EVOLUTION OF THE ROLE OF AGRICULTURAL AND FOOD SYSTEMS WITHIN THE UNCCD

Issues surrounding agricultural and food systems (agrifood systems) are increasingly being integrated into the discussions and priorities of the United Nations Convention to Combat Desertification (UNCCD), with a direct link to land restoration, resilience, soil health, and food security.

The FAO defines agri-food systems as a comprehensive framework encompassing the actors and their interconnected activities that contribute to the production of both food and non-food agricultural products. These activities cover the entire process, from production to processing, from distribution to sale and consumption, and through to waste management[1] .

At the 16th Conference of the Parties (COP16 – Riyadh, Dec. 2024), issues related to agricultural and food systems were discussed, and a thematic day was dedicated to food systems.

⇨ For more information, see **the analysis note on "Agricultural and Food Systems"** prepared for COP16.

At the 17th Conference of the Parties (COP17), to be held in Ulaanbaatar (Mongolia), from August 17 to 28, 2026, a thematic day on food systems and soil health will take place on August 27 and will be co-organized with the *Agroecology Coalition*.

> *The* **Agroecology** *Coalition* is a global initiative launched in September 2021 during the United Nations Food Systems Summit. This initiative promotes the transformation of food systems through agroecology. It brings together governments, international organizations, NGOs, farmer groups, and experts committed to implementing a transition toward sustainable food systems, based on the 13 principles of agroecology defined by the HLPE (High-Level Panel of Experts on Food Security and Nutrition) and aligned with the 10 elements of agroecology adopted by the FAO. Its goal is to address the climate, biodiversity, and food security crises by promoting environmentally friendly, inclusive, and participatory agricultural practices.

During these thematic days, several events – often in the form of roundtables, side events, and conferences – take place, and civil society organizations should ensure they are present to present their perspectives and recommendations on the topic.

⇨ Find the program for this thematic day here: open

[1] FAO, 2022, Introducing the Agrifood Systems Technologies and Innovations Outlook, Rome: FAO

What's new for COP17

a. Pastures, rangelands, and agrifood systems: interconnected challenges

Reference document: ICCD/COP(16)/21-ICCD/COP(16)/CST/9 "New emerging issues: grassland, rangeland, and ecologically sustainable agrifood systems"

A note from the secretariat directly links the challenges surrounding agricultural and food systems to the health of grasslands and rangelands. Indeed, when healthy and productive, grasslands and rangelands are an essential component of ecologically sustainable agricultural and food systems that provide nutritious food and ensure people's livelihoods.

The UNCCD considers grasslands and rangelands to be productive ecological systems that feed livestock, support pastoral systems, and contribute to the production of meat, milk, and dairy products. If these ecosystems degrade, the entire animal food chain is weakened. The sustainable management of grasslands and rangelands is therefore considered a structural prerequisite for food security, as it ensures livestock productivity and ecosystem stability.

To achieve "environmentally sustainable" grasslands, rangelands, and agrifood systems, the convention focuses particularly on the development and adoption of sustainable land and water management practices that improve the livelihoods of local populations and the functioning of ecosystem services, considering the following dimensions:

- **Environmental,** including biodiversity, carbon sequestration, soil health, and water regulation.
- **Social,** including food security, livelihoods, and cultural heritage.
- **Economic,** including employment, economic development, supply chain support, and migration.

b. Agroecology as a component of regenerative agriculture for healthy agricultural and food systems

In its note, the Secretariat highlights the benefits of agroecological practices as components of "regenerative agriculture," which is described as *"an umbrella approach that has been defined as a collection of agroecological principles and practices that can be applied to virtually all land-based commodity production landscapes (e.g., crops, livestock, fibre, raw materials)"*[2]

Paragraph 22 reiterates the benefits of agroecological practices for sustainable land and water management – soil regeneration, more efficient use of inputs and water resources, preservation of biodiversity, carbon sequestration, reduction of greenhouse gas emissions – noting in particular that these practices help strengthen food security, create jobs and entrepreneurial opportunities, and preserve the livelihoods of farms and rural areas.

