AGRICULTURAL AND FOOD SYSTEMS

Provisional version - October 2024

This note was prepared by CARI as part of the PASS-LCD Project.[1]

With a view to COP16, CARI offers its analysis of the place of agricultural and food systems within the UNCCD.

The first part of the note sets out how the subject has been considered within the Convention since its adoption in 1994.

The second part of the note explores the advances that will be expected at COP16 and proposes recommendations to contribute to the debates and negotiations on agricultural and food systems.

PART I: CONSIDERATION OF AGRICULTURAL AND FOOD SYSTEMS IN THE UNITED NATIONS CONVENTION TO COMBAT DESERTIFICATION

This section provides definitions and background information based on reading and analysing the main publications of the United Nations Convention to Combat Desertification (UNCCD): initial text of the Convention, framework strategies, reports of the Conferences of the Parties.

a) Introduction

The FAO defines agrifood systems as all the interconnected activities and players involved in getting food from the field to the plate. This broad definition encompasses everything from agricultural production to processing, distribution, consumption and waste management. According to the FAO, a sustainable food system ensures food security and nutrition for all, without compromising the economic, social and environmental foundations of food security and nutrition for future generations.

➔ **A sustainable food system must therefore guarantee economic, social and environmental sustainability.**

Land and water underpin food systems, as the primary resources for producing food through agriculture and livestock farming. Land degradation therefore has a direct impact on production activities, and by extension on food systems.

➔ **The inclusion of food systems within the UNCCD - which deals with issues of land and ecosystem degradation, as well as drought - is therefore particularly relevant.**

[1] PASS-LCD: Structured action programme for actors in the combat against desertification (2023-2026) implemented by CARI, ENDA Pronat and ReSaD. Co-financed by AFD.

b) Land degradation and food systems: interconnected issues

The arid, semi-arid and dry sub-humid areas targeted by the UNCCD are the habitat and source of livelihood for a large proportion of the world's population. As early as its founding text[2] in 1994, the Convention recognised the correlation between desertification, drought and major social problems such as poverty and food insecurity.

In 2022, with the publication Global Land Outlook[3] , the UNCCD highlighted that "current global food systems are among the main sources of land degradation. Globally, they are responsible for 80% of deforestation, 70% of freshwater use, and are the largest cause of terrestrial biodiversity loss".

In a preparatory note for COP16[4] , the UNCCD secretariat notes that current agrifood systems are contributing to climate change, land degradation and biodiversity loss, and are themselves suffering from these phenomena. The note states that "various types of pressure, arising from population growth, urbanisation and changing consumption patterns, are jeopardising the ability of agrifood systems to provide nutritious food and contribute to improved livelihoods. Agrifood systems therefore face a triple challenge: i) to ensure food security and nutrition for a growing population; ii) to support the livelihoods of millions of farmers and other food chain actors; iii) to do so in an environmentally sustainable way. The urgency of the situation and the challenges ahead are clear: more than 738.9 million people will go hungry in 2022, and the effects of climate change have meanwhile reduced global agricultural productivity by around 21% since 1961".

In support of these findings, the latest IPCC report[5] states that "the vulnerability of ecosystems to climate change will be exacerbated by unsustainable global consumption and production, increasing population pressures and the continued unsustainable use and management of land, oceans and water. Unsustainable agricultural expansion, due in part to unbalanced diets, increases the vulnerability of ecosystems and people and leads to competition for land and/or water resources".

In the run-up to COP16, the UNCCD's Science-Policy Interface (SPI) has been working on the current state of aridity and future trends[6] . "Characterised by an imbalance between precipitation and atmospheric evaporation demand, aridity can lead to sudden changes in ecosystems", the SPI is analysing the potential impact on agricultural and food production:

- "Reduced soil fertility and productivity, leading to lower crop yields and poorer pasture quality.
- As the productivity of agricultural systems is highly dependent on water availability, crops grown in arid zones are particularly exposed to the risks associated with climatic variations.
- Intensive grazing accentuates the degradation of vegetation and grasslands, which can lead to a change in the composition of livestock species and a drop in overall food production, exacerbated by increasing aridification".

