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**Promotion and protection of all human rights, civil,  
political, economic, social and cultural rights,  
including the right to development**

## **Right to seeds: custodianship, enclosure and resistance**

### **Report of the Working Group on the rights of peasants and other people working in rural areas**

#### *Summary*

In the present report, submitted to the Human Rights Council pursuant to Council resolution 54/9, the Working Group on the rights of peasants and other people working in rural areas examines the existing seeds governance landscape and the extent to which it supports or undermines the realization of the right to seeds and identifies the principal challenges faced by rights holders under the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas in exercising this right. The Working Group presents concrete actions and practices that have reinforced the individual and collective rights of peasants to save, use, exchange and sell their farm-saved seed or propagating material.



## I. Introduction

1. Seeds are both life and the promise of life. Almost all the food consumed by the world's people comes from or is associated with seeds. Seeds are foundational to food systems, agricultural and natural biodiversity, and rural cultures and livelihoods. Seeds and planting materials of traditional varieties, landraces, cultivars, crop wild relatives, wild plants and tree species are at the centre of plant genetic resources for food and agriculture and forest genetic resources.<sup>1</sup> They contain the genetic diversity necessary to enhance resilience to pests, diseases, environmental degradation and climate variability and to ensure the availability of food, fibre, fodder, fuel, medicines and myriad materials for everyday life for present and future generations. They are intertwined with cultural identities and heritage, social relations, spiritual practices and ceremonies. Seeds are also at the forefront of competing claims from different actors as to their status as ancestral legacies, *res communis*, collective heritage, national sovereignty and private property.

2. In the present report, the Working Group examines the importance and centrality of the right to seeds in the lives of rights holders under the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas, in ensuring agricultural and natural biodiversity, healthy environments and sustainable food systems for all peoples. The report assesses the effects of legal, regulatory, social, economic, political and environmental pressures on rights holders and approaches seeds as biocultural commons under the custodianship of peasants.

3. The report is based on submissions from States, civil society organizations, peasants, Indigenous Peoples and researchers in response to the Working Group's call for input on the topic and on pertinent data from inputs received in response to previous calls for input.<sup>2</sup> The Working Group also drew on past reports by the special procedures of the Human Rights Council and scientific and civil society literature. It also carried out consultations with organizations and communities from Africa, Latin America and South-East Asia.

4. The United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas recognizes the incalculable contributions of peasants and other people working in rural areas to the development of agrobiodiversity, and the conservation of the biodiversity, ecosystems and territories on which life depends. As stated in article 1, the Declaration applies to peasants, and their dependent family members, engaged alone, or in association with others or as a community, in small-scale farming, livestock raising, pastoralism, fishing, forestry, hunting or gathering, or related handicrafts; to Indigenous Peoples<sup>3</sup> and transhumant, nomadic, semi-nomadic and landless communities engaged in these activities; and to hired, migrant (regardless of status) and seasonal workers.

<sup>1</sup> See <https://www.fao.org/agriculture/crops/thematic-sitemap/theme/compendium/tools-guidelines/what-are-seed-systems/en/>; Food and Agriculture Organization of the United Nations (FAO), *The Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture*, FAO Commission on Genetic Resources for Food and Agriculture Assessments (Rome, 2025); and FAO, *The Second Report on the State of the World's Forest Genetic Resources*, FAO Commission on Genetic Resources for Food and Agriculture Assessments (Rome, 2025).

<sup>2</sup> Throughout the report, information received in response to the Working Group's calls for inputs will be referenced and footnoted as "Submission received by the Working Group". The submissions can be found on the Working Group's web page, at <https://www.ohchr.org/en/calls-for-input/2026/right-seeds>. Due to word-count constraints, it is not specified in each case which State, United Nations entity, regional or national organization, civil society organization or individual submitted the input.

<sup>3</sup> Where the rights, interests or activities of Indigenous Peoples are engaged, the specific framework under the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas, the International Labour Organization (ILO) Indigenous and Tribal Peoples Convention, 1989 (No. 169), and related instruments applies and prevails, in accordance with the international law principle of *lex specialis derogat legi generali*.

5. For the purposes of the present report, the inclusive approach of the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas is applied in referring to this broad spectrum of rights holders as “peasants” in relation to seeds, and to the seed systems that they rely on as “traditional”, “peasant” or “farmer” seed systems.

## II. Seeds as living heritage

6. Seeds are inseparable from food sovereignty, livelihoods, autonomy and self-determination for peasants, who have cultivated, saved, exchanged and sold seeds for crops, wild plants, fruits, herbs, grasses and trees for millennia. Seeds embody their connections to local environments and agroecological diversity.

7. Peasants are widely recognized as the primary contributors to the conservation and development of agrobiodiversity and forest genetic resources, which underpin global food, agriculture and ecosystem diversity.<sup>4</sup> Their roles are technical, environmental, cultural and governance-based. Through agroecological practices, they maintain soil fertility, manage pests and diseases and nurture the genetic resources of landraces, wild plants and trees across fields, wetlands, savannahs and forests.<sup>5</sup>

8. The vast majority of seeds used by peasants come from traditional systems of home and farm saving and local exchange and sale.<sup>6</sup> Reports indicate that 90% of seeds in Cameroon and Mali, 85% in Uganda, up to 80% across Asia, 70–75% in Madagascar and Zambia, and 60–70% in Palestine come from traditional systems.<sup>7</sup> Traditional seed systems, encompassing cultivated and wild species, have historically sustained a diversity of plants, including crops and trees, adapted to local ecological conditions.<sup>8</sup> They show greater resilience to drought and climate unpredictability than the industrial hybrids bred for high yields under optimum, high-input conditions, because of the genetic diversity enabled by in situ conservation.<sup>9</sup> Peasants nonetheless tend to draw on both traditional and formal seed systems, including farm-saved seed and local grain markets, to meet their needs.<sup>10</sup>

9. Seeds occupy a unique position at the intersection of agriculture, biodiversity, health, culture, knowledge, economics and human rights. They are simultaneously biological resources, cultural heritage, sources of life and livelihood, outcomes of innovation, kernels of knowledge, manifestations of self-determination and commodities in global trade. This multifaceted character places them at the heart of contestations between human rights and commerce, cooperation and competition, and communities and corporations.

10. The right to freely develop, use, save, exchange and sell seeds and propagating material is inextricably linked to the rights to life, food, land, natural resources, water, development, equality, health, work, culture and self-determination.<sup>11</sup> Realizing these rights requires that peasants be able to plant, harvest and forage under stable social, economic, political and environmental conditions. Secure land tenure, access to territories and water, healthy environments, social protection and participation in governance are accordingly crucial to the right to seeds.

<sup>4</sup> See <https://www.fao.org/4/y5609e/y5609e02.htm>.

<sup>5</sup> FAO, *The Third Report*, pp. 15 and 16.

<sup>6</sup> See <https://www.fao.org/agriculture/crops/thematic-sitemap/theme/compendium/tools-guidelines/what-are-seed-systems/en/>.

<sup>7</sup> Submissions received by the Working Group.

<sup>8</sup> See Umesh Babu Mudigere Sannegowda and Satish Chandra Garkoti, “Traditional community-led seed system for maintaining crop vigour, diversity and socio-cultural network in view of the changing climate: a case study from western Himalaya, India”, *Climate Action*, vol. 1 (2022); and Jacob van Etten and others, “The contribution of seed systems to crop and tree diversity in sustainable food systems”, in *Mainstreaming Agrobiodiversity in Sustainable Food Systems: Scientific Foundations for an Agrobiodiversity Index* (Bioversity International, Rome, 2017).

<sup>9</sup> See Alicia Mastretta-Yanes and others, “Human management of ongoing evolutionary processes in agroecosystems”, *Plants, People, Planet*, vol. 6, No. 6 (2024).

<sup>10</sup> See <https://www.fao.org/agriculture/crops/thematic-sitemap/theme/compendium/tools-guidelines/what-are-seed-systems/en/>.

<sup>11</sup> See A/HRC/49/43 and A/64/170.

11. As living, evolving heritage carrying the imprint of community innovation, traditional seed systems strengthen economic autonomy, cultural identity and multigenerational knowledge, shape food customs and dietary diversity and demonstrate the vital roles of peasants in conserving natural and agricultural biodiversity. Embedded in agroecological practice, they produce healthy, pesticide-free food and sustain varieties used in traditional medicine.<sup>12</sup>

12. Because traditional seeds can be saved, replanted and shared rather than purchased each season, they lower the cost of agricultural production. Local seed stocks ensure availability during market disruptions, conflicts, extreme weather events and other crises, preventing localized famine and household debt, while the simultaneous cultivation of multiple varieties provides a form of “ecological insurance” against the failure of any one crop. Exchange rituals such as *trafkintu* in Latin America build solidarity and ensure that no household is left without planting material.<sup>13</sup>

13. Women’s roles are central to traditional seed systems. As primary custodians and genetic selectors, they preserve genetic diversity, assure seed quality and transmit innovation and knowledge across generations, managing household and community granaries through expertise in seed processing and storage. In many regions, they are considered the “living guardians” of the genetic heritage essential to agrobiodiversity and food security.<sup>14</sup> Their knowledge of varieties’ uses and environmental requirements, including those of wild herbs and plants, allows them to adapt seeds to changing conditions, sustaining a living system of climate adaptation.

