

Forum: *SDC (Sustainable Development Committee)*

Issue: The question of Ensuring access to affordable, reliable and modern energy services in order to reduce the use of fossil fuels.

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Introduction

The world is in a constant process of growth. As the world advances and makes technological improvements, the number of problems it is confronted with has increased dramatically. Climate change is perhaps one of the most eminent problems that future generations will have to face and is therefore of utmost importance. Solving the issue of climate change involves tackling several small issues.

However, the universal access to affordable, reliable and modern energy services is one of the 17 dedicated goals of the UN (i.e. goal 7). The UN aims to substantially increase the usage of renewable energy and aspires to double the global rate of improvement in energy efficiency, by 2030. An expansion of infrastructure and upgrade of technology for supplying modern and sustainable energy services in the entirety of the world, in particular in LEDCs, is one of the means to ensure a sustainable future.

In spite of that, 41% of all electricity is produced from coal, according to the World Coal Association. When looking at renewable electricity resources, one normally thinks of four distinct sources: solar, wind, hydro and biomass. Even though they are renewable, they are not necessarily sustainable.

Definition of Key Terms

Modern Energy

Energy that is based on petroleum, electricity or other energy forms that have commercialized market channels, a higher heating or energy content value than traditional biomass.

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Fossil fuels

Coal, crude oil, and natural gas. Fossil fuels have a high carbon content and the supplies are limited.

Sustainable Development (SD)

Described by Bruntland Commission Report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

It has four categories: society, environment, culture and economy which are connected.

The 17 Sustainable Development Goals (SDGs)

Also known as the Global Goals, are a call to action to end poverty and protect the planet.

They have existed since 2015 and by 2030 they should ensure peace and prosperity for everyone. SDGs are designed to end poverty, hunger, AIDS, and discrimination against women and girls. Goal 7: Affordable and Clean Energy.

UNDP

United Nations lead agency on international development with the purpose of reducing poverty but simultaneously achieving sustainable economic growth.

LEDCs

Less economic developed countries (LEDCs) are low-income countries confronting severe structural impediments to sustainable development. They are highly vulnerable to economic and environmental shocks and have low levels of human assets.

Greenhouse gas emissions

Greenhouse gas emissions are mostly carbon dioxide, methane and nitrous oxide.

Background Information

The development of modern energy is at the forefront of the whole climate crisis. Energy is critical and people who lack access to energy lose out on the opportunity of sustainable progress in this world of ours. According to the UN 39% of the world’s population does not have any access to modern and clean fuel for the purpose of householding. Furthermore, one billion people worldwide live without any access to energy. Ever since the industrial revolution, humanity has made use of fossil fuels and oils instead of the sustainable options which, on a long-term basis, resulted in many

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problems that humanity and the earth's ecosystems nowadays have to face such as acidification, air and water pollution and climate change. For example one issue is that through the use of fossil fuels the greenhouse gas emissions rise and speed up global warming. Furthermore, the production of energy out of fossil fuels requires burning the original resources, which also releases greenhouse gas emissions into the air.

Clean and sustainable energy is also known as renewable energy. In contrast to the ending fossil fuels, renewable energy, for example energy from wind farms, are not ending. The wind is blowing and the sun is shining, not forever, but long enough (about five billion years) that we as humans can rely on it and use it for the future. Although the sunlight and wind depend on the weather, it can be used to create power which does not harm nature, or much less as the energy produced out of fossil fuels. That is because the renewable energy is just saved from wind or sunlight, but for example for oil there needs to be drilled a well, from which greenhouse gas constantly is released into the air, but after the well is no longer profitable for the companies, the wells release even more emissions.

Major Countries and Organizations Involved

Organizations

IEA - International Energy Agency, created 1973 with the oil crisis. The IEA works with governments and industry to shape a secure and sustainable energy future for all, including supporting fuels and technologies to achieve this goal. It includes a variety of programmes and initiatives, helping ensure energy security, tracking clean energy transitions, collecting data, or providing training around the world

Seforall Forum - International organization that works in partnership with the United Nations and leaders in government, the private sector, financial institutions, civil society and philanthropies to drive faster action towards the achievement of Sustainable Development Goal 7 (SDG7) – access to affordable, reliable, sustainable and modern energy for all by 2030 – in line with the Paris Agreement on climate.

United Nations Industrial Development Organization

IRENA

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National Solar Mission

Timeline of Events Relevant UN Treaties and Events

2022 - Sustainable Energy for All Forum

The landmark global gathering bringing people together to take stock of progress, showcase success and identify solutions to achieve faster, broader gains towards sustainable energy for all

2021 - High-level Dialogue

Promote the implementation of the energy-related goals and targets of the 2030 Agenda for Sustainable Development. It is the first global gathering on energy under the auspices of the General Assembly since the UN Conference on New and Renewable Sources of Energy held in Nairobi in 1981.

2016 - Paris Agreement on climate

Its goal is to limit global warming to below 2 degrees celsius. To achieve it, the countries are reducing greenhouse gas emissions. The participating countries submitted their NCDs, nationally determined contributions, to achieve the goal in 2020. Long-term low greenhouse gas emission development strategies (LT-LEDS) were also submitted in 2020. Participating are all countries which are members in the UN.

2012 - United Nations Conference on Sustainable Development in Rio

Member States decided to launch a process to develop a set of Sustainable Development Goals (SDGs), building on the Millennium Development Goals (MDGs) and converging with the post-2015 development agenda, also establishing innovative guidelines on green economy policies, and put in place a strategy for financing sustainable development.

1994 - Energy Charter Treaty (ECT)

Content: Framework for cooperation across borders in the energy industry. It's an agreement covering investment promotion and protection, trade, transit, energy efficiency and dispute resolution. The treaty was signed in Lisbon together with a "protocol on energy efficiency and related environmental aspects" (PEEREA).

Members: Afghanistan, Albania, Armenia, Austria, Azerbaijan, Belarus°, Belgium, Bosnia and

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Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, European Union and Euratom, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Japan, Jordan, Kazakhstan, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Mongolia, Montenegro, The Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, United Kingdom, Uzbekistan, Yemen

Previous Attempts to solve the Issue

The issue of producing sustainable energy is one that we all share, however, providers of energy and chemical products are the ones standing at the forefront of the issue. It is for this reason that companies like DEKRA have created certificates to attribute companies with a high environmental standard (DIN ISO 14001: 2015).

Nowadays, thirteen percent of all the population have no access to modern energy. Nevertheless, there are possibilities private households can use to improve their use of energy, regarding climate change and global warming. For example private households can install solar panels on the roof to rely on modern energy. They also can inform themselves of possibilities of buying energy produced in wind farms.

Possible Solutions

As the world attempts to transition its energy systems away from fossil fuels towards low-carbon sources of energy, we have a range of energy options: renewable energy technologies such as hydropower, wind and solar, but also nuclear power. Nuclear energy and renewable technologies typically emit very little CO₂ per unit of energy production, and are also much better than fossil fuels in limiting levels of local air pollution. But whilst some countries are investing heavily in increasing their nuclear energy supply, others are taking their plants offline. The role that nuclear energy plays in the energy system is therefore very specific to the given country.

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