Aridity is a long-term climatic condition marked by low average precipitation or water availability in a region (IPCC definition, 2021).
Arid zones account for 40.6% of land area, an increase of 3% compared with the 1961-1990 period (SPI, 2022).

[2] UNCCD, preamble
[3] Global Land Outlook - Second edition
[4] Note by the Secretariat on emerging issues: agrifood systems, rangelands and pastures ICCD/COP(16)/21-ICCD/COP(16)/CST/9
[5] Analysis of the 6th climate change assessment report by the SPI - ICCD/COP(16)/CST/4
[6] SPI report on changing aridity trends and future projections ICCD/COP(16)/CST/3

c) The solutions that have been promoted to date

For the 5 regions of the world considered as affected in an appendix to the Convention[7], the 1994 text[8] sets out guidelines that must be integrated into action plans to combat desertification. For countries on the African continent, the recommended measures include :

- Developing markets for agricultural and livestock products
- Diversification in agriculture
- The use of drought-resistant crops and integrated arido-culture systems to ensure food security.
- Integrated and sustainable management of natural resources, including agricultural and pastoral land and water resources.

➔ **Although this initial vision of the UNCCD made it possible to integrate agricultural and environmental issues, its implementation, which was generally entrusted to the ministries responsible for the environment, did not result in much political integration at national level.**

As a result, discussions at global level during the COPs have focused on land and ecosystems in general, without taking specific account of agro-ecosystems and therefore agricultural and pastoral production.
However, the UNCCD has identified a large number of sustainable land management practices, which are often implemented in agricultural and pastoral areas, and which are therefore relevant to sustainable agricultural and food systems.

To combat desertification, land degradation and drought, the UNCCD's 2018-2030 strategy[9] indicates the need for "long-term integrated strategies, focusing simultaneously on improving land productivity and on the rehabilitation, conservation and sustainable management of land and water resources".

➔ **By incorporating a specific objective of improving the living conditions of the populations affected, this strategic framework considers food security and the livelihoods of the populations in the affected areas as priorities.**

Since 2019, several voices have been raised within the UNCCD calling for a change in production and consumption patterns. At recent meetings of the UNCCD (COP14, COP15 and CRIC21), Parties have called for :

- "To change behaviour through strategies that are based on the reuse of resources and at the same time address environmental and social issues,
- Transitioning food systems from industrialised agriculture to agroecological solutions to preserve the balance between food, energy and the environment".[10]
- "Tackling current consumption patterns that remain unsustainable and the fact that emerging technologies are unlikely to be able to meet the growing global demand for food,
- Recognise that localising and increasing the resilience of food production will be key to mitigating the global risks of climate change and land degradation".[11]
- "To halt the conversion of natural areas and to halt, or at least significantly reduce, the artificialisation of land and the sealing of soil so that, in future, the rapid expansion of artificial surfaces currently observed does not take place at the expense of land covered by natural vegetation and fertile soil".[12]

[7] Africa, Asia, Latin America and the Caribbean, Northern Mediterranean, Central and Eastern Europe.
[8] UNCCD, Annex 1
[9] Strategic framework of the Convention (2018-2030), introduction.
[10] High-level segment of COP14 (2019, New Delhi) - Report of COP14
[11] High-level segment of COP15 (2022, Abidjan) - COP15 Report
[12] CRIC21 session (2023, Samarkand) - CRIC21 report

At the last two Conferences of the Parties - COP14 (New Delhi, 2019) and COP15 (Abidjan, 2022) - nature-based solutions were promoted as responses to the challenges facing agricultural and food systems. Agroecology has also gained recognition within the framework of the UNCCD, through the work of the Global Land Outlook[13] and the decisions of COP14.

The summary for decision-makers from the Global Land Outlook 2022 states that "many traditional and modern food production practices can enable agriculture to move from being the main cause of degradation to being the main driver of land and soil restoration. This is the case for sustainable alternatives, inspired by agroecological approaches, which are mentioned as being affordable and effective".

Decision 20 of COP14 encourages "Parties, as appropriate, to enhance opportunities to achieve land degradation neutrality by systematically linking consumption flows to the land that produces what is consumed, which would require *(inter alia)*: Taking into account the importance and diversity of indigenous and local knowledge and practices, as well as agroecological principles and practices".
Decision 23 of COP14 on the promotion of drought-related policies: "invites Parties to use various technical approaches, such as sustainable land and water management, agroecological approaches, ecosystem restoration and watershed management, to address drought and increase the resilience of ecosystems and populations".

