SDG GOAL 7:
“AFFORDABLE AND CLEAN ENERGY INDICATORS”
OVERVIEW

Fuziah Md Amin
Agriculture and Environment Statistics Division
Department of Statistics Malaysia
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OUTLINE

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SDG OVERVIEW

What is Sustainable Development Goals?

A new, universal set of goals, targets, and indicators that UN member state will be expected to use to frame their agenda and political policies over the next 15 years (2016 – 2030)

Implementation and success will rely on countries’ own sustainable development policies, plans and programmes.

17 Goals, 169 Targets, 248 Indicators to Transform Our World

Revised and agreed during 53rd session in March 2022
SDG OVERVIEW

17 Goals

3 Dimensions

5 Focus Areas
SDG DIMENSION

SDG Dimension

Social

1. NO POVERTY
2. ZERO HUNGER
3. GOOD HEALTH AND WELL-BEING
4. QUALITY EDUCATION
5. GENDER EQUALITY
6. AFFORDABLE AND CLEAN ENERGY
7. SUSTAINABLE CITIES AND COMMUNITIES
8. DECENT WORK AND ECONOMIC GROWTH
9. INDUSTRY, INNOVATION AND INFRASTRUCTURE
10. REDUCED INEQUALITIES
11. PEACE, JUSTICE AND STRONG INSTITUTIONS
12. RESPONSIBLE CONSUMPTION AND PRODUCTION
13. CLIMATE ACTION
14. LIFE BELOW WATER
15. LIFE ON LAND

Environment
17 SDG GOALS

1. **End poverty in all its forms everywhere**

2. **End hunger, achieve food security and improved nutrition and promote sustainable agriculture**

3. **Ensure healthy lives and promote well-being for all at all ages**

4. **Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all**

5. **Achieve gender equality and empower all women and girls**

6. **Ensure availability and sustainable management of water and sanitation for all**

7. **Ensure access to affordable, reliable, sustainable and modern energy for all**

8. **Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all**

9. **Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation**

10. **Reduce inequality within and among countries**

11. **Make cities and human settlements inclusive, safe, resilient and sustainable**

12. **Ensure sustainable consumption and production patterns**

13. **Take urgent action to combat climate change and its impacts**

14. **Conserve and sustainably use the oceans, seas and marine resources for sustainable development**

15. **Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss**

16. **Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels**

17. **Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development**
GOAL 7: AFFORDABLE AND CLEAN ENERGY
FACTS AND FIGURES

733 million
people without access to electricity (2020)

2.4 billion
people rely on wood, coal, charcoal or animal waste for cooking and heating (2020)

17.7%
share of total final energy consumption from renewables (2019)

4.7 MJ/USD
primary energy intensity (2019)

10.9 USD billion
international financial flows to developing countries in support of clean energy (2019)

Sources: Tracking SDG7 The Energy Progress Report 2022
https://www.irena.org/
Between 2010 and 2020, the number of people with electricity increased from 83 to 91 percent, and the numbers without electricity dipped to just below one billion.

Yet as the population continues to grow, so will the demand for cheap energy, and an economy reliant on fossil fuels is creating drastic changes to our climate.

Investing in solar, wind and thermal power, improving energy productivity, and ensuring energy for all is vital if we are to achieve SDG 7 by 2030.

Expanding infrastructure and upgrading technology to provide clean and more efficient energy in all countries will encourage growth and help the environment.
SDG 7: AFFORDABLE AND CLEAN

Renewable energy solutions are becoming cheaper, more reliable and more efficient every day.

Our current reliance on fossil fuels is unsustainable and harmful to the planet, which is why we have to change the way we produce and consume energy.

Implementing these new energy solutions as fast as possible is essential to counter climate change, one of the biggest threats to our own survival.
GOAL 7: ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

Goal 7 is about ensuring access to clean and affordable energy, which is key to the development of agriculture, business, communications, education, healthcare and transportation. The lack of access to energy hinders economic and human development.

### Target 5 Targets

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<th>Target</th>
<th>Description</th>
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<td>By 2030, ensure universal access to affordable, reliable and modern energy services</td>
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<td>7.2:</td>
<td>By 2030, increase substantially the share of renewable energy in the global energy mix</td>
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<td>7.3:</td>
<td>By 2030, double the global rate of improvement in energy efficiency</td>
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<tr>
<td>7.a:</td>
<td>By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology</td>
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<tr>
<td>7.b:</td>
<td>By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support</td>
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### Indicator 6 Indicators

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<th>Indicator</th>
<th>Description</th>
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<td>7.1.1:</td>
<td>Proportion of Population with Access to Electricity</td>
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<td>7.1.2:</td>
<td>Proportion of population with primary reliance on clean fuels and technology</td>
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<td>7.2.1:</td>
<td>Renewable energy share in the total final energy consumption</td>
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<td>7.a.1:</td>
<td>International financial flows to developing countries in support of clean energy research and development and renewable energy production, including in hybrid systems</td>
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<tr>
<td>7.b.1:</td>
<td>Installed renewable energy-generating capacity in developing countries (in watts per capita)</td>
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### GOAL 7 INDICATORS