c. Agricultural lands and soils at the heart of sustainable agricultural and food systems

In Decision 19/COP.16 on "Preventing, reducing, and reversing land and soil degradation of agricultural lands," the Parties recognize that *"sustainable, socioeconomically viable and resilient*

[2] p. 11

agriculture and food systems are grounded in healthy and fertile soils, nutritious, locally adapted and diverse crops, and biodiversity friendly and resilient cropping systems."[3]

➔ **It is important to note that this is the first official UNCCD decision in which the word "soil" appears explicitly. In this context, soils are given full recognition, and issues related to their health must be taken into consideration by the Parties.**

In this same decision, the FAO and other relevant partners were asked to collaborate in providing support to the Parties by developing a guide to:

- Promote sustainable land use and responsible governance to prevent and reverse the degradation of agricultural land and soils;
- Encourage the adoption of sustainable and diversified cropping systems and crops to improve food security and nutrition in a context marked by climate change and environmental degradation.

The topic of agricultural land and soil will be on the agenda of the 17th Committee on Science and Technology (CST-17), which will be held in parallel with COP17.

The Committee on Science and Technology (CST) of the UNCCD is a subsidiary body of the Conference of the Parties (COP). Its primary role is to provide information and advice on scientific and technological issues related to combating desertification and mitigating the effects of drought. The CST's mission is to inform the COP on the scientific and technological aspects of the convention, drawing on expert knowledge and evidence-based data. It promotes dialogue among scientists, technologists, and policymakers at all levels (local, national, regional, and international).

➔ The CST's recommendations and opinions are submitted to the COP, which makes the final decisions. The CST thus plays a key advisory role in guiding the policies and actions of the UNCCD.

In a note from the Secretariat on "Preventing, reducing, and reversing land and soil degradation of agricultural lands"[4] , the Committee on Science and Technology (CST) is invited to base its decisions at COP17 on seven points:

- The strategic importance of agricultural land for LDN, food security, and nutrition challenges
- The three pillars of land degradation neutrality—avoid, reduce, reverse—to effectively combat the degradation of agricultural land and soil
- Integrated planning, sustainable soil and water management, and resilient production systems
- Enabling conditions for implementation (governance, land tenure, financing)
- Community well-being and livelihoods
- Incorporating future challenges related to agricultural issues into planning
- Active knowledge systems for the Parties

Note: Agroecological approaches, as integrated and diversified production systems, are included among the possible options for improving soil health, water regulation, biodiversity, resilience,

[3] Decision 19/COP.16 p. 59
[4] ICCD/COP(17)/CST/4

and productivity while reducing the risk of environmental and social harm and supporting the livelihoods of local communities[5] .

d. Water management in agricultural and food systems

The UNCCD recognizes that water—its availability and use—is one of the essential components for maintaining healthy and productive agricultural and food systems.

Issues related to water resource management are addressed, in particular, through the management of water scarcity and adaptation to climate change. The convention emphasizes the need to understand the variability of water resources, its effects, and the challenges it poses, particularly in arid and semi-arid areas where land degradation and more frequent droughts are increasing pressure on water resources. Water is considered a key factor in the biological functioning of soils, and the health of agricultural systems depends directly on the ability of soils to regulate water.

Poor water management accelerates soil degradation. For example, water erosion – which can be caused by heavy rains and runoff – washes away fertile soil layers, reducing soil productivity. Over-exploitation of groundwater and reduced river flows can dry out ecosystems, thereby accelerating vegetation loss and soil degradation. Conversely, sustainable water management – Including, for example, rainwater harvesting techniques, the restoration of wetlands and watersheds, and agroforestry – can help rehabilitate soils, stabilize ecosystems, and improve soil fertility.

