workers» and ends up dispossessing them of their goods and the fruits of their labor.⁴⁶

Reforms are needed to create a system that is favorable to the main actors of agricultural production, the farmers and their families, to the environment and to biodiversity, and that benefits the country in terms of access to healthy food, that is locally managed and protected from the hazards of the climate and the international environment, such as the COVID-19 and the war in Ukraine. This calls for a fundamentally different agricultural model, based on the

46 Interview with Layla Riahi.



diversification of farms and agricultural landscapes, the replacement of chemical inputs, the optimization of biodiversity and interactions between different species. On this new basis, integrated strategies would be created, focusing on long-term soil fertility, sustainable agroecosystems, and secure livelihoods. Such a model is proposed by the International Panel of Experts on Sustainable Food Systems (IPES-Food) under the term «diversified agroecological systems».⁴⁷

Finally, the proposed model should be rooted in human rights and have as its goal the satisfaction of people's needs with a focus on the vulnerable and marginalized, including peasants and rural workers. This can be achieved by making food sovereignty the guiding principle of such a model. Food sovereignty «places food producers, distributors and consumers at the heart of food systems and policies instead of the demands of markets and transnationals [...] It represents a strategy for resisting and dismantling corporate trade and the current food regime [and] provides guidance for food, agriculture, fisheries and livestock systems to be defined by local producers.»⁴⁸


There is ample evidence that diversified agroecological systems are as efficient as industrial agriculture in terms of total production, and superior in terms of resilience to environmental stresses, and that they allow an increase in agricultural yields in regions where food security is not assured, thus contributing to the realization of the right to food.⁴⁹ These diversified agroecological systems could also pave the way for increased food diversification and overall improved health. The current study aims to support efforts to move towards such systems in North Africa, focusing on aspects related to seed production and dissemination to support agricultural resilience and sustainability in the countries of the region.

There has already been a significant awareness among the populations in the different countries of the region. We note the existence of food sovereignty movements producing knowledge to raise awareness among the public and decision-makers on the issues related to agricultural policy choices and the need for a paradigm shift. We can also note the awareness of certain parts of the central administration

47 IPES-Food. Note 41. See also: Saker El Nour. Footnote 27.

48 Declaration of Nyéléni (27 February 2007). <https://nyeleni.org/spip.php?article286>

49 Olivier De Schutter, Report of the Special Rapporteur on the Right to Food, 20 December 2010, General Assembly of the United Nations. A/HRC/16/49. <https://digitallibrary.un.org/record/704715?ln=fr>



that are starting to take steps towards this change. In Tunisia, for example, the national gene bank has initiated the recovery of local varieties and their reproduction, involving the farmers. This initiative has made it possible to recover a large number of local varieties and to reproduce them in collaboration with farmers in different regions. The same gene bank has also initiated a draft text on the recognition and distribution of local varieties, which is awaiting input from the various stakeholders and is now in the process of being adopted and put into effect.

While these initiatives are to be welcomed and encouraged, it should be noted that they are insufficient and that the desired change needs more effort to gain momentum. These efforts are expected from all levels, starting with the decision-making level. Since decisions must be taken in accordance with the stakeholders' aspirations, it would be appropriate for the farmers themselves to take the lead, with the support and backing of civil society organizations. We dare, therefore, to hope that this report as well as the elements of content for a legal framework for the recognition and promotion of farmer seed systems will provide solid arguments to these key actors.

4. ELEMENTS OF A LEGAL TEXT SUPPORTING FARMER SEED SYSTEMS

Supporting farmer seed systems and promoting the use of farmer seed requires the development of normative frameworks that allow these systems to exist, function fully and thrive as production and conservation systems. The rules and norms of the commercial seed system are not adapted to the nature and logic of FSS seed systems. They therefore need their own legal framework, one that is autonomous and different from the commercial system. Such a regime must be developed by farmers' organizations with the support of state agencies as suggested by the AFSA in the legal framework it proposes as part of its advocacy support to farmers' organizations and their allies.

In this section, we suggest the essential elements of a normative framework that can be used in the North African context for the protection of FSS and the promotion of farmers' seeds. It is inspired by repeated proposals from farmers and the networks that support them in their regular advocacy, as well as by the following key

references:

- the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas (UNDROP);
- the legal framework proposed by AFSA for the recognition and promotion of farmer seed systems and biodiversity
- the practical manual of the Academy of Geneva for the realization of the right to seeds in Africa.

