



14th Global Forum for Food and Agriculture (GFFA) Sustainable Land Use: Food Security Starts with the Soil

Background paper

Soil is one of the **existentially vital resources** for humans, animals and plants. More than 90 percent of global food production depends on soil. It provides habitats for soil organisms, purifies and stores water, filters pollutants and is the most important terrestrial carbon sink on earth.

Soils are, however, under pressure around the globe: for example, urbanisation and expanding industries and infrastructure are resulting in more and more soil sealing. The consequences of climate change include the flooding of coastal areas and growing desertification. The improper use of soil reduces its productive capacity. In addition to this, the growing global population has a rising demand for food, feed and renewable resources. These developments not only lead to increased competition among farmers for scarce land; they also threaten valuable natural biotopes.

Therefore the United Nations' goal to achieve a **world without hunger** by 2030 is directly linked to protecting the soil. Only if we utilise land resources sustainably and preserve existing agricultural land will we be able to feed the growing global population, keep global warming below 2° Celsius and reduce the loss of biodiversity.

To this end, the international community needs to urgently develop and implement practicable solutions. The **2022 GFFA** wants to provide impetus and promote international exchange by focussing on the following **four questions**:

1. How can we improve soil protection?

Preserving soil and its ecosystem services is imperative for food security, climate stewardship and biodiversity conservation. For example, a handful of soil contains more organisms than people living on this planet, for two thirds of all species live below the earth's surface. In addition, intact soil contributes to climate change mitigation by storing carbon. Therefore the debate at the GFFA will focus on how ecosystems can preserve soil and stop soil degradation, on which farming practices have a positive impact on soil fertility and quality and on how these practices can be applied on a broader scale.

2. How can we restore degraded soil?

The Food and Agriculture Organisation of the United Nations (FAO) estimates that about 33 percent of all soil worldwide is already degraded. This is alarming, because it takes about 2,000 years for ten centimetres of soil to develop. It is estimated that in the next 25 years, land degradation could result in a 30 percent increase in food prices. There are multiple reasons for the loss of fertile land: The biggest problem is soil erosion by water and wind, aggravated by salinisation, compaction, acidification, sealing and chemical pollution. By adopting the Sustainable Development Goals, the international community has also set itself the goal of land degradation neutrality so that soil loss and soil restoration will in future be in balance. The activities related to this topic will discuss the possibilities of implementation, in particular with respect to enhancing soil remediation and the unsealing of land.

3. How can we make the use of finite land resources more sustainable?

The pressure to exploit land worldwide is already high and will continue to increase: on the one hand, the loss of agricultural land as a consequence of sealing and degradation results in a more intensive utilisation of fertile cropland and an increased use of nature areas. More land is needed to meet the growing demand for food. At the same time, food production is competing with the growing production of bioresources and with the demand for important ecosystem services. The rising shortages are clearly shown in the tough competition for agricultural land. On the other hand, this development is further reinforced by resource-intensive consumption, in particular that of developed countries and emerging economies, by food losses, food waste and by the impacts of climate change. The discussions on this question will help to explore ways to reduce the pressure to exploit agricultural land worldwide and to enable sustainable and soil-preserving land management in the face of the increasing demand for food.

4. How can farmers worldwide get fair access to land?

Food security can only be achieved if farmers are put in a position where they can farm the land sustainably. Therefore, long-term and secure access to agricultural land through ownership and tenure, and rights to use land, are of utmost importance. Almost a billion people across the world consider it probable or highly probable that they will be driven from their land or property in the next five years. Therefore the implementation of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests (VGGT), which were adopted by the UN Committee on World Food Security in 2012, continue to be a key challenge which will be discussed at the GFFA, because the VGGT represent the first instrument under international law to offer states a framework of reference for responsible soil policies.