During COP17, there will be a thematic day dedicated to water on August 25. This day will address the topics of integrated water management and resilience. Two global initiatives will be launched :

- **Water-Land Nexus Initiative**: a regional or global partnership aimed at promoting integrated land and water resource management in arid regions. Launched by the Mongolian government and developed in collaboration with international organizations.
- **Nature-Based Solutions for Resilient Infrastructure Initiative**: A global initiative aimed at integrating land-use planning and nature-based solutions and mobilizing public-private partnerships. Launched by the Mongolian government and developed in collaboration with international organizations.

Note: Specific issues related to drinking water and sanitation are primarily addressed by other United Nations entities, such as UN-Water, which coordinates and supports activities at the international level to achieve Sustainable Development Goal (SDG) 6: Ensure access to water and sanitation for all and ensure sustainable water resource management.

Outlook for COP17

a. Advocacy on rangelands and pastoralism

COP17 represents a window of opportunity for civil society organizations engaged in the fight against desertification, land degradation, and drought. For the first time, rangelands and pastoralism are among the explicit policy priorities of COP17, in the context of the International

[5] ICCD/COP(17)/CST/4, paragraph 34, p. 8

Year of Rangelands and Pastoralists (IYRP 2026) and the decision on rangelands and pastoralists[6], adopted at COP16 (Riyadh, Dec. 2024).

In this context, coordinated advocacy by civil society can help transform recent political recognition into concrete commitments regarding land governance, financing, recognition of pastoralist communities' rights, and the sustainable restoration of pastoral ecosystems.

⇨ For more information, see the note from the Groupe de Travail Désertification (GTD): ***"Rangelands and Pastoralism: how are they addressed in international land negotiations?"***

b. Continue advocacy on agroecology

Agroecology is a holistic approach that combines ecological and social principles to redesign agricultural and food systems that are ecologically, economically, and socially sustainable. Its principles are based on the functioning of biodiversity, local knowledge, and integrated natural resource management, placing local communities at the center of decision-making. It is not limited to a single technique but offers a comprehensive vision for rethinking our relationship with the land, food, and communities.

Within the UNCCD, agroecology is being incorporated gradually, but its inclusion remains limited and implicit.

The term "agroecology" is not always used consistently in the convention's texts and decisions, although its objectives align closely with the principles of agroecology. To combat desertification, land degradation, and droughts, the UNCCD promotes approaches that improve soil health, sustainable productivity, and ecosystem resilience, key components of agroecological practices.

The principles of agroecology are consistent with the issues addressed and the actions supported by the UNCCD. Furthermore, many of the practices promoted by the convention are, in fact, agroecological (agroforestry, soil conservation practices, reduction of chemical inputs, etc.).

The principles of agroecology: a relevant approach to addressing certain issues within the UNCCD

ISSUES	PRINCIPLE	MEANS
Ecological sustainability	Agroecology promotes biodiversity, soil health, and integrated resource management (water, nutrients, energy).	* By diversifying crops and incorporating practices such as crop rotations, mixed cropping with livestock, and hedgerows, it reduces dependence on chemical inputs and enhances resilience to diseases and climate hazards. * No-till techniques, agroforestry, and the use of compost improve soil structure, water-holding capacity, and long-term fertility, thereby limiting erosion and desertification. * Agroecological systems optimize water use through practices such as rainwater harvesting, drip irrigation, and plant cover, thereby reducing water stress.