The normative framework should be based on the following elements:

4.1. A contextual reminder as a preamble

Seed laws must recognize and support the role played by farmers in conserving and enhancing agrobiodiversity. The preamble should open with such a reminder and provide, as in the explanatory memorandum of a law, the contextual elements justifying the development of a normative framework and the establishment of a specific regime applicable to activities related to farmer seed systems.

The framework should, before establishing the substantive rules, set out the preliminary aspects as in any legal text, to clarify the purpose of the framework and outline its scope, set out the principles guiding its application and define the terms used. It is important to recall at this level the break with the semantics used in the commercial system in order to avoid any confusion and to ensure the autonomy of the FSS regime from that applicable to the commercial system. The language chosen should reflect the reality of farmers while ensuring the legal nature of the text.

For example, the framework proposed by AFSA includes a section on definitions where the following terms are mentioned: agro-ecology; farmer's register that establishes a voluntary seed registration with the purpose of documentation rather than authorization of a category of varieties as is the case with the catalog in the commercial system; «circulation» instead of commercialization that puts more emphasis on the market and standards that exclude certain categories. This term is defined in such a way as to include the definition of «non-commercial use» which, in the commercial system, refers to acts that can be carried out on a variety without being subject to prohibition

and sanction, thus guaranteeing the freedom of farmers to continue their seed practices. It is precisely these different practices that are included in the definition of «circulation».⁵⁰

The substantial part of the framework is intended to clearly define the key aspects of a farmer seed system, namely: (i) the organizational and management framework of the farmer seed system, (ii) the rules for quality assurance of seed in farmer seed systems; (iii) the rules setting the conditions for selection, production and circulation of seed in farmer seed systems, (iv) the promotion of farmer participation in decision making and the protection of farmer innovations and knowledge, as well as any other aspects identified as relevant by farmers based on the national or international context at the time of the development of the framework.

The following sub-sections provide content elements for these different aspects based on the references mentioned above.

4.2. A framework for the organization and management of farmer seed systems

Any legal framework aiming at protecting farmers' seed rights and promoting their seed systems should be based on a set of tools and approaches allowing actors, including the State and farmers themselves, to achieve this objective. Without being exhaustive, the following tools are relevant to ensure the organization, coordination, management and development of seed activities in farmer-led systems: (a) the consultation framework on plant genetic resources, (b) the regional farmers' seed committees, (c) the regional farmers' registers, and (d) the National Seed Fund (NSF).

The National Consultation Framework on Plant Genetic Resources

As opposed to a centralized institution managing seed activities in the commercial seed system in North African countries, the institutional framework for the coordination of activities in FSS should be multi-stakeholder and farmer-driven. The name may be different from the one proposed in the AFSA framework, but it is

⁵⁰ The AFSA framework defines it as follows: «any act undertaken by farmers to facilitate other farmers' access to seed, including donation, barter, sale, exchange, and any other form of collective use based on the movement of seed within farmers' networks»



a platform gathering relevant actors on seed issues yet with the specificity that it is oriented on diversified agroecological systems as described above. Thus, the platform should be composed of representatives of relevant public bodies in terms of plant genetic resources management, representatives of farmers and people working in rural areas, CSOs and any other actor deemed relevant.


The setting up of the consultation framework is done following a consultation among the different actors mentioned. The State, as the public policy maker and guarantor of farmers' and citizens' rights, should be responsible for initiating this process and should bear the related costs. Farmers and other stakeholders will designate their respective representatives to be members. Once constituted, the framework shall establish its operating rules as well as its organs, including a secretariat to be run by a farmer's organization or a civil society organization designated in a consensual manner. The operating costs of the framework should be covered by the national budget.

The purpose of the framework will be to implement the State's policy on the promotion of farmer seed systems, as well as to coordinate the monitoring of the development of these systems in the country by making proposals for their improvement and strengthening. This includes supporting farmers in the characterization of farmer seeds, as well as defining methods for integrating participatory selection into plant breeding programs of public research units.

The content of the consultation framework's missions should be discussed by the various stakeholders at the national level once the principle of a text for the recognition and promotion of FSS has been accepted.

Regional Farmers' Seed Committees

The Regional Farmers' Seed Committees (RFSC) are created within the agro-ecological zones of the country in which they operate. These are networks composed of farmers, associations, public and private entities, researchers, universities, etc. that are active in the field of agricultural biodiversity. Their role is to ensure the safeguarding, multiplication and dissemination of seed or of genetic material registered in a regional farmers' register.