PART TWO: THE PROGRESS EXPECTED AT COP16 AND THE SCOPE FOR ACTION

This section deciphers the envisaged content of the COP16 negotiations on the challenges facing agricultural and food systems. It explores the opportunities that will arise for agroecology to be given greater consideration in these negotiations.
This section is based on a reading and analysis of the preparatory documents for the following sessions scheduled for December 2024:

- *Science and Technology Committee (CST16)*
- *Committee for the Review of the Implementation of the Convention (CRIC22)*
- *Conference of the Parties (COP16)*

a) Agricultural and food systems: a topic for discussion at COP16

At COP16, the challenges facing agricultural and food systems will once again be discussed under several agenda items, detailed below.

At a **high-level interactive dialogue on sustainable, resilient and inclusive agrifood systems**[14] scheduled for 5 December 2024.

The interactive dialogue sessions enable the various stakeholders, i.e. ministerial representatives, civil society organisations, the business community, the scientific community and international organisations, to discuss a topic of interest within the UNCCD.

[13] Global Land Outlook - Summary for decision-makers
[14] Provisional agenda for COP16 ICCD/COP(16)/1/Rev.1

The discussions at these sessions are included in the COP16 report. Although they do not lead directly to decisions, they can provide input for discussions at the other COP16 sessions, and possibly foreshadow new topics for decisions at subsequent COPs.

⇨ **It is therefore essential that CSOs follow this interactive dialogue and take the floor to express a collective point of view on the issues weighing on food systems and the relevant solutions for improving their sustainability.**

To frame this high-level interactive dialogue, the UNCCD secretariat has developed a note on "Emerging issues: pastures and rangelands and ecologically sustainable agri-food systems"[15] . This note states that "healthy and productive pastures and rangelands are an indispensable component of an ecologically sustainable global agri-food system, and that they provide livelihoods and an essential source of nutrition for people around the world".
The note takes stock of sustainable land and water management practices for crops and pastures, considering the three dimensions of sustainable development (environmental, economic, social).
Finally, the secretariat's note proposes a framework for reconciling the achievement of land degradation neutrality (LDN) and sustainable agricultural and food systems, supported by case studies from various countries, the main information on which is summarised in the table below.

Pillars of LDN	Issues relating to productive land	Examples of practices cited
Avoiding land degradation: by obtaining higher and more regular yields from cultivated land to reduce the need to cultivate new land	**Improving productivity:** improving soil fertility and structure	- Crop rotation - Conservation tillage - Agroforestry - Conservation agriculture
	Efficient use of water: healthy soils rich in organic matter retain water more effectively	- Drought-resistant varieties
Reducing land degradation: towards more resilient farming systems capable of maintaining high productivity	**Sustainable practices:** preserving soil health and improving biodiversity	- Integrated pest management - Organic farming - Permaculture - Integrated grazing system - Multi-crop farming and crop rotation
	Soil conservation: reducing soil erosion and the loss of productive elements	- Terrace design - Contour cultivation - No-till farming - Cover crops - Minimum tillage
Halting land degradation: regenerating degraded land and making it viable again for agriculture	**Restoration techniques**	- Agroforestry
	Restoring degraded land	- Chinese "grain for green" project

⇨ **This framework note from the UNCCD secretariat provides a basis of reference for the joint declarations by civil society. However, there is one point to bear in mind:**

Concerning the approaches being promoted to transform farming systems: the secretariat's note makes several references to regenerative agriculture and conservation agriculture.
For many stakeholders, *regenerative agriculture* is too narrow an approach in the basket of ecologically intensive farming options. It does not have a broad enough technical and theoretical basis to address food systems as a whole.
Similarly, *conservation agriculture* does not explicitly rule out the use of harmful practices such as chemical weeding with glyphosate, which reduces soil life in the long term.

