Agroecology, a boon for achieving the objectives of land degradation neutrality

According to the United Nations Convention to Combat Desertification (UNCCD), land degradation neutrality (LDN) is “a state whereby the amount and quality of land resources necessary to support ecosystem functions and services to enhance food security remain stable, or increase, within specified temporal and spatial scales and ecosystems”. In other words, while it is not possible to achieve a situation where land degradation is completely halted, a neutral situation combining a reduction in the rate of land degradation and the restoration of degraded land should be the way forward. The implementation of NDT through sustainable land management has multiple objectives. It must contribute to climate change mitigation and adaptation (storage of organic carbon in soils), to biodiversity protection and to ensuring food and nutritional security for populations through the strengthening of responsible land governance. Thus the NDT consolidates the synergies between the three Rio conventions and contributes significantly to the achievement of the Sustainable Development Goals.

Land degradation neutrality: ambitious targets for the end of 2030

At the Rio+20 Summit in 2012, in their declaration “The future we want”, the member countries of the United Nations made a global commitment to strive for a land degradation neutral world. Three years later, this commitment was translated into Sustainable Development Goal 15 - target 15.3 of the 2030 Agenda.

SDG 15 - Target 15.3: By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation neutral world.

As part of its mandate, the UNCCD is designated as the referent for this objective and is involved in the implementation of concrete actions, whether it be in supporting the setting up of a specific fund (LDN Fund - Mirova), or in helping countries to formulate voluntary national targets and action plans to achieve neutrality (to date 127 countries and 450 million hectares are targeted). This is based on the "avoid, reduce and restore" triptych as recommended in 2016 by the Science Policy Interface1. Several countries are currently developing transformative projects, with 14 concept notes and 6 regional projects under construction. Despite these efforts, with less than ten years to go before the 2030 deadline, it seems unlikely that the targets set will be met. Once again, civil society wishes to sound the alarm and to insist on two major aspects to be taken into consideration by the UNCCD and by the States.

1 See the UNCCD website for the summary (in English and French) at: http://www2.unccd.int/publications/land-balance)
Investment is needed to avoid and reduce land degradation as well as to restore land

In 2016, SPI emphasized the appropriateness of the "avoid, reduce then restore" hierarchy for NDT planning. It is clear that the way in which the UNCCD and the states have undertaken the process of defining their national neutrality targets, in particular by identifying degradation "hot-spots" during their assessments, has led to a major bias in the responses thus proposed for achieving the objectives: the restoration of these specific areas, which are already very heavily degraded, is appears as the only valid option. But what about the less degraded areas that need to be preserved, the more advanced areas in the process of degradation and for which the farmers still present need support in order to halt the degradation process that has begun? At this stage, these areas are systematically excluded from the priorities. Consequently, the principles of avoiding and reducing land degradation are most of the time missing from the proposed strategies. There are two major concerns:

- There is a great risk of falling into an offsetting mechanism, by restoring degraded land to balance the scales and achieve neutrality, but letting land degrade elsewhere. Beyond the very principle of ecological compensation, which is not acceptable as such, science shows us that losses of degraded natural capital are never recovered in the same way and are therefore irremediable. **How can we consent, in good conscience, to this massive erosion of the natural capital of our planet?**

  ⇔  *It is imperative that states consider the avoidance and reduction of land degradation with the same urgency and priority as land restoration in the actions they propose to achieve their neutrality targets.*

- The corrective actions to be carried out in the territories, whatever the scale of intervention, must consider the peasant populations of the territories concerned as the primary beneficiaries. They are the ones who feed the territories, where they are the only ones able to act effectively. They are the wealth of these rural areas, and they see their productive resources deteriorating day after day. It is essential that the actions dedicated to achieving the objectives of neutrality accompany them so that they are part of their future and that of the planet, avoiding and reducing land degradation, and restoring it when necessary. **How is it possible to imagine that costly commercial land restoration projects, implemented by external operators and jeopardizing land stability, could be sufficient to achieve the objectives of neutrality, but also the other objectives of sustainable development?**

  ⇔  *States must absolutely act for the primary benefit of their populations by relying on local development operators in the service of the territories, helping to make them the main players in achieving the neutrality targets.*
Agroecology for land degradation neutrality

Numerous scientific projects tend to demonstrate the benefits of agroecology on the ground and the relevance of an agroecology-based transition for the achievement of many of the SDGs. The objective of NDT is no exception. As a reminder, one of the major challenges of the NDT is to limit or even stop the processes of degradation of agricultural land, and to preserve unaffected natural areas. In this respect, we can find several arguments of relevance in the principles of agroecology. These elements have been empirically tested for decades by actors in the field, but have also been validated in recent years by research teams working on the transformation of agrarian systems. First of all, to stop the degradation of agricultural land and preserve or restore its productive potential:

⇒ Agroecological practices are effective in preserving and restoring agricultural land by limiting degradation factors (preserve) and promoting ecological processes at work (restore).