The committees should be viewed as frameworks for consultation and coordination at a decentralized level. Thus, they will not replace the grassroots farmers' organizations and associations that will continue to produce seeds and preserve varieties. The Committees will only bring them together and allow them to exchange knowledge and seeds. This networking allows farmers to be more organized, to be in contact with other actors, including the State, in order to define the rules that will govern farmer seed systems. These rules are harmonized, not standardized, at the level of the national consultation framework for their ease of application at the national level.

These committees are chaired by the collective of farmers active in the region. This collective is the driving force behind their establishment with the support of the State.

Regional farmers' registers

The Regional Farmers' Register (RFR) makes it possible to identify the farmers' varieties found in a given agro-ecological region in order to ensure greater traceability of the varieties in use in the region concerned. Registration of varieties in the farmers' register is voluntary and free of charge. These registers are kept by the regional committees, which ensure their conservation and updating. Registration is made by a farmers' collective (an association, a network, etc.) and cannot imply an exclusive right for this collective.

One proposal is to establish the committees and registers geographically at the level of agro-ecological regions. In countries where the distribution of the territory in agro-ecological zones does not allow for it, or if this distribution does not exist, the committees and registers can be set up at the level of the administrative regions of the country.

The National Seed Fund

A National Seed Fund should be established to support farmers' seed activities and the conservation and sustainable use of plant genetic resources. The Fund will be set up by the government in consultation with farmers and relevant stakeholders, including public research institutions. Together, these actors will define the roles to be assigned to this fund for the promotion of FSS.

4.3. Rules for seed quality assurance in farmer seed systems

The rules for seed quality assurance in FSS revolve around the autonomy of farmers to organize the parameters of this quality and define its rules. Such a principle should be the basis for a legal text that recognizes and promotes FSS. Thus, it grants farmers the freedom to collectively adopt rules dedicated to guaranteeing the quality of the seeds they put into circulation within their collectives and networks, and on local markets. The parameters to be taken into account at this level include:

- (i) germination capacity,
- (ii) sanitary quality,
- (iii) agronomic quality,
- (iv) organoleptic quality (taste),
- (v) any other quality deemed relevant by farmers according to their ecological and socio-cultural context.

The proposed AFSA framework is based on the recognition of farmers' practices within their self-managed seed systems. It also aims to enable them to improve these practices with the support of other actors, including the State through the country's scientific, agronomic, social and environmental research units. The text to be adopted does not define the rules, but rather provides a framework for farmers to conduct their seed activities with the support of all actors and in the interest of the whole nation.

The framework proposed by AFSA has also outlined guidelines for the guarantee system to be put in place within FSS. This proposal is inspired by a participatory guarantee system⁵¹ and allows for a harmonized approach despite the freedom of farmers to define quality guarantee rules. The content elements proposed by AFSA are as follows:

- Having a common vision: this means that the farmers concerned belong to the same organization, to a collective or to a local network with close links and common principles and values;

51 See: IFOAM. Systèmes de garantie participatifs : vision idéale.
<https://www.ifoam.bio/sites/default/files/2021-04/systemesdegarantieparticipatifs-visionideale.pdf>

- Base the work on trust, equality and transparency and materialize this by :
 - a commitment of the farmers through a charter or any type of collective agreement,
 - rules defined collectively with the definition of suitable quality criteria,
 - verification mechanisms with a well documented system for managing procedures and clear consequences in the event of non-compliance,
 - A label or logo, etc.
- Participation and collective learning.

Rules can be defined at the level of regional committees and shared at the national consultation framework, which can harmonize approaches or simply record them in a self-managed seed system database. The option to be chosen is a collaborative decision made within the national framework. Stakeholders also have the flexibility to imagine an alternative mode of intervention for the national dialogue framework.

4.4. Rules setting seed selection, production and circulation conditions within farmer seed systems

The distinctive feature of FSS is that seed production does not constitute an activity isolated from agricultural production. Seeds are selected in the farmer's field and reused from year to year. The framework to be developed should preserve this practice without excluding the possibility for farmers and their research allies to develop it while keeping the fundamental principles, namely: the farmer's autonomy in seed production, the freedom for other farmers to access the seed produced without constraints, as well as the collaboration with other farmers to establish collective rules for seed production and circulation.