14. In Bangladesh, for example, women’s work preserves landraces resilient to salinity and flooding in vulnerable coastal and riverine regions. In West Africa, women select sorghum and millet varieties suited to fencing or roofing. Across regions, women are the main actors at local markets and seed fairs, exchanging both genetic diversity and the knowledge attached to it.<sup>15</sup>

15. By sustaining traditional seed systems, women help communities to resist dependence on industrial hybrids that cannot be replanted and to avoid the debt associated with purchasing commercial varieties and inputs, while driving the intergenerational transmission of knowledge needed for community-based innovation and science.

16. Promoting traditional seed systems is therefore inseparable from defending the rights of women peasants. This is consistent with the requirement of article 4 of the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas that States are to ensure rural women’s enjoyment, without discrimination, of all rights set out in the Declaration.

### III. Seeds governance landscape

17. Seed governance is shaped by a dense but fragmented set of international and national rules on human rights, biodiversity, intellectual property, trade, biosafety and agriculture, often pursued at cross purposes. Two paradigms can be distinguished here: one views seeds as biocultural and ecological commons underpinning food sovereignty and biodiversity; the other treats seeds as commodities controlled through exclusive intellectual property and market mechanisms. Regrettably, the balance has shifted markedly towards commodification, commercialization and enclosure, harming peasants’ enjoyment of the rights to food and seeds. This shift is driven by long-term concentration in the global seed industry, which has increased the market power of a few corporations and raised concerns about seed diversity, affordability and farmer autonomy.<sup>16</sup>

<sup>12</sup> Submissions received by the Working Group.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> Examples from the submissions received by the Working Group.

<sup>16</sup> See Sylvie Bonny, “Corporate concentration and technological change in the global seed industry”, *Sustainability*, vol. 9, No. 9 (2017).

18. For peasants, whose seed systems still provide the bulk of food in many regions, this discordant architecture translates into dangerous, regressive constraints on time-honoured practices of saving, exchanging, developing and selling seeds.

## A. Human rights framework

19. International human rights law recognizes seeds as integral to the rights to food, health, culture, a healthy environment and self-determination. Under the International Covenant on Economic, Social and Cultural Rights, the right to food requires States to ensure access to productive resources, including land, water and seeds, and refrain from regressive measures that undermine access, including privatization or restrictions on essential food resources.<sup>17</sup> Farmers' traditional seed knowledge is protected as cultural expression, safeguarding against biopiracy. States must ensure that rural women have access to agricultural inputs and resources, including seeds, on equal terms with men, including through land reform and appropriate technology.<sup>18</sup>

20. The United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas consolidates these provisions in article 19, which recognizes peasants' individual and collective right to develop, control, protect, save, exchange, use and sell their own and farm-saved seeds and to participate in decision-making on plant genetic resources. Article 19 (4) and (5) requires States to ensure that intellectual property rules do not prevent the exercise of peasants' right to seeds, while article 19 (8) holds that seed policies, plant variety protection and other intellectual property laws and seed marketing rules "respect and take into account" peasants' rights, needs and realities. These guarantees form part of a holistic seeds rights matrix and are both a prerequisite for and dependent on related rights to food and food sovereignty (art. 15), land, water and natural resources (arts. 17, 18 and 21), an adequate standard of living (art. 16), culture and traditional knowledge (arts. 20 and 26), a healthy environment (arts. 14 and 18), participation (art. 10), information (art. 11), justice and effective remedies (art. 12) and adequate training (art. 25).

21. The principles of equality and non-discrimination apply to the design and implementation of seed-related legislation and policy, ensuring that women peasants and economically marginalized smallholder farmers and pastoralists do not suffer disproportionate adverse impacts. Women farmers' right to seeds is fundamental, and States have an obligation to respect and protect their right to "preserve, use and exchange traditional and native seeds" and "prevent patenting by national and transnational companies to the extent that it threatens the rights of rural women".<sup>19</sup>

22. Participation, transparency and accountability are equally central. The meaningful participation of peasants, beyond token dialogue, with effective influence over outcomes, is required in designing, implementing and monitoring seed laws, intellectual property regimes, biosafety frameworks and agricultural policies. Under articles 10, 11 (2), 19, 28 (1) and 32 (2) of the United Nations Declaration on the Rights of Indigenous Peoples, Indigenous Peoples have the right to free, prior and informed consent in relation to measures affecting their lands, resources and traditional knowledge, including where those measures may implicate seeds and associated genetic resources.

23. Transparency requires States to ensure that peasants can obtain timely, accessible information in languages and formats that they understand, on seed laws, plant variety protection applications, patent grants, genetically modified organism risk assessments and benefit-sharing contracts. Accountability demands effective judicial and administrative remedies for harms arising from corporate conduct, restrictive seed laws or trade commitments.

<sup>17</sup> International Covenant on Economic, Social and Cultural Rights, arts. 2 and 11. See also Committee on Economic, Social and Cultural Rights, general comment No. 12 (1999), paras. 6 and 12–15.

<sup>18</sup> Convention on the Elimination of All Forms of Discrimination against Women, art. 14 (2) (g).

<sup>19</sup> Committee on the Elimination of Discrimination against Women, general recommendation No. 34 (2016), paras. 56 and 62.

24. The principle of intergenerational equity, recognized in international environmental law, requires seed governance to preserve agricultural biodiversity and associated traditional knowledge for future generations. This entails obligations to prevent genetic erosion, sustain diverse traditional seed systems and strengthen peasants' adaptive capacities under climate change.

## **B. Conservation framework**

25. The conservation framework is anchored in the Convention on Biological Diversity, including its Nagoya Protocol and Cartagena Protocol, and the International Treaty on Plant Genetic Resources for Food and Agriculture. The Convention on Biological Diversity replaced the common heritage principle, under which genetic resources were freely accessible to all, with national sovereignty over biodiversity, framing their conservation as a common concern of humankind. It introduced a requirement of prior informed consent and mutually agreed terms for access and benefit-sharing, operating at the State level for access to genetic resources and, additionally, at the community level where Indigenous and local communities' traditional knowledge is involved, along with an obligation to respect those communities' knowledge, innovations and practices.

26. In practice, however, many countries lack the political will or institutional capacity to comply with access and benefit-sharing obligations. Peasants often lack the legal recognition or bargaining power to negotiate and enforce equitable agreements. Reported cases of meaningful benefit-sharing with seed custodian communities remain rare.<sup>20</sup>

27. The International Treaty on Plant Genetic Resources for Food and Agriculture creates a special system for sharing plant genetic resources. For listed crops under its Multilateral System, access is granted through a Standard Material Transfer Agreement, under which recipients may not claim intellectual property rights limiting access to material in the form received. The Treaty's Benefit-sharing Fund provides for monetary benefit-sharing, although, in practice, this has remained limited, and payment obligations have been narrowly triggered and have not yielded sufficient resources to support farmer-managed seed systems.

28. Through article 9, the International Treaty on Plant Genetic Resources for Food and Agriculture recognizes farmers' rights to: (a) the protection of traditional knowledge relating to plant genetic resources; (b) equitable participation in benefit-sharing; and (c) participation in conservation decisions. It is affirmed in that article that nothing therein limits farmers' rights to save, use, exchange and sell farm-saved seed. The Treaty also supports on-farm conservation, sustainable use, participatory plant breeding and use of local varieties.

29. The fundamental challenge is that responsibility for realizing these rights rests with national Governments, producing uneven, shifting implementation worldwide. Many jurisdictions have revised seed and intellectual property laws in ways that effectively criminalize farmers' practices of saving, exchanging and selling seeds. This tension is intensified by the move of the European Union to deregulate new genomic techniques, which has been criticized for potentially strengthening patent-based control over seeds, reducing traceability and labelling and exposing farmers to legal and market pressure from patented material. Such deregulation can accelerate the enclosure of genetic resources, risking contamination of non-genetically modified varieties, and obstruct efforts to liberate legitimate seed practices from proprietary claims.<sup>21</sup>

30. By contrast, some countries have adopted *sui generis* frameworks explicitly protecting these rights. The 1997 cultivar law of Brazil includes a farmers' exception allowing small-scale growers to save and reuse protected seeds. Indonesia has adopted a comparable system. The Protection of Plant Varieties and Farmers' Rights Act of India, of 2001, is widely regarded as progressive legislation, explicitly protecting farmers' rights, although implementation has focused more on registering farmers' varieties under the intellectual

<sup>20</sup> Submissions received by the Working Group.