[6] Decision 29/COP.16 *"Rangelands and pastoralists"*

Resilience to Climate Change	Agroecology relies on diversity and local adaptation to mitigate climate risks.	* Regarding adaptation challenges, diversified systems are less vulnerable to extreme events (droughts, floods) because they spread risks across multiple crops and species. * Regarding mitigation challenges, by storing carbon in the soil (through agroforestry or conservation practices) and reducing greenhouse gas emissions (less nitrogen fertilizer, less mechanization), agroecology contributes to the fight against climate change. * Regarding self-sufficiency, by reducing dependence on external inputs (pesticides, synthetic fertilizers), farmers become less vulnerable to price fluctuations and supply disruptions.
Social and Economic Equity	Agroecology places small-scale producers, local communities, and traditional knowledge at the heart of the system.	* Promotes food sovereignty by enabling communities to produce healthy, diverse food tailored to their needs, while reducing dependence on global markets. * It promotes local value creation. Short supply chains, local processing, and direct sales strengthen rural economies and reduce post-harvest losses. * Promotes inclusion, particularly that of women, who are often the custodians of traditional knowledge and play a key role in the agroecological transition, thereby promoting gender equality.
The Resilience of Food Systems	Agroecology promotes decentralized, diversified food systems adapted to local contexts.	* By diversifying production, it ensures a diet that is richer in nutrients and less vulnerable to shocks (prices, climate, diseases). * Unlike monocultures, agroecological systems maintain stable yields over the long term, even under difficult conditions. * Reducing the use of pesticides and chemical fertilizers limits soil and water pollution and reduces health risks for consumers and farmers.
Innovation and Shared Knowledge	Agroecology encourages the exchange of knowledge among farmers, researchers, and communities.	* Solutions are tailored to local realities through a combination of traditional knowledge and scientific research. * Farmers' networks (such as farmer seed groups) enable constant improvement of practices and continuous learning.

However, despite significant practical alignment, agroecology is not yet recognized as a framework within the Convention, and official texts tend to favour more neutral or technical terms, such as sustainable land management, ecosystem restoration, or regenerative agriculture. At this stage, agroecology is viewed more as a set of practices or an approach to be promoted alongside other options.

➔ **Agroecology's place within the Convention's official framework must yet be recognized more explicitly and strengthened, particularly to highlight its systemic, social, and territorial dimensions, which can contribute to better coordination between drought adaptation, food security, and natural resource governance.**

c. Continue advocacy on agricultural lands and soils

The health of agricultural soils and lands is central to the implementation of Land Degradation Neutrality (LDN), as it directly determines the ability of agricultural ecosystems to maintain their productivity, biodiversity, and ecological functions. Its importance can be analyzed through its three pillars :

- Preventing land degradation: Soil health is the first line of defense against land degradation. Soils rich in organic matter, well-structured, and biologically active are more resistant to erosion, drought, flooding, and loss of fertility.
- Reducing land degradation: When degradation processes are already underway, sustainable land management can slow or reverse their progression. Soil health then becomes a driver of resilience.
- Restoring degraded land: The restoration of degraded land cannot be sustainable without rebuilding soil health and, consequently, restoring soil functions.

Considering the health of agricultural land and soil also makes it possible to implement the LDN at the regional level. The effective implementation of the LDN depends on the ability to take act in regions with different characteristics and challenges. Localized information on soil health provides a better understanding of a region's capabilities and vulnerabilities, guides land-use decisions, reconciles competing land uses, and strengthens regional resilience to climate change. It thus serves as a key strategic indicator for guiding policies on land-use planning, rural development, food security, climate, and sustainable land management.

➔ **The recent official recognition of agricultural soils by the UNCCD appears to reflect a desire to shift from a comprehensive approach to land, focused on land cover and land use, to a more detailed analysis of the biophysical functions of soils, which are considered a central component of agricultural systems and an essential foundation for agricultural production. This also marks a recognition of the direct link between agricultural systems and the health of agricultural soils.**

d. Continue advocacy on water management

The UNCCD therefore focuses primarily on the issue of agricultural water and its link to sustainable land management and the fight against desertification, with the goal of improving the resilience of ecosystems and rural communities, particularly through sustainable agricultural practices and better management of water resources for irrigation and food production. However, this objective is difficult to translate into concrete action on the ground, because while frameworks such as Integrated Water Resources Management (IWRM) are promoted, they do not fully address the challenges surrounding sustainable water management which can only be effective by taking into account the functioning of ecosystems and the various uses of water. Sustainable water management requires rethinking water resources as a set of interconnected environmental, social, and economic factors.

Furthermore, water resource management and its implementation at the local level face several recurring obstacles, such as:

- Institutional fragmentation. Several ministries (agriculture, environment, energy, etc.) manage water without meaningful coordination, leading to conflicting policies.

