



BACKGROUND

**PROMOTING ENVIRONMENTAL FRIENDLY
TECHNOLOGIES AND ENERGIES FOR
CLIMATE CONSERVATION**



GENERAL ASSEMBLY

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FOREWORD

Welcome delegates to the seventh Model United Nations Instituto Cultural Tampico. We would like to thank you for being part of the General Assembly Committee, where we will discuss topics of worldwide concern. We hope that this experience is as enriching to you as it is to us, and that it will help you develop leadership and communication skills that can be useful in your future.

One of the main problems that are going to affect our world in the following years is global warming. We believe that the implementation of green technologies and environmentally friendly energies are favorable and functional solutions for reducing and/or preventing the damages that will affect our planet. Also, this has a beneficial effect in the health and economic sectors since promoting the use of these technologies can reduce the production cost, improving life quality in every global area affected by pollution. Overall, this topic can spark conversation on the important issue that is making our future greener.

HISTORY OF THE COMMITTEE

The United Nations General Assembly is one of the six principal organs of the United Nations (UN) and the only body in which every member of the organization is represented and allowed to vote.

The first session of the assembly convened on Jan. 10, 1946, in London, with 51 countries represented. As of 2006 there were 192 members of the General Assembly. Numerous nonmembers, such as states, organizations, and other entities (e.g., the Vatican, the African Union, the International Committee of the Red Cross, and Palestine), maintain observer status, enabling them to participate in the work of the General Assembly.

The General Assembly Committee exercises deliberative, supervisory, financial, and elective functions relating to any matter within the scope of

the UN Charter. However, its primary role is to discuss issues and make recommendations, though it has no power to enforce its resolutions or compel state action.

Other functions include admitting new members; selecting members of the Economic and Social Council, the non permanent members of the Security Council, and the Trusteeship Council; supervising the activities of the other UN organs, from which the General Assembly receives reports; and participating in the election of judges to the International Court of Justice and the selection of the secretary-general.

Most work, however, is delegated to six main committees, known as (1) Disarmament and International Security, (2) Economic and Financial, (3) Social, Humanitarian, and Cultural, (4) Special Political and Decolonization, (5) Administrative and Budgetary, and (6) Legal.

The General Assembly has drawn public attention to major issues, thereby forcing member governments to develop positions on them, and it has helped to organize ad hoc bodies and conferences to deal with important global problems.

At the beginning of each regular session, the General Assembly also holds a general debate, in which all members participate and may raise any issue of international concern. The number of resolutions passed by the General Assembly each year has climbed to more than 300, and many resolutions are adopted without opposition.

INTRODUCTION

With the beginning of industrialization, a new age of opportunities began. We started to produce more and better products than at any point before in human history, we discovered electricity and harvested nature's resources to help us improve our cities and production facilities.

But as everything in life, advancement came with a cost. The rapid improvements in the fields of mass production and technical advancements took its toll on the environment as well as life on earth. More production means more energy consumption, more energy consumption means more demand for resources which in turn leads to more waste.

But it is not too late to escape the vicious circle and ensure that our technical advancements do not turn against us. Around the world renewable energy use is on the rise and these alternative energy sources could hold the key to combating climate change.

Renewable energy is generated from sources that naturally replenish themselves and never run out, the most common sources are solar, wind, hydro, geothermal and biomass. Over 80% of the total energy consumed by humans is derived from fossil fuels however, renewables are the fastest growing source of energy in the world. Renewable energy has many benefits:

First, it can combat climate change because it creates no direct greenhouse gas emissions. The only emissions that they produce are indirect, meaning those that result from manufacturing parts installation, operation, and maintenance, but even those are minimal.

Second, renewable energy can decrease pollution and therefore reduce threats to our health. Wind, solar and hydroelectric systems create no air pollution emissions. Geothermal and biomass energy systems emissions are much lower than non-renewable energy sources.

Third, renewable energy is a reliable source of power because renewable energy sources are, well, renewable, they will never run out. Once built, renewable facilities cost fairly little to operate and the fuel is often free, as a result, renewable energy prices tend to be stable over time.