<sup>21</sup> See [eurovia.org/press-releases/european-parliament-approves-the-deregulation-of-gmo-ngt-plants-but-the-struggle-of-european-peasant-farmers-does-not-stop-there/](https://eurovia.org/press-releases/european-parliament-approves-the-deregulation-of-gmo-ngt-plants-but-the-struggle-of-european-peasant-farmers-does-not-stop-there/).

property regime.<sup>22</sup> Reportedly, the pending Seeds Bill, 2025, would amend the Act to impose industry standards for all seed sales, deepening challenges for traditional small-scale farmer-managed systems.<sup>23</sup>

31. In Africa, traditional seed systems continue to supply most planted seed, yet conservation policies and public resources overwhelmingly favour *ex situ* gene banks, commercial breeding and certified seeds, leading to underfunding of in situ conservation through farmer-managed seed systems.<sup>24</sup> The African Model Law for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources, offers an alternative, integrating biodiversity conservation and peasant and community rights, but it has been largely sidelined by subsequent moves towards plant variety protection and seed marketing rules harmonized across the region and in line with the 1991 Act of the International Convention for the Protection of New Varieties of Plants.<sup>25</sup>

### C. Intellectual property framework

32. The intellectual property framework for seeds rests on the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), the International Convention for the Protection of New Varieties of Plants and national patent laws. Article 27 (3) (b) of the TRIPS Agreement requires WTO members to protect plant varieties either by patents, by an “effective *sui generis* system”, or by a combination of both. It allows members to exclude plants and animals from patentability, does not define what constitutes “effective” and does not prescribe membership of the International Union for the Protection of New Varieties of Plants. In practice, however, powerful States and industry actors have interpreted this provision as a mandate for protection of the kind provided for under the 1991 Act of the International Convention for the Protection of New Varieties of Plants, using trade and investment agreements to promote and require becoming a Party to the Act.

33. Under the 1978 Act of the International Convention for the Protection of New Varieties of Plants, farmers were understood to be free to save, use and exchange, but not to sell, farm-saved seeds of protected varieties. The 1991 Act of the Convention significantly strengthens plant breeders’ rights by extending protection to harvested material and, in some cases, to products derived from it and by introducing the concept of essentially derived varieties, which further limits the unauthorized commercialization of varieties derived from protected varieties. Local exchange and sale of protected varieties are prohibited without breeder authorization, and on-farm seed saving is permitted only as a narrowly framed optional exception, subject to safeguarding breeders’ “legitimate interests”.

34. These rules are at odds with the customary rights and daily practices of peasants, for whom saving, resowing, exchanging and locally selling seed are essential to livelihoods, cultural identity and in situ conservation. In several African and Latin American countries with laws inspired by the 1991 Act of the International Convention for the Protection of New Varieties of Plants, civil society organizations and rural communities have documented cases where peasants and Indigenous Peoples have faced civil or even criminal sanctions for exchanging or selling farm-saved seeds from protected varieties – activities that should be recognized as legitimate contributions to sustainable agriculture and biodiversity.<sup>26</sup>

<sup>22</sup> See India, Ministry of Commerce and Industry, *National Intellectual Property Rights Policy* (2016).

<sup>23</sup> See <https://www.downtoearth.org.in/agriculture/seed-bill-2025-built-for-corporates-not-cultivators-farmers-warn>; <https://peoplesdispatch.org/2025/12/10/indian-farmers-protest-new-seed-bill-calling-it-a-threat-to-the-countrys-sovereignty/>; and <https://eng.ruralvoice.in/national/amending-india-plant-varieties-and-farmers-rights-act.html>.

<sup>24</sup> Karine Peschard, Christophe Golay and Lulbahri Araya, “The right to seeds in Africa”, Research brief, Academy of International Humanitarian Law and Human Rights, June 2023, pp. 1 and 5.

<sup>25</sup> *Ibid.*, pp. 3 and 7.

<sup>26</sup> See Alliance for Food Sovereignty in Africa and others, *Seeds at Risk: Global Struggles for Control over Food* (2025).



35. Beyond plant variety protection, patent systems in some jurisdictions, notably the United States of America, where utility patents extend to whole plants, allow broad protection over plant genes, traits and biotechnological processes.<sup>27</sup> Such protection can cover all uses of patented traits, including seed saving and resowing, and has enabled cases of biopiracy in which companies obtained patents on genetic resources and traditional knowledge developed by peasants and Indigenous Peoples, as illustrated by disputes over neem, turmeric and basmati rice.<sup>28</sup>

36. The United Nations human rights treaty bodies have affirmed that intellectual property regimes must be compatible with States' human rights obligations.<sup>29</sup> In its general comment No. 17 (2005), the Committee on Economic, Social and Cultural Rights notes that these regimes must be implemented consistently with obligations under the International Covenant on Economic, Social and Cultural Rights.<sup>30</sup> Consistent with this, and with the prioritization in article 2 (4) of the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas of human rights norms, the Working Group reiterates that human rights must prevail where intellectual property rules and seed marketing laws conflict with the right to seeds.

## D. Trade framework

37. Trade rules play a central role in shaping seed governance, often entrenching intellectual property and regulatory models designed for industrial seed systems. Beyond the TRIPS Agreement, several other WTO agreements are particularly relevant: the Agreement on Agriculture, the Agreement on the Application of Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade.

38. The provisions of the Agreement on Agriculture have enabled the award of substantial subsidies to industrial agriculture in developed countries, facilitating their dominance in global seed markets and undermining seed sovereignty elsewhere. The global seed market has reached approximately US\$ 81 billion as of 2026, with four companies (Bayer, Corteva, Syngenta and BASF)<sup>31</sup> controlling more than half of the market, and the 10 largest companies controlling 70% overall.<sup>32</sup>

39. Measures adopted under the Agreement on the Application of Sanitary and Phytosanitary Measures often include requirements for safety standards, assessments and certifications that farmer-managed seed systems cannot easily meet, restricting cross-border seed exchange and reinforcing dependence on certified commercial seed.<sup>33</sup> The provisions of the Agreement on Technical Barriers to Trade pressure States to harmonize seed standards around criteria designed for industrial varieties, which are ill-suited to diverse farmer varieties and landraces, such as genetic purity and uniformity.<sup>34</sup>

40. Regional and bilateral agreements increasingly include "TRIPS-plus" provisions requiring accession to the 1991 Act of the International Convention for the Protection of New Varieties of Plants, stronger plant-related patent protection or the alignment of seed

<sup>27</sup> See <https://www.uspto.gov/ip-policy/patent-policy/international-convention-protection-new-varieties-plants-upov>.

<sup>28</sup> See <https://www.legacyias.com/biopiracy-neem-turmeric-case-studies-upsc-notes/>.

<sup>29</sup> See E/C.12/2001/15; A/70/279; and Committee on Economic, Social and Cultural Rights, general comment No. 25 (2020).

<sup>30</sup> Committee on Economic, Social and Cultural Rights, general comment No. 17 (2005), paras. 22 and 35.

<sup>31</sup> In 2018, Bayer acquired Monsanto. In 2017, Syngenta was acquired by ChemChina.

<sup>32</sup> See <https://www.publiceye.ch/en/topics/seeds/concentration-of-the-seed-market>; <https://www.zionmarketresearch.com/news/global-seed-market>; and <https://www.mordorintelligence.com/industry-reports/seeds-industry>.

<sup>33</sup> See <https://seedsforresilience.org/assets/2017/05/2017-Seedlawstudy.pdf>; and <https://edepot.wur.nl/121915>.

<sup>34</sup> See [https://www.farmersrights.org/getfile.php/131758-1661172977/Dokumenter/semences\\_reglementations\\_EN.pdf](https://www.farmersrights.org/getfile.php/131758-1661172977/Dokumenter/semences_reglementations_EN.pdf); and <https://geneva-academy.ch/wp-content/uploads/2025/09/The-Right-to-Seeds-in-Europe.pdf>.



certification with Organisation for Economic Co-operation and Development (OECD) schemes. Examples include free trade agreements concluded by the European Free Trade Association<sup>35</sup> and the European Union<sup>36</sup> and the Protocol to the Agreement Establishing the African Continental Free Trade Area on Intellectual Property Rights,<sup>37</sup> which reportedly draws on the standards of the 1991 Act. Civil society organizations have highlighted that these measures typically proceed with limited farmer participation and risk subordinating farmer-managed seed systems to commercial regimes, rather than recognizing them as distinct systems requiring tailored support.