- Conflicts over water uses and prioritization. The increasing scarcity of resources creates tensions between different uses, exacerbated by the lack of shared rules for defining priority uses.
- Unequal access to the resource. Whether social, technical, or even regional, inequalities are a major obstacle to equitable and sustainable water management.
- A lack of reliable and accessible data.
- Political and geopolitical constraints taking precedence over local initiatives.
- Loss of trust in institutions. Decisions lacking transparency, consultations with no real impact, and controversial projects undermine the legitimacy of institutions.

➔ **Addressing water management challenges must not be limited to a utilitarian and economic perspective. Ecological and social dimensions must also be considered to achieve coherent, integrated, and sustainable public policies that promote more equitable governance involving diverse water users, thereby balancing different water needs across a region while preserving water resources.**

Healthy agricultural and food systems: a necessity for reducing regions' vulnerability to droughts

The health of agricultural and food systems is an essential component in fostering the resilience of regions to extreme weather events, such as droughts, which are exacerbated by climate change. The health of these systems depends on several criteria that the principles of agroecology help to support.

A healthy agricultural and food system is generally more diverse and functional. Diversifying crops, varieties, and practices reduces dependence on a single vulnerable production method. In the event of a drought, for example, certain more resilient species or varieties continue to produce, thereby limiting overall losses.

Soil quality is also a key factor. Soils rich in organic matter and well-structured retain water more effectively. They act as veritable "sponges" that hold water, thereby reducing the risk of water stress.

The resilience of local food systems is another important factor. When food systems are shorter and more diversified (local supply chains, local processing, multiple outlets), they are less vulnerable to logistical disruptions or fluctuations in global markets. This helps ensure a continuous supply even in times of crisis.

Another key point is that healthy agricultural and food systems support social cohesion in rural areas. A vibrant agricultural sector sustains jobs, traditional skills, and mutual aid networks—all of which are essential for collectively weathering crises. This social dimension is often just as important as the technical aspects.

Agroecology and its principles directly contribute to the health of agricultural and food systems by reintroducing diversity, strengthening natural ecological processes, and reducing economic and social vulnerabilities. It is precisely this combination that makes agroecology a key driver of regional resilience in the face of extreme weather events such as droughts.

Désertif'actions: building and promoting a joint advocacy effort for regional resilience to droughts

The 6th edition of Désertif'actions focuses on the resilience of regions to droughts. This theme was explored from multiple angles through four subthemes – Transformation of agricultural and/or sedentary livestock systems, Support for mobile production systems (with a focus on Pastoralism), Territorial management of water resources, and territorial governance – which facilitated dialogue and addressed drought resilience in its environmental, social, and economic dimensions.

Several recommendations regarding the relevance of agroecological principles for resilient agricultural systems and the implementation of water security at the regional level were collectively developed through a multi-stakeholder dialogue during the 6th edition of Désertif'actions.

The COP17 conference will provide an opportunity to present these recommendations and incorporate them into the CSOs statements during the dedicated plenary sessions.

Supporting the agroecological transition toward agricultural systems that are more resilient to droughts

Here are the main collective recommendations to promote the agroecological transition of agricultural systems:

- Make agroecology an international and national priority by explicitly incorporating it into agricultural, food, and climate policy frameworks.
- Mobilize public funding as a lever to secure transition pathways.
- Build viable local economic models and sustainable markets.
- Rebuild knowledge, advisory, and training systems.

Toward democratic and sustainable water governance

Here are the main collective recommendations for equitable, sustainable, and resilient water management:

- Establish more inclusive and transparent water governance at all levels
- Develop public policies that respect planetary boundaries
- Make transparency and knowledge the foundation of collective decision-making
- Invest in human, social, and organizational capacities
- Promote inclusive and tailored financing mechanisms

⇨ Find all the details of these recommendations in the dedicated Désertif'actions notes:

- ✓ **"Agroecology to equip agricultural systems to cope with drought"**
- ✓ **"Working together to build water security: an imperative"**