[15] Emerging issues: pastures and rangelands and ecologically sustainable agrifood systems - Note by the secretariat ICCD/COP(16)/21-ICCD/COP(16)/CST/9

⇨ **We propose to speak of agroecology, as the approach is better defined at international level with the FAO's 10 elements and the 13 principles of the High-Level Panel on Food Security and Nutrition. Agroecology also more clearly encompasses a social dimension, which is necessary for a fair and inclusive transformation of agricultural and food systems. The existence of an international coalition on agroecology (Agroecology Coalition[16]) bringing together 54 countries is a good illustration of the progress made by agroecology, unlike other approaches.**

Through the **theme day on food systems**[17] , scheduled for 5 December

Alongside the official sessions and negotiations, COP16 will include an Action Agenda, which will highlight voluntary commitments and actions on land, resilience and people during the thematic days. The announcement of the theme day on food systems sets out the following objectives:

- Highlighting sustainable farming practices that produce resilient crops and healthy soils while protecting ecosystems and boosting food security.
- Highlighting the role of private sector and farmer involvement in transforming food systems.
- Advocating the reduction of social and gender inequalities within vulnerable communities in agri-food systems.

The detailed content of this day was not specified at the time of writing. It should take the form of a series of parallel events, conferences and round tables, in which CSOs will have to ensure that they are represented and have the opportunity to speak.

⇨ **It will be necessary to be vigilant against the temptation of techno-solutionism and innovation at any price, which could be promoted by certain players as answers to the challenges of food systems.**

During the 16th session of the Committee on Science and Technology (CST)[18] during the session devoted to **examining the recommendations of the Science-Policy Interface (SPI)**, scheduled for 3 December

The SPI's work has helped to enrich the panorama of approaches and solutions to be promoted to ensure greater sustainability of agricultural and food production systems.

Between 2022 and 2024, the SPI worked on the definition and conceptual framing of sustainable land use systems (SLUS)[19], resulting in a report that will be discussed at the CST16.
SLUS is defined as: "a dynamic mosaic of integrated land uses within a landscape that balances the many, sometimes competing, demands on land to support environmental sustainability, social justice and economic viability, particularly for those who live in or depend on the landscape for their livelihoods".
The SPI report states that "successful planning and implementation of SLUS requires two fundamental approaches: social-ecological systems and participatory governance. The social-ecological systems approach applies systems thinking to landscape management, for example by employing the principles and practices of agroecology, the circular bioeconomy and resilient value chains".

[16] https://agroecology-coalition.org
[17] Agri-food System Day
[18] CST16 agenda ICCD/COP(16)/CST/1
[19] SPI Report on Sustainable Land Use Systems ICCD/COP(16)/CST/2

The SPI also worked on the analysis of the evolution of aridity trends and future projections[20], which also gave rise to a report for discussion at the CST16. This report shows that drylands have expanded over recent decades, accounting for 40.6% of the Earth's surface (a gain of around 3% since the period 1961-1990). The SPI's work has highlighted the impacts of aridity, particularly on agricultural production, and explores future adaptation options aimed at reducing the vulnerability of ecosystems and populations:

Pastoralism: essential to ensure subsistence when aridity compromises the viability of crop production.

The development of highly productive crop varieties that are resistant to heat and save water.

Mixed farming and agroecology: recommended as a means of enriching biodiversity and improving resilience.

Crop diversification - growing sorghum rather than maize, for example - and **the application of agroecology principles** can improve food production, nutrition and soil fertility in arid conditions.

Sustainable irrigation methods, such as drip irrigation, are essential ways of diversifying crop production.

Finally, the SPI stresses that "adopting policies that favour traditional practices can be a way of helping people to better cope with the effects of climate variability and aridification".

The recommendations resulting from the SPI's work are included in the draft decisions of the CST[21]. Among these draft decisions, the following can contribute to the transformation of agricultural and food systems towards greater sustainability.

Draft decisions encouraging the adoption and implementation of systemic and inclusive policies and strategies:

- Integrate sustainable land use systems into measures to achieve the LDN to focus efforts on transformative projects that improve land productivity and preserve the equity of livelihoods while sustainably guaranteeing the provision of ecosystem services and the well-being of populations.
- Institutionalise sustainable land use and integrate collective planning into national and local systems
- Relying on a sound knowledge of land types, their potential and socio-ecological dynamics at regional level
- Establish participatory governance in the planning, implementation and monitoring of SLUS to improve security of access to land, promote social and environmental justice, and ensure the participation of all legitimate land rights holders and land users.
- Strengthen multi-sectoral coordination at all levels to promote synergies and harmonisation of policies relating to agriculture, the environment, economic issues and development.
- Identify and support local leaders who will perpetuate sustainable land use systems by adapting them to changing circumstances
- Adopting integrated approaches to the landscape to limit trade-offs between different ecosystem services and biodiversity, and between socio-economic objectives, particularly between mitigating climate change and adapting to its effects.