41. OECD voluntary seed schemes function as de facto international standards for many crops and are often required for certified seed imports. Their emphasis on varietal purity, stability and uniformity favours industrial breeding and marginalizes heterogeneous, locally adapted varieties maintained by peasants. European Union seed catalogues require several years of testing and certification, which is incompatible with peasant varieties that adapt rapidly to local conditions.<sup>38</sup> Combined with European Patent Convention protection for biotechnological inventions, these create complementary barriers: OECD demands distinctness, uniformity and stability certification, while the European Patent Convention demands novelty and inventive step. Both are challenging for heterogeneous peasant varieties.<sup>39</sup>

#### IV. From commons to commodity: cumulative effects of seed governance

42. Taken together, the cumulative effect of intellectual property and trade rules, seed marketing and certification laws, biosafety regimes, emerging technologies and corporate-friendly policies is that of a formidable architecture of control favouring corporations and commercial breeders, driving the de facto commodification of seeds at the expense of traditional seed systems. In many countries, seed marketing laws require any seed sold or exchanged beyond narrow exceptions to be certified and registered in official catalogues, subjecting peasant seed exchange to rules designed for industrial seed companies.<sup>40</sup>

43. International financial institutions have further aggressively promoted proprietary control over seeds in domestic regulation, entrenching the enclosure of traditional seed systems.<sup>41</sup> The World Bank has conditioned financial support to some Governments on the adoption of seed legislation that is aligned with the 1991 Act of the International Convention for the Protection of New Varieties of Plants or is otherwise restrictive.<sup>42</sup> Despite obligations to consult affected communities in good faith, Governments, pressured by financial imperatives or acting of their own accord, prioritize market interests over peasant and community rights.

<sup>35</sup> See [https://www.apbrebes.org/sites/default/files/2024-12/Apbrebes\\_UPOV-War-against-Farmers\\_EN\\_241202\\_fin.pdf](https://www.apbrebes.org/sites/default/files/2024-12/Apbrebes_UPOV-War-against-Farmers_EN_241202_fin.pdf).

<sup>36</sup> See OTH 140/2024, available from <https://spcommreports.ohchr.org/Tmsearch/TMDocuments>; <https://en.heks.ch/medien/un-criticises-efta-jeopardising-right-food>; and [https://tbinternet.ohchr.org/\\_layouts/15/TreatyBodyExternal/DownloadDraft.aspx?key=QOhA2Ygl1dNCKCawoY4VPE79aC9Ni%2FDP5ZC6TH6TeXfjZ5SbSrpRvyOPkzcj6atq8](https://tbinternet.ohchr.org/_layouts/15/TreatyBodyExternal/DownloadDraft.aspx?key=QOhA2Ygl1dNCKCawoY4VPE79aC9Ni%2FDP5ZC6TH6TeXfjZ5SbSrpRvyOPkzcj6atq8).

<sup>37</sup> See <https://au.int/en/treaties/protocol-agreement-establishing-african-continental-free-trade-area-intellectual-property>; and <https://academic.oup.com/jiplp/article/20/5/308/7908948>.

<sup>38</sup> See <https://geneva-academy.ch/wp-content/uploads/2025/09/The-Right-to-Seeds-in-Europe.pdf>; and [https://www.arche-noah.at/media/eu\\_reform\\_of\\_seeds\\_marketing\\_rules\\_study\\_digital.pdf](https://www.arche-noah.at/media/eu_reform_of_seeds_marketing_rules_study_digital.pdf).

<sup>39</sup> See <https://www.eurovia.org/wp-content/uploads/2023/07/EN-PACE-SEED-LAW-PUBLICATION.pdf>.

<sup>40</sup> See <https://archive.foodfirst.org/wp-content/uploads/2016/03/Wattnem-2016.pdf>.

<sup>41</sup> Submissions received by the Working Group.

<sup>42</sup> See <https://cafod.org.uk/about-us/policy-and-research/food-systems-and-agriculture/how-the-world-bank-harms-poor-farmers>.

44. Honduras, Malaysia and Zambia illustrate how international economic pressure can reshape domestic seed governance with limited community participation. In Zambia, the World Bank-funded Zambia Growth Opportunities Programme-for-Results was used to align the country's seed laws with the 1991 Act of the International Convention for the Protection of New Varieties of Plants without adequate consultation, contrary to the rights to participation and seeds articulated in the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas.<sup>43</sup>

45. Many national seed laws restrict sales and exchanges to registered, certified seeds meeting standards for genetic purity, germination and freedom from pests. Certification and catalogue registration require compliance with distinctness, uniformity and stability and germination standards, through procedures that are lengthy, administratively difficult, costly and dependent on technical agencies that are often inaccessible to peasants. Intentionally heterogeneous and dynamic peasant varieties cannot meet such criteria and are excluded from formal markets, while peasants who exchange or sell their own seed risk being treated as traders of "uncertified" or "counterfeit" seed. Such restrictions deepen agrobiodiversity loss, increase dependence on commercial seed markets and render traditional seeds "legally invisible", excluding them from government support and disaster relief.<sup>44</sup>

46. The global seed market is increasingly controlled by a small number of agribusiness corporations, creating agricultural oligopolies that undermine peasants' autonomy and livelihoods.<sup>45</sup> This market concentration – the fact that four corporations control over half of the global commercial seed market – is facilitated by strong intellectual property rights protection and weak antitrust constraints. Competition law has rarely been applied to address seed market concentration.

47. There is a sharp tension between traditional seed systems, which account for 70% to 90% of planted seeds in many countries, and a highly concentrated commercial seed sector.<sup>46</sup> Market concentration is shifting governance away from communities and the public interest towards proprietary seed markets dominated by agribusiness corporations, deepening community dependence on corporate seeds and purchased inputs. Concentration enables corporations to integrate seed and agrochemical markets, direct breeding towards commercially profitable traits and deploy patent thickets that further restrict peasants' access to genetic resources, while privatization erodes public support for peasants to develop and protect traditional seed systems.

48. Local landraces are being replaced by commercial hybrids and genetically modified organisms, requiring expensive synthetic fertilizers and pesticides. Contract farming arrangements compel peasants to use specific corporate seeds, stripping them of their right to choose what they plant, while industrial farming systems require new seed purchases every season, trapping communities in cycles of debt.<sup>47</sup>

49. In Malaysia, the removal of "reasonable seed supply" requirements and price oversight reportedly enabled a few firms to dominate proprietary seed markets, raise costs and weaken national breeding capacity. In Brazil, transnational seed interests have shaped a system that prioritizes corporate patents, while community practices survive only through narrow legal exceptions. Corporate control and seed market concentration are enabled by and shape governance, shrinking the space for public interest regulation and peasant autonomy.<sup>48</sup>

## V. Compounding threats to traditional seed systems

50. Peasants face overlapping impacts and challenges that obstruct the enjoyment of their human rights and threaten the future of traditional seed systems.

<sup>43</sup> Submissions received by the Working Group.

<sup>44</sup> Ibid.

<sup>45</sup> Ibid.

<sup>46</sup> Ibid.

<sup>47</sup> Ibid.

<sup>48</sup> Examples from the submissions received by the Working Group.

## A. Criminalization

51. Intellectual property rights, plant variety protection certification regimes, and legal and regulatory frameworks that favour commercial breeders, combined with aggressive industry-led enforcement and technological surveillance, are increasingly criminalizing traditional seed practices with penalties including heavy fines and imprisonment.<sup>49</sup>

52. The 1991 Act of the International Convention for the Protection of New Varieties of Plants largely confines the farmer's privilege to on-farm saving and replanting, leaving exchange and sale outside the default exception unless a State chooses otherwise. It requires effective enforcement remedies, and some national laws have thus imposed sanctions that can criminalize traditional seed practices.<sup>50</sup>

53. The plant breeding industry is pushing for stronger laws and aggressive criminal enforcement to protect commercial breeders' economic interests. Even in countries that are not Parties to the 1991 Act of the International Convention for the Protection of New Varieties of Plants, patent and intellectual property rights infringements formerly treated as civil disputes are being reclassified as crimes against industrial property. Specialized bodies such as the Anti-Infringement Bureau for Intellectual Property Rights on Plant Material, Gestión de Licencias Vegetales (GESLIVE) and the Farmers Yield Initiative have emerged to support the monitoring and enforcement of seed-related intellectual property rights, often in close cooperation with industry networks and public enforcement authorities.<sup>51</sup>

54. Advanced technological tools, molecular markers, drones and satellite imagery are used to monitor crops and detect "unauthorized" use of protected seed. Companies are increasingly using digital sequence information to patent traits derived from traditional seeds, heightening peasants' exposure to risks of biopiracy and infringement charges.<sup>52</sup> However, protections for peasant communities and their traditional seed systems remain weak and inconsistent.