To break with the conventional or commercial system, it is important that the framework confirms this autonomy of seed production. To do so, no specific conditions should be imposed on the farmer for seed production. It is up to the farmers themselves to enforce

collectively adopted rules. Article 11 (paragraph 1) of AFSA's proposed framework can be understood in this way:

The selection, production and multiplication of farmers' seeds take place in the farmers' fields and are not subject to any form of authorization or registration requirement, either for the seed or for the farmer carrying out these activities. They are done freely based on farmers' knowledge and practices and rules that farmers develop within their various collectives according to their habits and customs.

In addition, the framework needs to include a provision that protects the rights of farmers from other seed laws or laws affecting seeds so that they are not deprived of their rights to sow, harvest, select, save, re-sow, exchange and sell seeds from their fields as required by Article 9 of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA).⁵² This right is now a human right integrated in the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas (UNDROP). This means that states cannot use any excuse for not respecting this right.

It should also be recognized that the production and use of seeds in FSS contributes to the conservation of agricultural biodiversity in situ, as well as to the conservation of local knowledge relevant to such conservation in accordance with Article 8(j) of the CBD (reproduced in Article 9.2.a of the ITPGRFA). As such, the framework should recognize the right of farmers to save their seeds in accordance with their agricultural, cultural and customary practices. They should also have the freedom to create and maintain conservation and storage spaces adapted to their context and to give them the name that suits their context. These are community seed banks or seed diversity centers, depending on the context. In keeping with the logic of freedom and autonomy granted to farmers, rules defined by farmers should govern access to these conservation spaces and define the conditions under which this access can be granted.

Finally, the seed produced by a farmer or farmer collective should be able to circulate between different farmer networks or on local markets to guarantee access to other farmers. As already mentioned,

⁵² <https://www.fao.org/3/i0510f/i0510f.pdf>

the term chosen by the AFSA framework, borrowed from the SNP process (Semences, Normes et Paysans) in Mali, is «circulation». It includes giving, exchanging, selling and any other act that allows a farmer to ensure another farmer's access to the seed. To protect these farmers' practices and ensure that they are not subject to any form of prohibition, the AFSA framework states the following:

The above-mentioned acts are considered to be mutual aid or solidarity between farmers and do not constitute commercial transactions. As such, they cannot be prohibited, subject to registration for farmers, or give rise to the payment of a fee under any other legal provision in force in the country.

It is also necessary to discuss with the relevant authorities on the best formula for cross-border circulation of local and traditional seeds. Is it preferable to remain within the ITPGRFA framework or to set up a simplified procedure to facilitate access to these seeds for farmers in other countries? The AFSA framework has taken the option of a simplified procedure. But it could be accompanied by the principle of reciprocity.

The last point addressed in the AFSA legal framework with regard to seed activities is the protection of FSS seed from contamination by genetically modified organisms (GMOs). It highlights the obligation of the State under the precautionary and preventive principles to protect farmers, the environment and the general public from the risks associated with the introduction of GMOs. It indicates a number of elements to be taken into account when the State decides to adopt a biosafety law, in consultation with farmers and other stakeholders, namely

The obligation of a prior assessment of the impacts and risks linked to GMOs, along with a follow-up;

- Protection of traditional crops from contamination;
- Prohibition of open field trials,
- Strict rules related to the segregation, traceability and labeling of GM seeds.
- Recognizing the possibility of declaring «GMO-free zones» where the cultivation of GMO varieties will be prohibited, and to put in place adequate measures to prevent the contamination of these zones.

4.5. Promoting farmers' participation in decision making and protecting farmers' innovations and knowledge

Farmers have the right to participate in decision making in the agricultural sector in general and in seed issues in particular. It is important that the text to be adopted in North African countries integrates this right and makes it an obligation for the State (the government). It can be inspired by Article 9.2.c of the ITPGRFA as well as item 15 of the AFSA framework. This participation requires the provision of clear information in the appropriate language, preferably chosen by the farmers, to enable them to provide an informed opinion in the decision-making process.

The text should also include a provision to promote traditional knowledge held by farmers, as well as their own innovations and practices, which are essential to the development and maintenance of biodiversity. There should also be access to and sharing of benefits from the use of this knowledge to ensure that farmers benefit from the use of their knowledge by third parties. In addition, it is necessary to set up a technical and financial support mechanism dedicated to the promotion of farmer innovation and the maintenance of farmer practices that promote the sustainable use of agricultural biodiversity. The establishment of such a mechanism is done after consultation with the State and other actors, with farmers as a central player.