While renewable energy has many advantages, it is not without downsides; it is difficult for renewable energy sources to generate power on the same large scale as fossil fuels. Building wind farms and dams can disrupt the wildlife and migration patterns and lead to ecological destruction. Both solar and wind energy are intermittent; they only generate power while the sun is shining or while the wind is blowing batteries can store excess energy for later use however, they are often costly. While renewable energy presents some challenges it also offers an environmentally friendly alternative to the greenhouse gas emissions and pollution of fossil fuels. And as advances in technology make renewable energy more accessible, affordable, and efficient an end to climate change could be within our reach.

Therefore, we need to start acting up in order to take care of the world where all nations live before it is too late and there is no time left.

CONTENT

THE PROBLEM

Climate experts project the Earth will be at least eight degrees warmer by 2100 if global emissions continue on their current path. This warming is altering the Earth's climate system, including its land, atmosphere, oceans, and ice, in far-reaching ways. Higher temperatures can worsen many different types of natural disasters, including storms, heat waves, hurricanes, floods, and droughts. The increasing number of disasters we're seeing as our warming atmosphere retains moisture poses risks to public health and safety. Prolonged drought conditions jeopardize access to clean drinking water, incentivize wildfires, and result in dust storms, and extreme heat waves. Heavier rains cause overflow in streams, rivers, and lakes, which damages life and property, contaminates drinking water, creates hazardous-material spills, and promotes mold infestation and unhealthy air. A warmer, wetter environment is also a breeding ground for food-borne and waterborne illnesses and disease-carrying insects such as mosquitoes, fleas, and ticks.

A POSSIBLE SOLUTION

A United Nations report on energy-efficiency technologies under the name "Green Technology Choices: The Environmental and Resource Implications of Low-Carbon Technologies" shows that low-carbon technologies can aid clean air, save water and cut land use. This could reduce 25 billion tonnes of greenhouse gas emissions and 17 million tonnes of particulates a year. The report compared two scenarios – one for a global temperature rise of 6 degrees Celsius and the other assuming that the global target of 2 degrees Celsius above pre-industrial levels is achieved.

Some of the key findings of this analysis included:

Under the 2-degree scenario, low-carbon energy production and energy efficiency technologies have the potential to cut about 25 billion tonnes a year of greenhouse gas emissions by 2050, which is about 34 percent lower than usual. More than 17 million tonnes per year of particulate matter and over 3 billion tonnes of emissions toxic to humans could be avoided.

Low-carbon energy technologies could save more than 200 billion cubic meters of water a year and nearly 150,000 square kilometers of land occupation by 2050.

Transformation to low-carbon energy technologies will require over 600 million tonnes of metal resources by 2050 for additional infrastructure and wiring needs.

Some efficiency technologies are known to increase the demand on the service that they provide, which is one of the main mechanisms of the so-called “rebound effect”. In order to nullify the environmental co-benefits of low-carbon technologies, however, more than 100% increase in demand of the same service is needed for most of the technology-impact category pairs. However, an increase in demand of less than 30% could eliminate their environmental benefits of efficient information and communication technology and passenger vehicles.

TAKING ACTION: COMMITTEES AND AGENDAS

The United Nations through UNEP (United Nations Environmental Program) has become the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system, and serves as an authoritative advocate for the global environment. It also promotes the effective development and transfer of environmentally sound technologies. Technology topics cut across almost all of the UN Environment's priority areas such as the Global Clean Ports Project (a pilot project in the Port of Tanjung Priok in Jakarta, Indonesia that seeks to reduce harmful emission from ports as well as installing air monitors), the Mediterranean Investment Facility (works with the development and implementation of innovative financing initiatives to enhance clean-energy small-sized technologies), the Vietnam Lightning Project (whose overall objective is to reduce greenhouse gas emissions through conversion of incandescent lamps use into energy saving lamps (ESLs) in Vietnam), amongst others.