55. National certification requirements that purport to protect farmers from poor-quality seed effectively criminalize community seed exchanges and exclude traditional varieties from formal markets. In Kenya, strict seed certification and marketing rules were applied to peasant seeds without exemption, with fines and prison terms foreseen for sales of uncertified seed, creating a chilling effect on traditional exchange.<sup>53</sup>

56. In Tunisia, farmers can face prosecution for traditional seed exchange.<sup>54</sup> The 2020 Plant Variety Protection Act of Ghana prescribes fines or 10 to 15 years' imprisonment for unauthorized sale of a protected variety.<sup>55</sup> In Japan, up to 10 years' imprisonment and hefty fines are imposed for breeders' rights infringement, while the Philippines provides for heavy fines and three to six years' imprisonment.<sup>56</sup> In Indonesia, seed-related laws have in some cases led to prosecution of small-scale farmers for breeding and exchanging seeds outside formal certification systems. In a high-profile Italian case, a tomato producer received a suspended one-year prison sentence and was ordered to pay approximately 100,000 euros in fines and in compensation to be split between the Anti-Infringement Bureau for Intellectual Property Rights on Plant Material and Syngenta.<sup>57</sup>

<sup>49</sup> Submissions received by the Working Group.

<sup>50</sup> See [https://www.southcentre.int/wp-content/uploads/2015/04/PB17\\_More-Coherent-International-Legal-System-on-Farmers%E2%80%99-Rights\\_EN.pdf](https://www.southcentre.int/wp-content/uploads/2015/04/PB17_More-Coherent-International-Legal-System-on-Farmers%E2%80%99-Rights_EN.pdf).

<sup>51</sup> See Karine Peschard, "When saving seed becomes a crime", Association for Plant Breeding for the Benefit of Society, March 2026.

<sup>52</sup> Ibid.

<sup>53</sup> See <https://www.powershiftafrica.org/in-the-news/kenyas-landmark-seed-ruling-why-it-matters-and-what-it-means-for-seed-and-food-sovereignty>.

<sup>54</sup> Submissions received by the Working Group.

<sup>55</sup> See <https://www.wipo.int/wipolex/en/legislation/details/21201>.

<sup>56</sup> See [https://www.hinshu2.maff.go.jp/en/about/pvp\\_system\\_in\\_japan\\_202406.pdf](https://www.hinshu2.maff.go.jp/en/about/pvp_system_in_japan_202406.pdf); and <https://elibrary.judiciary.gov.ph/thebookshelf/showdocs/2/1444>.

<sup>57</sup> See Peschard, "When saving seed becomes a crime".

57. The criminalization of traditional seed practices creates a climate of intimidation and fear. Industry organizations have established anonymous tip-off lines for reporting “suspicious seed activity”. In Peru, farmers have been pressured to rely on certified seed systems, limiting their ability to save and exchange seeds – practices that might otherwise have been permitted.<sup>58</sup> Peasants lack the financial and legal resources to contest proceedings brought by seed companies and industry bodies, which can stretch for years and carry the threat of heavy fines and imprisonment.

## **B. Evictions, displacement and loss of seed territories**

58. The erosion of traditional seed systems is exacerbated by territorial tensions, displacement and violence arising from agroindustrial, energy, extractive and infrastructure projects, military occupation and geopolitical conflicts, all of which undermine the physical security of peasants and the territorial continuity on which seed conservation, cultivation, exchange and cultural transmission depend.

59. Secure access to land, territories and water is a prerequisite for seed conservation. However, peasants worldwide face land-grabbing, evictions and displacement that make long-term conservation nearly impossible.<sup>59</sup> Redistributive land reform remains incomplete, ensnaring rural communities in debt traps and driving outward migration in search of more stable livelihoods. Economic instability and migration are driving declining interest in agriculture among youth, disrupting the intergenerational transmission of traditional knowledge and seed-saving practices, in particular from mothers to daughters.<sup>60</sup>

60. In Honduras, communities resisting palm oil, mining and hydroelectric projects have faced torture, disappearance, kidnapping and killings. Industrial megaprojects have caused significant environmental degradation, intensifying the climate crisis and human rights violations. Women increasingly face gender-based violence, health crises and displacement due to the escalating climate emergency. In Burkina Faso, conflict-driven displacement has led to the loss of community seeds.<sup>61</sup> Where communities lose territorial control or face violence and displacement, they lose the social and ecological space in which traditional seed systems survive. Seed territories are not abstract repositories but living landscapes shaped by individual and community presence and practice.

61. In Palestine, settler-colonial military occupation and the systematic destruction of agricultural infrastructure undermine the right to seeds. In December 2025, military attacks forced the closure and seizure of the only Palestinian community-managed seed bank, housing over 70 locally collected seed varieties from across the West Bank and Gaza, which was essential for agrobiodiversity, climate resilience and cultural preservation. Its loss reversed years of grass-roots work on native seed conservation, farmer training and agroecology, exposing the acute vulnerability of community-based initiatives in militarized territories.<sup>62</sup>

## **C. Seed aid and humanitarian intervention**

62. Large-scale development programmes, such as those promoting a “green revolution” in Africa, have channelled financial resources towards proprietary hybrid seeds, inputs and commercial value chains, with limited attention to traditional seeds and agroecological practices.<sup>63</sup>

<sup>58</sup> Ibid.

<sup>59</sup> Submissions received by the Working Group.

<sup>60</sup> Ibid.

<sup>61</sup> Ibid.

<sup>62</sup> Ibid.

<sup>63</sup> See

[https://www.rural21.com/fileadmin/\\_migrated/content\\_uploads/R21\\_Unmasking\\_the\\_Green\\_Revolution\\_in\\_Africa...0408.pdf](https://www.rural21.com/fileadmin/_migrated/content_uploads/R21_Unmasking_the_Green_Revolution_in_Africa...0408.pdf).

63. In some cases, humanitarian seed aid has led to the introduction of commercial varieties poorly adapted to local conditions, disrupting local seed systems and creating dependencies on external sources. Well intentioned though such aid may be, it can erode genetic diversity by displacing traditional varieties, undermine seed sovereignty and the self-sufficiency of affected populations and benefit seed companies while failing to address the root causes of food insecurity.

64. In Burkina Faso, public policies do not support traditional seed systems in crisis situations. Existing programmes often distribute commercial, certified seeds that trap communities in the commercial seed regime. Solidarity and support mechanisms established by peasant organizations to assist affected communities lack public support.<sup>64</sup>

65. Alternative approaches, including seed fairs, voucher systems allowing peasants to choose seeds from local suppliers and support for local seed multiplication, have proven more effective in rebuilding seed systems after crises, while respecting farmers' agency and traditional knowledge.

## **D. Gendered impacts on seeds systems**

66. The lack of effective legal protection and policy support for traditional seed systems, the privatization of seeds and the criminalization of peasant seed practices have heightened rural women's socioeconomic insecurity and vulnerability to crises. Restrictive seed certification laws disproportionately affect women by criminalizing the traditional practices on which they depend for income. Since women are more reliant on traditional rather than commercial seeds, their agency, autonomy and rights are at risk. The erosion of traditional seed systems due to climate change and corporate concentration increases gender inequality. A decline in traditional seed systems leads to a decline in women's food autonomy and income generation, increasing household food insecurity and gender inequality.<sup>65</sup>

67. Despite wide recognition that women are the primary guardians of traditional knowledge and genetic diversity, they continue to face inequality in rights and opportunities. Rural women's labour and expertise are often invisible in agricultural policies, seed regulations and training programmes, and they are excluded from negotiations and policy processes regarding seed and food governance. Research and funding are disproportionately directed towards industrial, high-input, uniform crop varieties that serve large agribusinesses, rather than the crops that women usually grow for domestic use and local sale.<sup>66</sup>

68. The lack of recognition of land rights is a persistent structural barrier faced by women, undermining their authority over seeds and constraining their ability to invest in long-term conservation. Furthermore, although women provide the majority of agricultural labour in many regions, men usually control financial and natural resources.<sup>67</sup>

## **E. Climate change, genetic erosion and biotechnology risks**

69. Traditional seed systems are essential for biodiversity and climate resilience. Territorial degradation and conversion erode the ecological conditions required for local seed reproduction and for the continuing health of biodiversity. The biological viability of traditional seeds is affected by extreme heat and unpredictable rainfall, sometimes causing seed non-viability or affecting pollination.<sup>68</sup>

70. The Food and Agriculture Organization of the United Nations (FAO) estimates that 75% of plant genetic diversity has been lost since 1900, as farmers worldwide have shifted from diverse landraces to genetically uniform modern varieties. Privileging uniform commercial varieties and restricting traditional seed systems has contributed to genetic

<sup>64</sup> Submissions received by the Working Group.

<sup>65</sup> Ibid.

<sup>66</sup> Ibid.

<sup>67</sup> Ibid.

<sup>68</sup> Ibid.

erosion. Of the 6,000 plant species cultivated for agriculture, just nine crops – sugarcane, maize, rice, wheat, potatoes, soybeans, oil palm fruit, sugar beet and cassava – have accounted for over 60% of global crop production in recent years. Given that over 80% of the world's food comes from plants, protecting and sustainably using plant genetic resources for food and agriculture is a cornerstone of agrifood system transformation.<sup>69</sup>

71. Genetic erosion has serious implications, including reduced resilience to climate change, pests and diseases; loss of valuable genetic traits needed for future breeding; erosion of associated traditional knowledge; increased vulnerability of food systems to systemic shocks; and cultural erasure for communities whose identities are tied to specific crop varieties. Community seed storage and in situ participatory plant breeding are often considered practical responses that can strengthen resilience against climatic and ecological instability.

