Virtual Event

Bioenergy for Sustainable Development

8 June 2021
10:00-11:30 AM, New York time

Draft Concept Note

Background

Sustainable bioenergy can contribute to climate change objectives helping to reduce the consumption of fossil fuels. It can also contribute to agriculture and rural development and energy security. It is important, however, that bioenergy development is based on sustainable water management practices that take into account other uses of water as well as food security. Integrated approaches to bioenergy include innovative systems and strategies that maximize water use efficiency. Furthermore, a variety of examples exist of bioenergy systems in different world regions that contribute positively to the state of water.

Sustainable production and use of bioenergy represent considerable opportunities that support the social, economic and environmental dimensions of sustainable development. Nevertheless, there are significant barriers to scaling up and replicating bioenergy good practices. The creation of an enabling environment for sustainable bioenergy production and the improvement of the management of water resources are necessary conditions for the development of bioenergy programmes in many countries that have great potential for biofuel use.

Bioenergy is a major type of renewable energy that could support the SDGs in the context of climate change and energy. Global assessments find that bioenergy accounts for three-quarters of all renewable energy use today and half of the most cost-effective options for doubling renewable energy use by 2030. Bioenergy can be used for transportation, heating and generation of electricity.

Bioenergy can play a role in most economic sectors. In the power sector, bioenergy can provide flexibility to balance intermittent and seasonal wind and solar resources. In industry, biomass can efficiently supply high-temperature process heat, in combination with a variety of valuable bio-based chemicals and materials. In the building sector, biomass provides the feedstock for highly efficient district heating systems, furnaces and cook stoves. In transport, liquid and gaseous biofuels can help reducing fossil fuel use. Biofuels also represent an alternative to fossil fuels for aviation, marine shipping and heavy freight transport.

A strategy for adaptation to water scarcity can be based on the use biomass production for energy as a tool for increasing the spatial and temporal accessibility of water resources and at the same time improving the quality of freshwater flows. Basin level planning could include biomass production as a land-use option with the potential for combining, for example, erosion control and flood prevention with income generation from carbon sink generation and biomass sales for energy. Intelligently designed bioenergy systems can significantly offset greenhouse gas emissions associated with fossil fuel-based energy systems, and at the same time lead to additional environmental benefits. The environmental and socio-economic benefits from a large-scale bioenergy programme could be substantial.

Ensuring universal access to modern and sustainable energy, water and sanitation services while reducing related environmental impacts lies at the heart of sustainable development. The Division for Sustainable Development Goals of UN DESA is conducting a number of initiatives and events designed to support the integrated implementation of SDG 6 (water) and SDG 7 (energy). One of these initiatives is the Global Sustainable Water and Energy Solutions Network founded with Itaipu Binacional in 2018 (https://www.un.org/en/waterenergynetwork). This capacity development event, organized by this Network in cooperation with its member ASAZGUA, will bring together multi-stakeholders to discuss and showcase existing initiatives and disseminate information on bioenergy.

Objective

The objective of this capacity building event is to provide a virtual space for the exchange and dissemination of knowledge and experiences related to bioenergy. The expected outcome is audiences with knowledge about sustainable bioenergy systems. The event will allow information exchange about efficient and effective uses of bioenergy resources for a more sustainable world. Participants will also have the opportunity to learn and discuss the synergies that can be realized when integrated approaches on bioenergy are implemented.

PARTICIPANTS

Participants will include representatives from Member States and from public, private, and non-profit organizations, as well as international organizations, civil society and practitioners involved and interested in the research, development, management and implementation of integrated water and energy systems and programmes in general, and in particular of bioenergy systems.

TIME

This event will be held on 8 June 2021 as a virtual meeting from 10:00 to 11:30am, New York Time.