**7.1:** By 2030, ensure universal access to affordable, reliable and modern energy services

<table>
<thead>
<tr>
<th>Indicator 7.1.1:</th>
<th>Proportion of population with access to electricity</th>
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</table>
| **Definition:** | ❑ Is to the percentage of population with access to electricity. SDG7 ensures access to affordable, reliable, sustainable and modern energy for all.  
❑ This indicator refers to the proportion of population with access to electricity. This is expressed in percentage figures and is disaggregated by total, urban and rural access rates per country, as well as by UN regional and global classifications. |
| **Concept:**  | ❑ Electricity access in this scenario refers to the proportion of population in the considered area (country, region, and global context) that has access to consistent sources of electricity.  
❑ The World Bank’s Global Electrification Database compiles nationally representative household survey data as well as census data since 1990. It also incorporates data from the Socio-Economic Database for Latin America and the Caribbean, the Middle East and North Africa Poverty Database, and the Europe and Central Asia Poverty Database, all of which are based on similar surveys. |
| **Methodology** | ❑ Population with the access for consistence electricity |
| **Data Sources** | ❑ Household surveys and censuses conducted by respective countries |

Sources: https://unstats.un.org/sdgs/metadata
**GOAL 7 INDICATORS**

**7.1:** By 2030, ensure universal access to affordable, reliable and modern energy services

<table>
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<th>Indicator 7.1.2: Proportion of population with primary reliance on clean fuels and technology</th>
</tr>
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<tr>
<td><strong>Definition:</strong></td>
</tr>
<tr>
<td>❑ Proportion of population with primary reliance on clean fuels and technology is calculated as the number of people using clean fuels and technologies for cooking, heating and lighting divided by total population reporting that any cooking, heating or lighting, expressed as percentage.</td>
</tr>
<tr>
<td>❑ “Clean” is defined by the emission rate targets and specific fuel recommendations (i.e. against unprocessed coal and kerosene) included in the normative guidance WHO guidelines for indoor air quality: household fuel combustion.</td>
</tr>
<tr>
<td><strong>Concept:</strong></td>
</tr>
<tr>
<td>❑ Current global data collection focuses on the primary fuel used for cooking, categorized as solid or non-solid fuels, where solid fuels are considered polluting and non-modern, while non-solid fuels are considered clean.</td>
</tr>
<tr>
<td>❑ This single measure captures a good part of the lack of access to clean cooking fuels but fails to collect data on type of device or technology used for cooking, and fails to capture other polluting forms of energy use in the home such as those used for lighting and heating.</td>
</tr>
<tr>
<td><strong>Methodology</strong></td>
</tr>
<tr>
<td>❑ People using clean fuels and technologies for cooking, heating and lighting divided by total population</td>
</tr>
<tr>
<td><strong>Data Sources</strong></td>
</tr>
<tr>
<td>❑ Household surveys and censuses conducted by respective countries</td>
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Sources: https://unstats.un.org/sdgs/metadata
7.2: By 2030, increase substantially the share of renewable energy in the global energy mix

indicator 7.2.1: Proportion of population with primary reliance on clean fuels and technology

<table>
<thead>
<tr>
<th>Definition:</th>
<th>The renewable energy share in total final consumption is the percentage of final consumption of energy that is derived from renewable resources.</th>
</tr>
</thead>
</table>
| Concept:   | ❑ Renewable energy consumption includes consumption of energy derived from: hydro, wind, solar, solid biofuels, liquid biofuels, biogas, geothermal, marine and renewable waste.  
            ❑ Total final energy consumption is calculated from balances as total final consumption minus non-energy use. |
| Methodology | ❑ Percentage of final consumption of energy derived from renewable resources |
| Data Sources | ❑ National Energy Balances compiled by respective countries |

Sources: https://unstats.un.org/sdgs/metadata
7.3: By 2030, double the global rate of improvement in energy efficiency

**Indicator 7.3.1:** Energy intensity measured in terms of primary energy and GDP

| Definition: | Energy intensity is defined as the energy supplied to the economy per unit value of economic output. |
| Concept: | Total energy supply, as defined by the International Recommendations for Energy Statistics (IRES), is made up of production plus net imports minus international marine and aviation bunkers plus-stock changes. Gross Domestic Product (GDP) is the measure of economic output. For international comparison purposes, GDP is measured in constant terms at purchasing power parity. |
| Methodology | ☑ Energy supplied to the economy per unit value of economic output |
| Data Sources | ☑ National Energy Balances compiled by respective countries |