72. The spread of genetically modified organisms constitutes a form of environmental harm: through pollen flow and introgression, transgenic sequences can be transferred into traditional and wild varieties, undermining their genetic integrity.<sup>70</sup> Biotechnology and digitalization are interconnected, emerging threats to traditional seed systems. In Brazil, 92% of soy and 90% to 93% of maize is reportedly transgenic, illustrating the scale at which genetically modified organisms have become embedded in food systems. Approximately one third of creole maize in the semi-arid region of Brazil has been contaminated because mandatory planting distances between transgenic and traditional crops are insufficient.<sup>71</sup>

73. New breeding technologies, particularly clustered regularly interspaced short palindromic repeats and other gene-editing techniques, challenge existing biosafety regulations due to disagreements as to whether the resulting plants should be treated as genetically modified or conventional varieties. The European Court of Justice ruled in 2018 that gene-edited organisms are genetically modified organisms, subject to existing regulation. In June 2026, however, the European Union adopted legislation creating two categories of gene-edited plants: those with simple modifications equivalent to conventional breeding, which are exempted from rules applicable to genetically modified organisms, and those with more complex modifications, which remain subject to full genetically modified organism regulation.<sup>72</sup> The United States generally does not regulate gene-edited crops as genetically modified organisms if they could have been produced through conventional breeding.

## F. Biopiracy in the age of digital sequence information

74. Equally concerning are the control and ownership of gene-editing tools and gene-edited varieties, as well as their implications for public breeding. For peasants, gene editing exacerbates threats of increased corporate control over plant genetic resources for food and agriculture through patents on editing technologies and edited varieties, potentially further restricting access to seeds.

75. Digital sequence information and gene-editing techniques present new biopiracy and criminalization threats. Companies can sequence and patent genetic codes from global databases without touching the physical seed, circumventing access and benefit-sharing obligations and creating new prosecution risks.<sup>73</sup>

<sup>69</sup> FAO, *The Third Report*, p. xv.

<sup>70</sup> Submissions received by the Working Group.

<sup>71</sup> See <https://news.mongabay.com/2023/09/transgenics-contaminate-a-third-of-brazils-traditional-corn-in-semiarid-region/>; and Gabriel Bianconi Fernandes and others, "Transgene flow: challenges to the on-farm conservation of maize landraces in the Brazilian semi-arid region", *Plants*, vol. 11, No. 5 (2022).

<sup>72</sup> See [https://food.ec.europa.eu/plants/new-genomic-techniques\\_en](https://food.ec.europa.eu/plants/new-genomic-techniques_en).

<sup>73</sup> Submissions received by the Working Group.

76. Genetic data derived from peasant seeds can be uploaded to online databases and used commercially without effective detection, consent or benefit-sharing. As sequencing becomes cheaper and databases more comprehensive, traditional varieties become more vulnerable to misappropriation. Patent claims on gene sequences and traits risk extending exclusive rights over all biological material expressing those sequences, affecting traditional seeds that contain patented material. In 2005, Syngenta filed 15 global patent applications on rice genome sequences and claimed monopoly control over sequences reportedly present in many peasant and Indigenous varieties of rice, wheat, tomatoes, tobacco and peanuts.<sup>74</sup>

77. The expansion of genome editing and proprietary databases also risks deepening technological divides, marginalizing peasant and farmer-led innovation and undermining rights recognized in the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas and the International Treaty on Plant Genetic Resources for Food and Agriculture.<sup>75</sup> The fifteenth session of the Conference of the Parties to the Convention on Biological Diversity, held in December 2022, established a multilateral benefit-sharing mechanism for digital sequence information, with modalities still under negotiation. The Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture is addressing digital sequence information in parallel. How digital sequence information is regulated significantly affects rights holders under the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas regarding benefit-sharing from the commercial use of genetic information from traditional varieties.

78. Physical and digital biopiracy are deepening concerns. The Multilateral System and Standard Material Transfer Agreement of the International Treaty on Plant Genetic Resources for Food and Agriculture have been criticized for governance and transparency gaps. Mandatory payments into the Benefit-sharing Fund operate as a de facto “biopiracy fee”, enabling researchers and companies to commercialize traditional seeds without adequately compensating their custodians, and treating community stewardship and innovation as raw material for downstream exploitation.<sup>76</sup>

79. Although the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas recognizes peasants’ right to seeds and traditional knowledge, and the Convention on Biological Diversity requires States Parties to respect and preserve the knowledge, innovations and practices of Indigenous and local communities, these protective norms have proven weaker in practice than proprietary systems that facilitate the extraction, registration and commercialization of genetic resources. Digital sequence information intensifies this imbalance, as digital uses of genetic information can obscure provenance and render peasants’ innovations invisible.

## VI. Peasants in action: defending seed rights and autonomy

80. Although much of the planet’s flora is self-perpetuating when left undisturbed, most agricultural biodiversity exists because of the wide array of actions taken by peasants to preserve and strengthen seed and ecological systems, building resilience to environmental, climate, economic and political stressors.

### A. Saving and preservation

81. Seed saving enables peasant households to sustain nutrition, ensure cultural continuity, reduce input costs and retain control over production decisions. In situ conservation in farms, fields and forests and on common lands constitutes a living, dynamic process of climate adaptation, allowing seeds to evolve in the soil and adjust to changing

<sup>74</sup> See, e.g., <https://www.swissaid.ch/en/media/syngenta-withdraws-controversial-tomato-patent/>; and <https://www.no-patents-on-seeds.org/en/node/540>.

<sup>75</sup> See [https://acbio.org.za/wp-content/uploads/2024/10/SM\\_Gene-editing-deregulation-in-Africa\\_compressed.pdf](https://acbio.org.za/wp-content/uploads/2024/10/SM_Gene-editing-deregulation-in-Africa_compressed.pdf).

<sup>76</sup> Submissions received by the Working Group.



environments, pests and drought.<sup>77</sup> It encompasses selection and breeding, individual and community storage, social exchange and multiplication, and integrated agroecological systems combining traditional knowledge, innovation, family agriculture, pastoralism and ecosystem conservation.

82. Peasant seed conservation is inseparable from broader ecological practices. In Brazil, seeds are selected and cultivated in polyculture systems for adaptation to complex environments free of synthetic agrochemicals. In Viet Nam, herbal medicine and forest gardens conserve hundreds of medicinal and food plant species. In South Africa, agroecology hubs organized by rural women's groups combine seed saving with soil regeneration, composting and rainwater harvesting.<sup>78</sup>

83. Seed selection draws on complex criteria: yield stability, taste, cooking properties, fodder quality, storage longevity and resistance to pests, drought, floods and precipitation variations. In Palestine and in the wider Middle East and North Africa region, seeds are selected to survive low rainfall and drought. In France, farmers grow heterogeneous wheat populations in which the plants that survive extreme heat contribute their genetic material to the next cycle, breeding resilience without a laboratory. Through participatory plant breeding, farmers have collaborated with scientists in Brazil, China, the Philippines, the Syrian Arab Republic (pre-war), Thailand, Uganda, Viet Nam and Zambia, as well as in countries in Central Africa and in Palestine, to develop context-tailored seeds. Bionatur in Brazil is one of the largest agroecological seed producers in Latin America. In many African countries, farmers and researchers are conducting studies on different seed systems to counter negative narratives about farmer varieties.<sup>79</sup>

84. Seeds are preserved through specialized traditional methods involving the use of ash, neem leaves, castor oil, clay pots sealed with cow dung, cloth bags and glass jars. In the Philippines, the *tinatapa* method preserves seeds through kitchen smoking. Community seed banks, as decentralized repositories for hundreds of local varieties, are the most prominent storage mechanism. They complement household conservation by multiplying seeds, documenting varietal traits and ensuring access to seeds outside markets, and serve as critical safety nets enabling communities to recover locally adapted varieties after natural disasters, wars and other crises.<sup>80</sup>

## B. Customary management of territories

85. Transhumance communities preserve seeds and biodiversity through customary management of territories, including grazing and settlement lands, and migratory routes. Many of these territories are recognized as Globally Important Agricultural Heritage Systems,<sup>81</sup> where generations of combined agriculture and livestock use have created resilient, biodiverse agroecosystems.<sup>82</sup> In Tunisia, communities manage vast stretches of collective land and migratory routes essential for their survival and local ecosystem maintenance.<sup>83</sup>

86. Seeds and livestock are managed collectively, with exchange practices rooted in community solidarity. Biodiversity is preserved through ancestral knowledge of seasonal rhythms, soil moisture and ecological calendars that guide planting, grazing and harvesting. Bedouin communities in Palestine preserve landraces resilient to harsh conditions through traditional farming under severe political constraints.<sup>84</sup>

<sup>77</sup> Ibid.