4.6. Other considerations

A text on the recognition and promotion of FSS and biodiversity has no fixed content. Its content should mainly be derived from the upstream diagnosis that identifies the major challenges and problems to which this text should find solutions. It is therefore important that the development of the framework is prepared after a thorough and collective analysis of the problems faced by farmers in the context of FSS. This ensures that the texts consulted are better adapted and that the relevant aspects from the references consulted are included.

CONCLUSION


The current study is set within the framework of the revival of farmer seed systems, as well as the transition to a more just production model that takes into account human rights and the regeneration of biodiversity. This agroecological transition is built upon several elements, however we can highlight three fundamental pillars: (i) food sovereignty, (ii) peasant agroecology, and (iii) farmer seed systems (autonomous and localized).⁵³ Each of these pillars is driven by clear principles that guide the creation of this agricultural project, which is also a social project.

Our reflection has focused on the third pillar, but it is important to remember that the promotion and protection of FSS is linked to the promotion of the other aspects of the agro-ecological transition. It is therefore up to the actors to build this project in a coherent manner and to seek the support or assistance of the authorities as appropriate. The different actors, networks and initiatives currently operating in North African countries offer hope that such a project can be carried out.⁵⁴ Advocacy for the establishment of a legal framework that recognizes and protects FSS goes hand in hand with concrete actions for the production, characterization and dissemination of seeds in these systems. It is also necessary to work with both public and private agricultural research to set up participatory research programs focused on the needs of farmers and society in general.

Finally, the approach must be centered on addressing the issue of human rights highlighting the UN Declaration on the Rights of Peasants and Other People Working in Rural Areas, notably its article 19 which focuses on the right to seeds and the obligation for States to «take appropriate measures to «support peasant seed systems», and «promote the use of peasant seeds and agrobiodiversity». All North African countries voted in favor of the declaration, and must respect (i.e. refrain from violating) the rights of farmers to use their seeds and adopt rules for their production and dissemination within their networks according to their practices, habits and customs.

53 These elements are developed in detail by Robert Ali Brac de la Perrière in his book: *Semences Paysannes, Plantes de Demain*. 2014. Ed. Charles Léopold Meyer. They fit well into the three concepts defining agroecology in the above-mentioned article by Saker El Nour, namely: knowledge production, social movements, peasant practices.

54 See S. El Nour who draws up a non-exhaustive list of actors in the different countries.



North African states must also protect farmers' rights to seeds. This means that they must take measures to prevent the actions of third parties from negatively impacting these rights. In addition, they must realize them, i.e., «take promptly the legislative, administrative and other measures required for their progressive realization» in accordance with Article 2 of the declaration.

The objective of the proposals put forward in this report, as well as the underlying analysis, are intended to provide support to States' efforts towards the realization of peasants' rights.

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Annex 1


Interview Guide

Introduction by the researcher (context and objective of the study, etc.)

Information about the interviewee

Issues

1. What do you think is the dominant agricultural model in North Africa? and In your country?
2. What role does food sovereignty play in the agricultural policies of your country? What do you know about other countries?
3. What is the impact of the current model on the deterioration of the agricultural system and the loss of its resilience in the face of crises (COVID-19, drought, the war in Ukraine, etc.)?
4. How does the issue of seeds play out in this agricultural model? Can you describe how my farmers access seeds?
 - a. What is the impact of seed regulation on farmers' seed systems and their resilience?
 - b. If the impact is negative: How are farmers pushed to abandon their seed systems?



5. What position do farmers' seeds have in applicable legal frameworks?

6. Do you think that agricultural policies and practices support food sovereignty? Please illustrate your answer with examples.

7. How can farmer-managed seed systems support small-scale agroecological production and food sovereignty?

8. What do you think needs to change for policies and practices to be in line with the vision of food sovereignty? Please make concrete proposals, especially in the area of seeds.

the 1990s, the number of people who have been infected with HIV has increased in almost every country in the world. The number of people who have died of AIDS has also increased in almost every country in the world. The number of people who are living with HIV/AIDS is also increasing in almost every country in the world.

The spread of HIV/AIDS is a global health crisis. It is a crisis that has no borders. It is a crisis that affects people of all ages, all ethnicities, and all social classes. It is a crisis that has the potential to destroy the lives of millions of people.

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