Draft decisions encouraging the adoption of sustainable practices:

- Create and implement comprehensive and integrative methods and technologies for sustainable land and water management to combat desertification and land degradation, thereby increasing resilience to drought and aridity.
- Redouble efforts to promote sustainable land management, in particular of agricultural land, and to support measures to mitigate and adapt to the effects of climate change, with an emphasis on agroecology and other approaches compatible with sustainable land management and the imperative of neutrality with regard to land degradation.

[20] SPI report on changing aridity trends and future projections ICCD/COP(16)/CST/3
[21] Draft CST16 decisions ICCD/COP(16)/CST/10

Draft decision to stop harmful practices:

- Redirect their subsidies and other funding mechanisms, including private sector investments, towards initiatives that better encourage sustainable land management with a view to mitigating and adapting to the effects of climate change

⇨ **These draft decisions, which are addressed to the Parties, can be supported and supplemented by CSOs in their collective statements (declarations) during the dedicated session of the STC.**

During the 22th Session of the Review Committee on the Implementation of the UNCCD (CRIC)[22] , at the session devoted to the **mid-term review of the UNCCD strategy 2018-2030**

From 2022 to 2024, an intergovernmental working group oversaw the mid-term review of the UNCCD's 2018-2030 strategy. This working group drew up a report[23] incorporating recommendations included in the draft decisions of the CRIC22[24] . The draft decision on stepping up efforts to achieve UNCCD strategic objective 1 - Improving the condition of affected ecosystems, combating desertification and land degradation, promoting sustainable land management and enhancing land degradation neutrality - can contribute to improving agricultural and food systems:

- Call for immediate action to halt the worsening of land degradation and the deterioration in the living conditions of affected populations
- Urges the parties to halt the conversion of natural areas and to halt, or at least significantly reduce, the artificialisation of land and the sealing of soil so that, in future, the current rapid expansion of artificial surfaces does not take place at the expense of land covered by natural vegetation and fertile soil.
- Urges the Parties to consider, where appropriate, i) implementing agroecological and sustainable land management approaches to achieve the LDN targets; ii) with regard to agroecology, to draw on the principles and elements defined by the FAO, in order to guide the transition towards sustainable food and farming systems

⇨ **These draft decisions, which are addressed to the Parties, can be supported and supplemented by CSOs in their collective statements (declarations) during the dedicated CRIC session.**

At COP16[25] , during the sessions devoted to:

- **Implementation of the UNCCD's 2018-2030 strategy** scheduled for 6 December
- **Follow-up to the policy framework on migration** scheduled for 4 December

Some of the texts of the draft decisions relating to these two sessions are also relevant to the sustainability of agricultural and food systems.

Draft decision to strengthen the implementation of the Convention and the strategic framework of the UNCCD (2018-2030):

Requests the Secretariat and the Global Mechanism to continue to develop approaches and practices with high potential for combined environmental and socio-economic gains, such as nature-based solutions, payment for ecosystem services, agroecology and regenerative agriculture, and to continue to promote these approaches and practices, ensuring that they are consistent with and take into account the principles of sustainable land management and SLM.

[22] CRIC22 Agenda ICCD/CRIC(22)/1

[23] Midterm evaluation of the 2018–2030 Strategic Framework of the UNCCD. Report by the Intergovernmental Working Group ICCD/COP(16)/2

[24] Draft decisions of the CRIC22 ICCD/CRIC(22)/8

[25] Agenda for COP16 ICCD/COP(16)/1/Rev.1

Draft decisions relating to the positive role that measures taken under the Convention can play in combating desertification, land degradation and drought as factors of migration:

Urges the Parties to:

- Promote sustainable territorial development, including multi-level governance and planning mechanisms, as appropriate, to strengthen urban-rural linkages, combat desertification, land degradation and drought, including sand and dust storms, and create social and economic opportunities that reduce forced migration and displacement and increase rural resilience and stable livelihoods
- Reviewing development policies, including integrated land-use planning, land tenure, agricultural practices, water management, and sustainable and resilient infrastructure, with a view to promoting the preservation and sustainable use of ecosystems and land restoration, while respecting social and environmental standards.