An inventory of actions and initiatives carried out by development actors (NGOs, researchers, institutions) in more than 30 countries\(^2\) allows us to highlight 5 technical advantages to the deployment of agroecological practices:

- They improve soil fertility by enriching it with organic matter (manure, compost, RCW, green manure, alluvium, etc.)
- They increase biodiversity (soil fauna, adapted local varieties, spontaneous varietal diversity, pollinating insects, etc.) and thus the resilience of ecosystems
- They preserve water resources by maintaining a microclimate and soil humidity (tiered cultivation, techniques to fight against desertification, etc.), and by protecting the water table from pollution (reduction of fertilizers, soil structure, etc.)
- They protect against strong winds, drought and erosion through the installation of hedges, planting, permanent soil cover, etc.
- Finally, they help to prevent the change of land use, while promoting the development of ancillary services such as the supply of firewood, aromatic and medicinal plants, and by allowing a quality living environment...

The non-exhaustive list of these direct technical effects of agroecological practices clearly shows the relevance of agroecology in limiting the factors of degradation and favouring ecological processes: to put it simply, contributing to the achievement of the objectives of the NDT, both through the avoidance and reduction axes and through the restoration axis. Why then not consider the principles of agroecology and the support of agroecological transitions in the implementation of actions promoted by the States?

⇒ It is essential that governments include agroecology as a relevant model for achieving their neutrality targets and use it as a basis for the transformative projects under development.

Beyond these strict technical considerations, the principles of agroecology are also highly relevant to the preservation of natural areas not used by humans. Indeed, in view of the increase in population and therefore in food needs, and the degradation of the productive potential of some agricultural lands, the challenge of producing enough to feed the planet is strong. The prospect of accelerating the phenomenon of

\(^2\) See the Désertif’actions 2022 dynamic on the dedicated website: www.desertif-actions.org
land use change is therefore more than ever to be feared. In this respect, agroecology provides answers through its capacity for intensification on small areas.

\[\text{Agroecological intensification is a mode of agricultural production based on the sustainable use of ecosystem services. It allows both high productivity and the enhancement of the natural functionalities of agroecosystems on a given area.}\]

The consultation, which brought together the views of more than 700 contributors\(^3\), showed the relevance of agroecology in limiting the expansion of agricultural land to the detriment of natural areas.

- On a given area, agro-ecological intensification allows to produce more by improving yields over time, and by improving the quality of the products (and by limiting the negative effects on the environment);
- As a result, it improves the food and nutritional security of the population and their economic income (in Connexion with local markets);
- Ultimately, it limits the need to expand agricultural land by taking better advantage of the productive potential of a given area, and maintains a stable food supply.

Obviously, this virtuous equation cannot be achieved without adequate development conditions, whether in terms of access to land, water and common spaces, or in terms of accompanying public policies. How can we imagine harmonious development in rural areas thanks to the agro ecological transition without local and national policies supporting this transition?

\[\text{It is essential for governments to facilitate inter-sectoral dialogue (agriculture, livestock, environment and decentralisation), to promote the coherence of their policies, and to support farmers in managing the risks associated with the transition so that they can achieve financial equilibrium after 2-3 years.}\]

Agroecology is no longer an option: it offers a real perspective for the evolution of agricultural territories, enabling the achievement of the sustainable development goals, including Goal 15 (target 15.3) on land degradation neutrality. It allows degraded areas to be considered not only in terms of the three indicators proposed by the UNCCD (land use and vegetation cover, land productivity and soil carbon content), but also in terms of the potential for life that they offer to their populations. Agroecology, whether through its founding principles or through its application in the field, must be a source of inspiration for public policies, at national and international levels, by considering all the services it can provide for the environment, mankind and the planet.

**The targets for 2030 are:**

**Agroecology must play its part, let’s give it the means!**

\(^3\) See the Désert'actions 2022 dynamic on its dedicated website: www.desertif-actions.org