Another agency amongst the United Nations that focuses on clean energy is UNIDO, which promotes industrial development for poverty reduction, inclusive globalization, and environmental sustainability. UNIDO ITPO Tokyo (a branch located in Japan) has a program called Sustainable Technology Promotion Platform (STePP) which is designed to share information on Japanese technologies that contribute to sustainable industrialization, in order to promote the transfer of such technologies to developing and emerging countries. Any organizations located in developing and emerging countries, such as governmental organizations, private enterprises, institutions, or NGOs, are welcome to approach the technology providers on STePP. STePP registers technologies in four large categories: Energy, Environment, Agribusiness and Human Health; this can range anywhere from renewable energy, pollution prevention and control, and adaptation to climate change, to public health and monitoring equipment.

Finally, the United Nations makes a heavy emphasis on sustainability in the 2030 agenda for Sustainable Development. One of the main goals is to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations. This is heavily emphasized in Goal 7 “Ensure access to affordable, reliable, sustainable and modern energy for all” which strives to make clean energy accessible to all countries, Goal 9 “Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation” which strives to upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending, and Goal 14 “Conserve and sustainably use the oceans, seas and marine resources for sustainable development” which will involve the usage of scientific knowledge and marine technology to improve ocean health and enhance the contribution of marine biodiversity to the development of developing countries.

Arab Republic of Egypt

Egypt's economic development hinges on the energy sector. To meet burgeoning energy demand, the government's Integrated Sustainable Energy Strategy, ISES 2035, involves stepping up the use of renewables and improving energy efficiency in the power sector. The government has set targets for renewables to make up 42% of the country's electricity mix by 2035, based on rapid solar and wind deployment.

Bolivarian Republic of Venezuela

The 2011 Development Plan for the National Electric System 2013-2019) sets the development of renewable energy resources as a medium-term (2013-2019) and long-term (2014-2033) goal. The program Sowing was initiated in 2005 through a public foundation for electric development (FUNDELEC) with the objective of providing energy and water services in remote and indigenous areas through solar PV and hybrid (PV-wind-diesel) systems.

Commonwealth of Australia

Renewable energy supplied between 14 and 96 per cent of the electricity needs of Australia's states in 2019. This extraordinary range reflects the differing natural resources of each region as well as the variations in historical commitments to support renewable energy.

Tasmania's considerable hydro resources meant that it continues to be Australia's renewable energy leader, a position it intends to keep via its

Battery of the Nation project. South Australia again got more than half of its electricity from renewable sources in 2019 and is expecting to increase this to 100 per cent by 2030.

Federal Republic of Germany

Germany's Energiewende ("energy transition") has made the country a world leader in renewable energy development. Renewable Energy Prospects: Germany examines this remarkable transition in depth, detailing progress over recent decades, highlighting best-practice policy and technology experiences, and providing a perspective on the country's options going forward.

French Republic

The French government has aggressively pursued the embrace of clean technology through the use of government subsidies. Many French corporations have also been aggressively acquiring clean technology companies in the United States and other countries. In 2012, the French government passed laws aimed at boosting the country's car industry based on clean technology. Although the demand for producing green technology energy systems has increased, these companies have struggled with having a sufficient number of skilled workers to complete these projects.

New Zealand

New Zealand has lagged behind the rest of the world when it comes to clean technology. The WWF report found New Zealand has good infrastructures when it comes to innovation, but is lacking when it comes to the financial promotion of start-up businesses.

But with ~80% of its electricity generated from renewable resources, New Zealand has an abundant supply of clean power. Drive Technologies, based in Wellington, makes high-efficiency electric motors. New Zealand also has 30 different companies working in its geothermal sector. The 2016 Electric Vehicle Program aims to double its electric cars fleet every year until 2021.

People's Republic of China's

As the largest energy consumer in the world, China must play a pivotal role in the global transition to a sustainable energy future in an increasingly carbon-constrained world. The country is already a global leader in renewable energy, with massive potential to harness a diverse range of renewable sources and technologies, both for power generation and for end-use sectors.

