

09 SDG7 Affordable and clean energy

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Overview

- I. International Renewable Energy Agency (IRENA)
 - II. What is SDG7 and why it matters?
 - III. Q2: **How much progress have we made** concerning this particular SDG since the launching of the 2030 Agenda for Sustainable Development in 2016?
 - IV. Q3: What are the **key challenges** in implementing this particular SDG?
 - V. Q4: Are there **good examples in implementing** this SDG goal? Please give an example where young people have been active in contributing to this SDG Goal?
 - VI. Q5: What actions do you **suggest for young people** to engage or participate in order to achieve this SDG Goal?
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- I. International Renewable Energy Agency (IRENA)
 - A. Established: 4 April 2011
 - B. Headquarters: Abu Dhabi
 - C. Member countries: 184
 - D. Mission: Supporting countries in their transition to greater use of renewable energy
 - E. Activities:
 1. Promote and support international co-operation
 2. Provide technology advice (office in Bonn, Germany)
 3. Produce studies on policy, finance, knowledge, statistics
- II. Importance of SDG7 and its targets and indicators
 - A. Sustainable Energy SDG 7 aims to ensure that everyone has access to affordable, reliable, sustainable and modern energy
 - B. Energy is important for all three dimensions of sustainability
 1. Social: Energy is one of the most basic human needs (cooking, heating, health)
 2. Environmental: Energy production and use have major environmental impacts
 3. Economic: The use of energy increases productivity and raises living standards

- C. Energy efficiency is not a constraint on growth, Countries can grow but as they grow, just use less energy.
1. Three Outcome targets (with 4 indicators)
 - a. Target 7.1: Universal access to modern energy
 - Target 7.1.1: Population (%) with access to electricity
 - Target 7.1.2: Population (%) using clean fuels and technology
 - b. Target 7.2: Increase global share of renewable energy
 - Target 7.2.1: RE share (%) of total final energy consumption
 - c. Target 7.3: Double the improvement in energy efficiency
 - 7.3.1: Energy intensity:
 - a. Use GDP as a measurement of energy efficiency
 - b. If richer countries aren't getting more dollars of GDP each year, that means they're having to decrease their energy consumption to get this achieve.
 2. Two Implementation targets (with 2 indicators)¹
 - a. Target 7.a: Increased research, technology and investment
 - 7.a.1: Financial flows to developing countries
 - b. Target 7.b: Expand infrastructure and technology
 - 7.b.1: RE electricity capacity in developing countries

III. Q2:

How much progress have we made concerning this particular SDG since the launching of the 2030 Agenda for Sustainable Development in 2016?

- A. Progress in electricity access from 2001 to 2020
 1. Electricity access of urban population is pretty much 99.5% and has been for a long time
 2. Electricity access of rural population goes up from about 65% in the year 2000 and now it's probably at around about 80%, thanks to the work has been done in the last 20 years to improve access to electricity
 3. Electricity access of rural population might still be increasing by one or a half a percent a year it's possibly the one where we're going to have the best chance of meeting the target,
- B. Progress in clean cooking access from 2000 to 2020: population with clean access to clean fuel and technology increased from 50% to about 70%
- C. Renewable energy consumption and share in total energy consumption 1990-2019: Consumption of both renewable and non-renewable energy are

¹ implementation Target emphasizes provide less developed countries with financial and technical support

increasing since 1990

D. Progress of Energy efficiency: Global primary energy intensity decrease from 1990 to 2019

IV. Q3:

What are the **key challenges** in implementing this particular SDG?

A. Main challenges: economic, technical and social

1. Cost of transition
 - a. Replacing existing infrastructure
 - b. Workforce (experience and skills)
 - c. Resource availability (existing and new energy sources)
2. Options for industry and transport are technically challenging
3. Social attitudes
 - a. Poor awareness of benefits from sustainable energy use
 - b. Resistance to change, risk aversion
 - some might think they can't get benefit from SDG7
 - others think they can't change their life style since they have to bring home the bacon.

V. Q4:

Are there **good examples in implementing** this SDG goal? Please give an example where **young people have been active in contributing to this SDG Goal?**

A. Off-grid solar power: providing affordable electricity access and job creation for young people

1. Trends: Huge increase in use of small-scale solar devices in the last decade. (from less than 20 to more than 160 per million population)
2. Benefits:
 - a. Affordable electricity for 170 million people.
 - b. Improved livelihoods from productive uses
 - c. 1.3 million jobs created, many for young people

VI. Q5:

What actions do you **suggest for young people** to engage or participate in order to achieve this SDG Goal?

A. Youth Sustainable Energy Hub

1. 100 projects exist (many more likely)
2. Advocacy and capacity building focus

B. Personal suggestions of speaker

1. Understand the benefits of sustainable energy and explain them to others
2. Be agents of change (own actions)
3. Consider a career in the field