Sources: https://unstats.un.org/sdgs/metadata
**GOAL 7 INDICATORS**

**7.a:** By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.

<table>
<thead>
<tr>
<th>Indicator 7.a.1:</th>
<th>International financial flows to developing countries in support of clean energy research and development and renewable energy production, including in hybrid systems</th>
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</thead>
<tbody>
<tr>
<td><strong>Definitions:</strong></td>
<td>The flows are covered through two complementary sources.</td>
</tr>
<tr>
<td></td>
<td>- OECD: The flows covered by the OECD are defined as all official loans, grants and equity investments received by countries on the DAC List of ODA Recipients from foreign governments and multilateral agencies, for the purpose of clean energy research and development and renewable energy production, including in hybrid systems extracted from the OECD/DAC Creditor Reporting System (CRS).</td>
</tr>
<tr>
<td></td>
<td>- IRENA: The flows covered by IRENA are defined as all additional loans, grants and equity investments received by developing countries (defined as countries in developing regions, as listed in the UN M49 composition of regions) from all foreign governments, multilateral agencies and additional development finance institutions (including export credits, where available) for the purpose of clean energy research and development and renewable energy production, including in hybrid systems.</td>
</tr>
<tr>
<td><strong>Methodology</strong></td>
<td>- International financial flows to developing countries in support of clean energy RND</td>
</tr>
<tr>
<td><strong>Data Sources</strong></td>
<td>- Economic Co-operation and Development (OECD) and International Renewable Energy Agency (IRENA)</td>
</tr>
</tbody>
</table>

*Sources: https://unstats.un.org/sdgs/metadata*
GOAL 7 INDICATORS

By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support.

**Indicator 7.b.1:** Installed renewable energy-generating capacity in developing countries (in watts per capita)

**Definitions:**
The indicator is defined as the installed capacity of power plants that generate electricity from renewable energy sources divided by the total population of a country. Capacity is defined as the net maximum electrical capacity installed at the year-end and renewable energy sources are as defined in the IRENA Statute.

**Concept:**
- Electricity capacity is defined in the International Recommendations for Energy Statistics or IRES (UN, 2018) as the maximum active power that can be supplied continuously (i.e., throughout a prolonged period in a day with the whole plant running) at the point of outlet (i.e., after taking the power supplies for the station auxiliaries and allowing for the losses in those transformers considered integral to the station). This assumes no restriction of interconnection to the network. It does not include overload capacity that can only be sustained for a short period of time (e.g., internal combustion engines momentarily running above their rated capacity).
- The IRENA Statute defines renewable energy to include energy from the following sources: hydropower; marine energy (ocean, tidal and wave energy); wind energy; solar energy (photovoltaic and thermal energy); bioenergy; and geothermal energy.

**Methodology:**
- Installed capacity of power plants that generate electricity from renewable energy sources divided by the total population of a country

**Data Sources:**
- National Energy Balances compiled and population data by respective countries

Sources: https://unstats.un.org/sdgs/metadata
WORLD’S SELECTED INDICATORS FOR GOAL 7
7.1.1: Proportion of Population with Access to Electricity, 2010 and 2020

The global electricity access rate improved from 83% in 2010 to 91% in 2020. Over this period, the number of people without electricity shrank from 1.2 billion to 733 million.

Sources: The Sustainable Development Goals Report 2022
WORLD’S SELECTED INDICATORS FOR GOAL 7

7.1.2: Share of The Population with Access to Clean Cooking Systems, 2020

In 2020, 69% of the global population were using clean cooking fuels and technologies, as compared to 57% in 2010.

Sources: The Sustainable Development Goals Report 2022
7.2.1: Renewable Energy Share in The Total Final Energy Consumption, 2019

The share of renewable energy in total final energy consumption reached **17.7%** in 2019, **1.6%** higher than in 2010.

The main contribution was from the electricity sector, where the share of renewables now exceeds 26.2%. While, modern renewables for the heat and transport sectors penetrated 10.1% and 3.6% of the global market respectively.

Total **RENEWABLE ENERGY** consumption increased by a quarter between 2010 and 2019, But the share of renewables in total final energy consumption is only

**17.7%**

(2019)

2010: 16.1%

Sources: The Sustainable Development Goals Report 2022
**WORLD’S SELECTED INDICATORS FOR GOAL 7**

### 7.3.1: Average Annual Growth rate of Primary Energy Intensity, 1990-2010 and 2010-2019

Global primary energy intensity improved from 5.6 megajoules per US Dollar in 2010 to 4.7 in 2019, with an average annual improvement rate of 1.9%.

To meet Goal 7 target and make up for lost time, energy intensity improvements until 2030 will need to average 3.2% a year.

Sources: The Sustainable Development Goals Report 2022
7.a.1: International Financial Flows to Developing Countries for Renewables Energy, 2017-2019

International financial flows to developing countries in support of clean energy decreased for the second year in a row. They amounted to $10.9 billion in 2019 down by nearly 24% from previous year.

Sources: The Sustainable Development Goals Report 2022
“STATISTICS BLOOM IN HARMONY”

Doesn’t matter far or near
Strength in numbers
we don’t live in fear

Birds of feather flock together
Statistics our form of adour
We, will always live it up

So let us live in solidarity
And in the world arena we’ll succeed
It is statistics that will come to be
The reason we will bloom in harmony

Everybody undivided
Data’s where our hearts reside in
There will always be a bind

Just like fire that ignites
That’s how brightly lit our dreams are
We’ll reach higher than the stars

Sending love to one another
Leaving no one in a slumber
We will stand with unity

Mustering our courage while
Embracing our disparities
We’ll achieve our victory

One dream with unity
One love with harmony


THANK YOU