



<u>Forum:</u>	Commission on Sustainable Development
<u>Question of:</u>	Encouraging sustainable farming in relation to climate change in order to protect ecosystems
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I. Description of the issue:

The aim of sustainable agriculture is to save resources and protect the environment. However, equating “sustainable” with “ecological” falls short of the mark. Conventional farms can also contribute to more sustainability in agriculture.

Sustainability is the buzzword and the challenge of our time. Numerous farms have already taken the path of consistent sustainability. Sustainable does not necessarily have to mean "organic" or "eco". The focus is on resource-saving management. Around 811 million people worldwide are chronically malnourished, and about two billion people do not consume enough essential nutrients. To feed the steadily growing world population, at least 50 percent more food must be produced by 2050. The world's more than 2 billion smallholder farmers play an essential role in this, as they produce 80 percent of the food globally.

Ensuring adequate nutrition worldwide is increasingly proving to be a challenge. On the one hand, the population continues to grow while, on the other hand, natural resources are limited. Climate change and the decline in biological diversity are making it more of a challenge to ensure adequate, balanced nutrition and combat poverty. Adapted forms of agriculture are becoming increasingly important, also with a view to achieving the goals of the 2030 Agenda for Sustainable Development.

What we now need to do is make agricultural systems more robust while at the same time increasing productivity by orienting agriculture more towards principles of agricultural ecology.

Overall, people have become more aware in recent years of the great importance of ecologically, socially, and economically sustainable food production. However, international



cooperation actors are not yet sufficiently incorporating the latest knowledge and strategies in this area into national and international political processes and programs.

II. Definition of Key terms:

Sustainable Farming: Sustainable farming refers to agricultural practices that aim to meet present food and resource needs without compromising the ability of future generations to meet their own needs. It involves utilizing methods that are environmentally friendly, socially responsible, and economically viable. Sustainable farming focuses on preserving natural resources, minimizing environmental impact, promoting biodiversity, and ensuring the long-term health of ecosystems.

Climate Change: Climate change refers to long-term alterations in temperature, precipitation patterns, wind patterns, and other aspects of the Earth's climate system. It is primarily caused by human activities, particularly the emission of greenhouse gases, such as carbon dioxide, into the atmosphere. Climate change poses significant challenges to agriculture and ecosystems, including shifting weather patterns, increased frequency of extreme weather events, and changes in water availability, which can impact food production and ecosystem health.

Ecosystems: Ecosystems are dynamic and interconnected communities of living organisms, including plants, animals, microorganisms, and their physical environment. They encompass various ecological interactions and processes that contribute to the functioning and stability of natural systems. Ecosystems provide vital services, such as nutrient cycling, pollination, water purification, and climate regulation, which are essential for sustaining life on Earth.

III. Background information:

The aim of sustainable arable farming is to preserve the natural fertility of the soil. In particular, the leaching of the soil should be avoided, which, in the opinion of sustainable farmers, loses its usability due to the above-mentioned aids as well as the accumulation of pollutants and degradation products (e.g., nitrate), which in the second step also have a negative impact on the quality of the groundwater.



Sustainability means thinking about tomorrow today. In essence, it is about using resources sparingly so that they are still available to future generations. Emissions that are harmful to the environment should only be emitted to the extent that the environment can neutralize them with the help of its self-cleaning power. Sustainable agriculture produces high-quality food while protecting resources and the environment.

Sustainable agriculture relies on avoiding a dependency dynamic between intensive fertilization and the use of pesticides and herbicides. Instead, sustainable agriculture promotes growth processes with natural methods and resources. This includes compliance with crop rotation.

Advocates of sustainable agriculture see this cyclic use of the land as the only way to preserve the natural balance. The regulations of EU organic agriculture are not considered sufficient for sustainable agriculture, since agents and substances are still permitted that lead to an imbalance in the long term and thus limit sustainability.

The “Campo Laguna Blanca” project of the Tompkins Conservation, initiated by the married couple Kris and Doug Tompkins (founders of “The North Face”) as well as Dolores Peréa-Muñoz and Eduardo Chorén, is an example of the combination of large-scale organic farming and the use of modern agricultural technology in Argentina. On the approximately 2,800 hectares of land in the Entre Ríos province, which was acquired in 2007, the switch from monoculture to an ecological mixed culture is to be demonstrated. Wild zones were set up when the areas were restructured to regain the natural diversity of birds, insects, and other animals on the site.

IV. Possible Solutions:

The project provides content-related advice for the German Federal Ministry for Economic Cooperation and Development (BMZ) regarding formulating policies and developing strategies around sustainable agriculture. Alongside BMZ, they include regional and national partners, regional and global international cooperation projects, and the professional public. It is aimed at international cooperation actors who promote sustainable agriculture at a policy level or actively develop and implement programs to strengthen this area.

Sustainable agriculture is about:

- Maintaining and improving soil productivity



- Minimizing the harmful effects on climate, soil, water, air, biodiversity, and human health
- Use as few non-renewable and petroleum-based resources as possible, and replace them with renewable ones.
- Cooperation with the local population
- A qualitative and quantitative satisfaction of the basic human need for food, also for future generations
- A reliable occupation with a satisfactory income and good living and working conditions for all people working in agriculture
- Strengthening the agricultural sector to be less vulnerable to natural (e.g., climatic) and economic (e.g., high price volatility) risks.
- The promotion of institutions that promote the active participation of all actors involved.

The project supports BMZ in positioning and agenda-setting around agriculture. In addition to providing policy and strategy advice, the project develops methods and concepts and promotes networking and knowledge management in the following priority areas:

1. Crop production and animal husbandry: promoting sustainable agricultural production

Integrated, site-appropriate, and resource-efficient farm systems that also promote climate-resilient and low-emission agricultural development.

2. Agri-food and nutrition sector: strengthening agricultural value chains

Promotion of investments, marketing for agricultural products, and innovative business models, as well as cooperation with the economy.

3. Disseminating innovative agricultural policy and agricultural trade policy

Free and fair trade in agricultural products, continental and national agricultural policy reforms and trade agreements, and the impact of EU agricultural policy on developing countries.

The project supports international cooperation actors and their partner institutions through various skill-building measures (such as training courses and exchange formats). In addition, it develops innovative studies and manuals, tests agricultural methods, and incorporates these methods into knowledge platforms and networks.



V. How to prepare as a delegate:

To have fruitful debates, all delegates need to be well-prepared and know their topics. As this research report only gives a short overview of the topic, please do further research on the issue of

As a delegate, you should know how or if your country is involved in this issue. Is your country willing to prevent the misuse or is it not that important? Did your country ever do something to tackle this problem, if yes what? If not is there any planning on tackling it? You have to research all of the important information about your country so you can answer the questions delegations will maybe ask you about your country but also to have a better overview over this issue.

For that you could use the research report or any other useful link.

UN resolution

<https://unric.org/en/international-innovation-award-for-sustainable-food-and-agriculture/>

Useful links:

<https://www.sciencedirect.com/science/article/pii/S1877343513001255>

https://agriculture.ec.europa.eu/sustainability/environmental-sustainability/climate-change_en

Sources:

<https://www.giz.de/en/worldwide/99186.html>

https://agriculture.ec.europa.eu/sustainability/environmental-sustainability/climate-change_en

<https://www.nature.com/scitable/knowledge/library/sustainable-agriculture-23562787/>

<https://www.nordforsk.org/programs/sustainable-agriculture-and-climate-change>

https://en.wikipedia.org/wiki/Sustainable_agriculture