Requests the secretariat to:

- Continue to strengthen cooperation with other UN agencies and programmes, regional and international organisations and other stakeholders to share information to promote a better understanding of the links between urban and rural areas, including the dissemination of information on good practices identified at local and sub-national levels, such as green and blue infrastructure, integrated water and forest management, renewable energy programmes and **sustainable agri-food supply chains.**

⇨ **These draft decisions, which are addressed to the Parties, can be supported and supplemented by CSOs in their collective statements (declaration) during the dedicated COP session.**

b) Taking agroecology into account at the UNCCD

The principles of agroecology, as defined by the FAO[26], offer an interesting framework for guiding the transition of agricultural and food systems. They provide an integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of food and farming systems.
Agroecology seeks to optimise the interactions between plants, animals, humans and the environment, while considering the social aspects that need to be considered for a sustainable and equitable food system.

➔ **COP16 could mark a turning point for the consideration of agroecology, as it is mentioned more than 30 times in the preparatory documents for the COP.**

Agroecology is generally mentioned as an approach or set of practices, among other practices to be promoted under the UNCCD. However, the SPI reports and the report of the working group on the mid-term review of the 2018-2030 strategy refer to the principles of agroecology defined by the FAO.
Finally, several of the preparatory documents for COP16 recognise agroecology as an option to be promoted in order to achieve land degradation neutrality.

c) CSO advocacy for agroecology

Within the UNCCD, civil society considers that making an agroecological transition is a means of establishing agricultural and food systems that are resilient in the face of drought.
In 2022, at COP15 in Abidjan, and again in 2023 at CRIC21 in Samarkand, civil society organisations made a strong case for agroecology. They called for agroecological practices to be considered in the implementation of the Convention, in their statements during the plenary sessions, and with an open dialogue session at COP15 focusing on the theme of agroecology.

[26] FAO, 10 elements of agroecology

The preparation of this plea was orchestrated as part of the Désertif'actions 2022 initiative[27], coordinated by CARI. The Désertif'actions Summit, organised after COP15 in October 2022 in Montpellier (France), provided an opportunity to develop the arguments for agroecology, which were shared with the UNCCD secretariat and with representatives of the Parties following the Summit.
This dynamic is reflected in the note from the COP16 preparatory secretariat on CSO participation in and contribution to meetings and other activities related to the UNCCD[28]:

"The contributors to Désertif'actions concluded that agroecology is a method of agricultural production based on the sustainable use of ecosystem services that contributes both to achieving high productivity and to amplifying the natural functioning of agroecosystems in a given area. The analysis of the technical effects of agroecological practices adopted by civil society organisations on their territories, which was carried out as part of Désertif'actions, demonstrated the value of agroecology in limiting the factors of degradation and contributing to the achievement of the LDN objectives, given the need to avoid and limit land degradation and to restore degraded land. In this respect, civil society organisations recommended that countries include agroecology among the means available to them to achieve their neutrality objectives and use it as a source of inspiration for the transformation projects being developed. They also recommended that the COP recognise that making an agroecological transition is a means of establishing agricultural and food systems that are resilient in the face of drought".

⇨ **It is essential for CSOs to continue this advocacy, by integrating elements of their positions on agroecology into the collective statements made at the sessions mentioned above.**

Documents prepared as part of Désertif'actions 2022 and following this event can be used to support these statements:

- Position paper on agroecology and land degradation neutrality (2022)
- Position paper on agroecology as a drought adaptation strategy (2022)
- Drought and Agroecology Briefing Note (2023)
- Summary of the recognition of agroecology in the Rio Conventions (2024)

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CARI coordinates civil society networks:

[27] Désert'actions https://desertif-actions.org/en/homepage/
[28] CSO participation in and contribution to meetings and other activities related to the UNCCD - Note by the secretariat ICCD/COP(16)/12