<sup>78</sup> Ibid.

<sup>79</sup> Ibid.

<sup>80</sup> Ibid.

<sup>81</sup> See <https://www.fao.org/giahs/en>.

<sup>82</sup> Submissions received by the Working Group.

<sup>83</sup> Ibid.

<sup>84</sup> Ibid.

### C. Exchange, recovery and cultural continuity

87. Peasant seed conservation is maintained through collective social systems, exchanges and localized sales. Seed cooperatives, clubs, fairs and festivals showcase diversity, facilitate the exchange of local seeds and knowledge and strengthen community cohesion.<sup>85</sup> In Mozambique, South Africa and Zimbabwe, farmers' movements organize training to recover, reproduce and conserve native seeds. Informal sharing among family members and within the community guards against biodiversity loss. If one farmer's crop fails, the genetic material survives in a neighbour's field.

88. In Bosnia and Herzegovina, Cambodia, Chile, China, Colombia, the Congo, Czechia, Mali, Myanmar, the Philippines, Thailand, Viet Nam and Zimbabwe, seed conservation is deeply linked to food cultures, community ceremonies and celebrations, serving to raise awareness about seed sovereignty among younger generations.<sup>86</sup> To counter biodiversity loss from ageing rural populations, communities promote "generational integration", namely, processes in which children and youth learn ancestral wisdom and seed conservation techniques from elders.

89. In China, revived interest in traditional recipes has created niche markets supporting the conservation of old crop varieties. In Thailand, highlighting local varieties in everyday foods communicates the value of seed saving to future generations. In Africa, the "My Food is African" campaign frames seed sovereignty as cultural identity. In Morocco and Tunisia, the promotion of traditional foods is linked to the reintroduction of native varieties and agroecological transitions. For Indigenous and mestizo communities in Guatemala, seeds are sacred, embodying life, community and territory, and feature in spiritual practices and ceremonies.<sup>87</sup>

90. Worldwide, seed recovery, saving and exchange initiatives serve larger social, economic and political purposes, affirming peasant solidarity, self-sufficiency and autonomy against corporate capture. In "food sovereignty areas" in Indonesia, local rice seed varieties are distributed to break dependency on subsidized hybrid seeds. In Nigeria, farmers are being trained in establishing genetically modified organism-free zones to protect local seeds from transgenic introgression. Many peasant networks are developing participatory guarantee systems as community-owned quality assurance mechanisms built on mutual trust, serving as an alternative to market-based certifications that favour commercial seeds and corporate-determined quality criteria.

### D. Legal action, policy advocacy and direct mobilization

91. Peasants have historically used direct action, including marches, sit-ins, pickets, strikes and press conferences, to engage policymakers, the media and the broader public. In Brazil, peasant movements have occupied genetically modified crop testing sites to protest environmental threats and lack of transparency in corporate seed systems.

92. Alongside direct action, peasants and their allies have engaged in legal and policy processes to defend their seed systems and turned to courts to strike down restrictive seed laws that violate their constitutional or human rights.

93. Landmark court cases signal growing judicial recognition that corporate intellectual property rights do not prevail over human rights and that seed governance must prioritize food security, biodiversity and human rights. In Honduras, the Supreme Court struck down the 2012 Plant Variety Protection Law (the "Monsanto Law") in 2021 as unconstitutional for violating the right to adequate nutrition, explicitly citing article 19 of the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas – one of the first judgments to cite the Declaration.<sup>88</sup> The High Court of Kenya in Machakos ruled on

<sup>85</sup> Ibid.

<sup>86</sup> Ibid.

<sup>87</sup> Ibid.

<sup>88</sup> See <https://defendingpeasantsrights.org/en/honduras-supreme-court-uses-undrop-article-19-on-the-right-to-seeds-to-declare-unconstitutional-the-monsanto-law/>.

27 November 2025 that the punitive sections of the Seeds and Plant Varieties Act of 1972, as subsequently amended, were unconstitutional for criminalizing farmers' seed practice. It was established by the court that "seed sharing is not a crime" and that farmers' rights supersede commercial interests.<sup>89</sup>

94. In Nigeria, environmental and civil society organizations have advocated against the introduction of genetically modified organisms since 2017, including by taking the Government to court over approvals granted to Monsanto Agricultural Nigeria Limited.<sup>90</sup> In Colombia, a broad peasant and agroecological movement mobilized against Colombian Agricultural Institute resolution 970 of 2010, which had led to the destruction of farmer-saved rice seeds in Campoalegre, Huila, in 2011 and had criminalized farmers who had saved, exchanged or replanted seed.<sup>91</sup> The resolution was suspended following the 2013 national agricultural strike, but it was subsequently replaced by resolution 3168 of 2015, which retained much of the same restrictive regime, making it a significant but partial victory for peasant seed rights.<sup>92</sup>

95. Communities are proactively shaping legal and policy processes to recognize and protect their seed systems.<sup>93</sup> In Copacata, in the Plurinational State of Bolivia, farmers worked with technical partners to draft a municipal seed protection law for native genetic resources. In Zambia, farmers and civil society coalitions have mobilized against seed law changes aligned with the 1991 Act of the International Convention for the Protection of New Varieties of Plants on the grounds that they would breach international human rights commitments. In Kenya, the Seed Savers Network was nominated to participate in a government technical committee to represent smallholder farmers in the national seed law review. In Mali, the national peasant coalition has initiated a "peasant catalogue" as an alternative to the official variety list, to legitimize non-certified peasant seeds.

96. Peasants are drawing on international instruments to ground their rights claims. Organizations in Mali and Nepal have invoked the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas in national seed policy reviews to secure peasants' rights to save, exchange and sell seeds. Global campaigns led by international and regional peasant movements have successfully prevented Benin from becoming a Party to the 1991 Act of the International Convention for the Protection of New Varieties of Plants. European peasant movements actively promote peasants' perspectives in the European Parliament, arguing against the deregulation of new genomic techniques and for the explicit exclusion of peasant seed exchanges from marketing rules.

## VII. Conclusion and recommendations

### A. Conclusions

97. **Threats and challenges to peasants' right to seeds are being entrenched by intellectual property rights and industrial seed certification regimes, digital technologies and biotechnologies, and trade and investment agreements. These pressures are compounded by insecure land tenure, armed conflict, environmental degradation and the rapid erosion of agricultural biodiversity, which heighten the**

<sup>89</sup> See <https://www.ohchr.org/en/press-releases/2025/12/kenyas-seed-sharing-ruling-milestone-peasants-rights-and-food-security-un>; <https://defendingpeasantsrights.org/en/landmark-victory-for-kenyan-peasants-and-seed-sovereignty/>; and <https://www.greenpeace.org/africa/en/press/59598/historic-victory-kenyan-court-rules-sharing-seeds-is-not-a-crime-in-landmark-verdict-for-food-sovereignty/>.

<sup>90</sup> See <https://homef.org/2017/09/19/court-asked-to-declare-permits-for-gmo-cotton-maize-illegal/>; and <https://homef.org/2018/08/15/court-decides-on-gmo-case-homef-and-csos-pledge-to-fight-on/>.

<sup>91</sup> See [https://www.icbf.gov.co/cargues/avance/compilacion/docs/resolucion\\_ica\\_0970\\_2010.htm](https://www.icbf.gov.co/cargues/avance/compilacion/docs/resolucion_ica_0970_2010.htm) (in Spanish).

<sup>92</sup> See <https://colombiareports.com/colombia-agrees-freeze-decree-banning-non-certified-seeds/>; <https://www.dejusticia.org/en/the-970-and-the-future-of-seeds/>; <https://grain.org/en/article/4779-colombia-farmers-uprising-puts-the-spotlight-on-seeds>; and <https://www.semillas.org.co/es/la-resoluci> (in Spanish).

<sup>93</sup> Examples from the submissions received by the Working Group.

precarity of rights holders under the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas. Rural women bear a disproportionate share of these harms.

98. At the same time, an expanding body of legislative, judicial and community practice points towards a progressive, rights-based approach encompassing environmental stewardship and commons-based governance. Court rulings, *sui generis* plant variety laws and measures to recognize traditional seed systems show that States can realign seed governance with human rights, food sovereignty and biodiversity protection, while still enabling appropriate breeding innovations. Peasant movements are advancing pluralistic, commons-based seed initiatives and participatory plant breeding that sustain *in situ* and on-farm conservation and increase climate resilience.