Republic of Kazakhstan

Oil exports play a major role in the economic development of Kazakhstan, the largest petroleum producer in Central Asia. But the country's vast plains also hold significant renewable energy potential that remains largely untouched, particularly solar and wind power. The International Energy Agency selected Kazakhstan as a key player in regional efforts to deploy low carbon technologies in Central Asia for a pilot study developed with the European Bank of Reconstruction and Development.

Republic of Kenya

UN Environment is implementing a project designed to support policymakers in Ethiopia and Kenya to develop effective, integrated policies for sustainable bioenergy with the financial support of Germany's International Climate Initiative (IKI). In Kenya, researchers are focusing on agricultural residues used by the tea industry, and charcoal produced from agroforestry resources and used by households.

Republic of South Africa

From 2014 to 2015, South Africa's investment in renewable energy rose by 329 per cent to \$4.5 billion, one of the many reasons why last year was the time that investment in renewables – excluding hydro power – was higher in developing economies than in developed countries.

Renewable energy from sources like the wind and sun were once seen by some critics as a luxury affordable only in richer parts of the world. But South Africa and other developing economies are proving these critics wrong, according to a UNEP report released today called Global Trends in Renewable Energy Investment 2016.

Russian Federation

The Russian Federation has set out to increase and diversify its use of renewables, particularly for power generation. Under current plans and policies, renewables would reach nearly 5% of total final energy consumption by 2030. Accelerated deployment, however, could boost Russia's renewable energy share to more than 11% in the same timeframe, according to this REmap working paper from the International Renewable Energy Agency (IRENA).

State of Japan

With no domestic fossil fuel reserves and a significant offshore wind resource, the Japanese Government wants to make floating offshore wind technology. As part of the country's plan to harness its solar energy resources, Japanese electronics and ceramics manufacturer Kyocera has also announced that it is beginning work on what will be the world's largest

floating solar installation. Composed of two large floating solar arrays, the 2.9 megawatt project is the first part of Kyocera's plan to develop around 30 floating two-megawatt power plants. In June 2014, Japan unveiled the first offshore floating wind turbine in Asia

United Arab Emirates

Since 2010, rising natural gas prices in the UAE have combined with rapidly falling technology costs for solar photovoltaic (PV) systems, in particular. This has made renewables a competitive option for power generation in the UAE – an oil exporter, but increasingly an importer of natural gas. Wind power and waste-to-energy conversion have also become economic with natural gas prices above USD 8 per million British thermal units (mBtu).

Ukraine

Ukraine has made significant progress in planning the future of its energy system and developing a renewable energy policy. By the year 2030, the increased use of renewable energy should reduce Ukraine's overall energy system costs, notes this report from the International Renewable Energy Agency (IRENA).

United Kingdom of Great Britain and Northern Ireland

According to a 2014 report from PwC, UK investment in clean technology since 2010 has focused on three main components: electricity, heat, and transportation.

The report noted that clean technology investments, driven largely by solar PV and offshore wind energy industries, have exceeded projections, to the tune of over £10 billion. Investments in clean heating and transport technologies have however lagged behind investments in clean electricity. The 23 turbines of Ovenden Moor wind farm are supplying sustainable clean, green power and have now been doing for over 15 years.

Since May 2018, there are now 8,879 wind turbines across the UK with a total installed capacity of over 19.2 gigawatts. This is 12,097 megawatts of onshore capacity and 7,114 megawatts of offshore capacity.

United Mexican States

Mexico has a large and diverse renewable energy resource base. Given the right mix of policies, the country could attract large-scale investments to diversify its energy supply, with the potential to increase the share of modern renewables in total final energy consumption to 21% by 2030, up from 4.4% in 2010.

United States of America

The United States has the potential to lead the global transition to renewable energy. It has some of the best wind, solar, geothermal, hydro and biomass resources in the world. It also has a vibrant culture of innovation, plentiful financing opportunities, and a highly skilled workforce, alongside an agile and entrepreneurial business sector.

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