99. In the hierarchy of international law, human rights obligations prevail over conflicting treaty commitments on trade and intellectual property, a primacy that the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas explicitly reaffirms for the right to seeds. Seeds are living systems embedded in social and biological systems and are essential elements of biodiversity, agriculture and food sovereignty rather than mere commodities or objects of exclusive rights. Through everyday practices of selection, conservation, exchange and breeding, peasants sustain the world's seed systems and are, in turn, sustained by them. Seeds cannot be separated from the territories, living conditions, social relations and ecosystems in which they are developed and reproduced without distorting their nature.

100. Treating seeds as an object of patents, plant breeders' rights or narrow marketing standards decontextualizes them from these dynamic living conditions and criminalizes age-old peasant seed practices and systems, heightening dependence on corporations, biodiversity loss, food insecurity and economic and climate shocks. Conversely, peasant seeds are indispensable to food sovereignty, climate adaptation and sustainable rural livelihoods, particularly where smallholder agriculture, fishing and pastoralism remain principal sources of employment. Regressive approaches contravene States' duties under human rights law, the International Treaty on Plant Genetic Resources for Food and Agriculture and the Convention on Biological Diversity and its Protocols and generate legal and political contestation at the national, regional and multilateral levels.

101. Recent discussions within the framework of the Convention on Biological Diversity, including on digital sequence information and the new multilateral benefit-sharing mechanism, show that biodiversity governance is moving towards stronger recognition of peasants' roles as custodians of genetic resources. The Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture has similarly mandated an inventory of national measures on farmers' rights, which represents an opportunity to make those rights more concrete and operational.

102. States that persist in protecting seed systems primarily by means of exclusive rights and restrictive marketing standards risk undermining these processes and missing opportunities to anchor seed governance in a coherent framework that combines *in situ* conservation, genuine fair benefit-sharing and farmers' rights. Aligning national seed, intellectual property and trade policies with the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas, the Convention on Biological Diversity and the International Treaty on Plant Genetic Resources for Food and Agriculture would instead allow States to strengthen agroecological transitions, enhance food sovereignty and give full effect to the role of peasants as stewards of biodiversity.

103. Recognizing these developments, the Working Group stresses that seeds must be governed first and foremost as the material basis of the rights to life, food, health, culture and a healthy environment and only secondarily as objects of commerce. The Working Group insists on full support for and implementation of in situ and on-farm conservation frameworks with recognition of peasants' indispensable roles in these systems, robust protection of their seed rights and urgent transformation of food systems towards agroecological, rights-based approaches.

## **B. Recommendations**

104. Recalling the primacy accorded to human rights under international law and drawing on the lived experience and proposals of peasants, the Working Group makes the recommendations set out below.

105. The Working Group recommends that States:

(a) Domestic article 19 of United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas, guaranteeing peasants' individual and collective rights to save, use, exchange, develop, breed and sell farm-saved seed, and exempt traditional seed systems from certification and marketing rules for industrial breeding and commercial seed markets;

(b) Recognize, support and scale up traditional seed systems and the knowledge that sustains them, through public resources, and support peasants to strengthen community-managed, commons-oriented governance systems, including voluntary participatory guarantee systems and other local seed quality assurance mechanisms;

(c) Refrain from implementing the 1991 Act of the International Convention for the Protection of New Varieties of Plants and laws that restrict farmers' privilege to save, exchange and sell protected varieties, instead developing or strengthening sui generis seed systems suited to national agrobiodiversity and local farming realities;

(d) Review and repeal regulatory, penal and administrative provisions that criminalize or restrict the saving, exchange or sale of peasant seeds, and ensure that enforcement of seed and intellectual property laws is consistent with constitutional guarantees and international human rights obligations;

(e) Provide legal remedies for peasants to challenge and oppose seed registration, certification and patents that fail to ensure prior informed consent, misappropriate traditional knowledge and violate their rights;

(f) Advance equitable, redistributive land reform and secure tenure over land, territories and water for peasants, as the right to seeds depends on secure access to the territories and ecosystems where seeds are grown, conserved and exchanged;

(g) Ensure the active, free and meaningful participation of rights holders under the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas in the design, implementation and monitoring of seed, intellectual property, trade, biosafety and agricultural policies and laws that affect their right to seeds;

(h) Guarantee rural women's equality in seed governance through secure land tenure, equal representation on relevant decision-making bodies and recognition of women's customary knowledge and role as primary seed custodians, in line with general recommendation No. 34 (2016) of the Committee on the Elimination of Discrimination against Women;

(i) Redirect agricultural budgets, research and extension services towards agroecology, traditional seed systems, community seed cooperatives, stores and banks, seed fairs and participatory plant breeding, and integrate these approaches into public support schemes, social protection and climate and biodiversity strategies;

(j) Adopt and implement robust anti-biopiracy and access and benefit-sharing laws, including mandatory disclosure of origin or source and, for genetic resources, prior informed consent and mutually agreed terms;

(k) Ensure that trade, investment and economic partnership agreements and cooperation with international financial institutions do not oblige Governments to adopt intellectual property regulations and laws that undermine peasants' rights to seeds and biodiversity, and conduct human rights and environmental impact assessments before ratifying or implementing such instruments, giving precedence to human rights and environmental obligations in case of conflict;

(l) In situations of armed conflict, occupation, environmental disaster and other crises, recognize traditional knowledge, community seed pools and related infrastructure as civilian objects essential for the survival of the population, and ensure that humanitarian and recovery programmes support the restoration and strengthening of traditional seed systems rather than creating dependence on proprietary commercial seed.

106. The Working Group makes the following recommendations to United Nations entities and international and regional organizations:

(a) FAO and the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture should give full effect to farmers' rights under article 9 of the Treaty, strengthen the transparency and accountability of the Multilateral System, increase the share of the Benefit-sharing Fund directed to traditional seed systems and community seeds initiatives, and, together with the Convention on Biological Diversity process, resolve the treatment of digital sequence information so that the dematerialization of genetic resources cannot be used to circumvent benefit-sharing obligations or to patent traits derived from peasant and Indigenous varieties;

(b) International financial institutions should discontinue attaching conditionalities to loans, aid packages and technical assistance that require becoming a Party to the 1991 Act of the International Convention for the Protection of New Varieties of Plants or other restrictive seed and intellectual property legislation, and align agricultural lending with international human rights norms;

(c) The World Intellectual Property Organization, OECD and other relevant standard-setting bodies should ensure that current and proposed intellectual property, seed marketing and certification standards for plant varieties and associated technical assistance comply with international human rights norms, and establish measures that protect peasants from misappropriation of knowledge and biopiracy;

(d) The United Nations human rights treaty bodies and regional human rights treaty bodies should integrate the right to seeds into their engagement with States and provide guidance and support for the domestication and implementation of the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas, including through general comments, guidelines, jurisprudence and recommendations;

(e) FAO, the International Fund for Agricultural Development and the World Food Programme should ensure that seed assistance prioritizes traditional seed systems, encompassing seed fairs, voucher systems, community seed cooperatives and banks and multiplication of locally adapted, farmer-managed varieties, rather than recurrent distribution of imported commercial seed that may be ill suited to local conditions and undermine traditional seed systems.

107. The Working Group recommends that business enterprises, including seed, agrochemical and biotechnology companies, financial actors, research institutions and digital agriculture providers:

(a) Align seed-related operations with the responsibility to respect human rights, including through human rights policies and due diligence processes consistent with the Guiding Principles on Business and Human Rights and the United Nations

**Declaration on the Rights of Peasants and Other People Working in Rural Areas that explicitly assess the impacts of intellectual property enforcement, licensing practices, technological choices and market conduct on peasants' rights;**

(b) **Cease the development, commercialization and use of genetic use restriction technologies and contractual terms that override or nullify farmers' right to seeds, and comply fully with access and benefit-sharing obligations under the Nagoya Protocol and the International Treaty on Plant Genetic Resources for Food and Agriculture, including by disclosing the geographical origin of genetic material and associated traditional knowledge used in breeding;**

(c) **Engage in active, free, transparent and meaningful consultations with peasants on seed-related research, policies and business strategies, ensuring that such engagement supports, rather than displaces, peasants' own initiatives and agroecology schools.**

**108. The Working Group recommends that civil society and peasant organizations:**

(a) **Continue to document and report violations and positive developments concerning the right to seeds, to inform monitoring, standard-setting and follow-up;**

(b) **Pursue strategic litigation and other strategies grounded in human rights, building on progressive precedents and affirming that peasants' rights to seeds, food and nutrition prevail over conflicting commercial interests;**

(c) **Sustain and expand community seed cooperatives and banks, seed houses and fairs, participatory plant breeding and participatory guarantee systems as community-led alternatives to certification regimes designed for industrial seed systems and as means of conserving agrobiodiversity, strengthening food sovereignty and transmitting intergenerational knowledge;**

(d) **Strengthen local, national, regional and transnational networks, alliances and campaigns to defend the right to seeds and related rights in legislative, trade, investment, climate and biodiversity processes and to advocate for the exclusion of traditional seed systems from restrictive marketing and intellectual property rules.**

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