

Environment economics and policies

EC 506





Chapter 9: Sustainable Development and Achieving SDGs

Learning objectives

- *Understand sustainable development*
- *Explain MDGs and SDGs*
- *Evaluate environment related SDGs*



Sustainability: definition

The concept of sustainability has become popular as a criterion for evaluating decisions that have environmental implications. **Sustainability is a matter of making decisions in the short run that do not have serious negative impacts in the long run.** At the core of sustainable development is the need to consider “three pillars” together: **society, the economy and the environment. A practice is sustainable if it does not reduce the long-run productivity of the natural resource assets on which a country’s income and development depend.**

Sustainability is fundamentally a matter of renewable resources. When nonrenewable resources are used, they automatically become unavailable to future generations. The rule to follow here is to use them at the correct rate—neither too fast nor too slow—and to see to it that the natural wealth that they represent is converted into long-lived human-made wealth as they are used.

‘The sustainability problem’ – how to alleviate poverty in ways that do not affect the natural environment such that future economic prospects suffer. Sustainable development is “a moral concept that seeks to define a ‘fair and just’ development. It is driven by a conviction that the present generation must not deprive future generations of their right to thriving ecosystems, robust economies and stable societies.

Sustainable development also calls for intra-generational justice: a demand that the present generation address the needs of the poor and marginalized today, as a matter of equity and moral certitude.

Sustainable Development

Sustainable development to be the guiding principle for our age, as summarized by the five P's: People, Planet, Prosperity, Peace, and Partnerships.

People signifies the commitment to leave no person, no group, no nation, and no region behind.

Planet signifies the challenge of living within the planetary boundaries.

Prosperity signifies the commitment to extend the material benefits of modern education and technology to all parts of the world, and to all member states of the UN.

Peace signifies the vital commitment by all nations in the nuclear age to live together under the UN Charter and international law, including the duty of nonintervention in the internal affairs of other nations and the duty of peaceful resolution of conflicts, guided by international law.

Partnerships signifies the commitment by all stakeholders, including governments, civil society, and business organizations, to work together cooperatively, honestly, and ethically to achieve the shared goals of humanity.

Millennium Development Goals

In September 2000 the UN convened the Millennium Summit at its headquarters in New York, which was attended by representatives of 189 UN members, The Summit adopted the Millennium Declaration, and its eight chapters were subsequently developed into an action plan with eight goals, which were called the Millennium Development Goals, MDGs. The plan calls for the MDGs to be achieved by 2015. Those goals are:

1. Eradicate extreme poverty and hunger.
2. Achieve universal primary education.
3. Promote gender equality and empower women.
4. Reduce child mortality.
5. Improve maternal health.
6. Combat HIV/AIDS, malaria, and other diseases.
7. Ensure environmental sustainability.
8. Develop a global partnership for development.



Sustainable Development Goals

In September 2015, heads of states and governments met at the UN (United Nation) headquarter in New York and agreed on a new generation of 17 Sustainable Development Goals (SDGs) with 169 targets to succeed the MDGs (Millennium Development Goals) and to guide global development over the next 15 years till 2030.

MDGs versus SDGs

- MDGs was based on UN Millennium Declaration (2000) and SDGs are based on UNCSD (Rio+20 declaration, 2012).
- In the SDGs, unfinished agenda of MDGs are carried forward along with inclusion of human rights, peace, access to justice, energy, growth & employment, innovation & industrialization, urbanization & climate change issues.
- The MDG period was 2001-2015 and the SDG period is 2016 to 2030.
- MDG started with 8 goals, 18 targets and 48 indicators (later 20 targets & 60 indicators). SDGs starts with 17 goals, 169 targets and 232 indicators. (6 indicators used twice; 3 indicators thrice)
- MDGs were built on top down approach, but SDGs are built on bottom up approach.

Sustainable Development Goals

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MDGs versus SDGs (Contd.)

- MDGs were mainly focused for the LDCs but SDGs are universal. **UNIVERSALITY**
- Goal to goal linkages were missing in MDGs but well inter-linkages among the goals are there in SDGs. **INTEGRATION**
- MDGs focused on National level only quantitative data. But SDGs focus on quantitative and qualitative disaggregated data. **TRANSFORMATION**
- Means of Implementation (Mol) were absent in MDGs but well-coordinated Mols are present in SDGs. (Mol Target=> 43; Mol Indicators =>48)
- Hunger was treated as part of poverty in MDGs but hunger is now treated as part of food security and nutrition in the SDGs.
- Private sector was not involved in the MDGs implementation, but in SDGs they are treated as important players.

Sustainable Development Goals

First, and most important, these Goals apply to every nation ... and every sector. Cities, businesses, schools, organizations, all are challenged to act. This is called **Universality**.

Second, it is recognized that the Goals are all interconnected, in a system. We cannot aim to achieve just one Goal. We must achieve them all. This is called **Integration**.

And finally, it is widely recognized that achieving these Goals involves making very big, fundamental changes in how we live on Earth. This is called **Transformation**.



Sustainable Development Goals

1. **No Poverty:** Access to basic human needs of health, education, sanitation

2. **Zero Hunger:** Providing food and humanitarian relief, establishing sustainable food production

3. **Good Health and Wellbeing:** Better, more accessible health systems to increase life-expectancy

4. **Quality Education:** Inclusive education to enable upward social mobility and end poverty

5. **Gender Equality:** Education regardless of gender, advancement of equality laws, fairer representation of women

6. **Clean Water and Sanitation:** Improving access for billions of people who lack these basic facilities

7. **Affordable and Clean Energy:** Access to renewable, safe and widely available energy sources for all

8. **Decent Work and Economic Growth:** Creating jobs for all to improve living standards, providing sustainable economic growth

9. **Industry, Innovation and Infrastructure:** Generating employment and income through innovation

10. **Reduced Inequalities:** Reducing income and other inequalities, within and between countries

Sustainable Development Goals

11. **Sustainable Cities and Communities:**

Making cities safe, inclusive, resilient and sustainable

12. **Responsible Consumption and**

Production: Reversing current consumption trends and promoting a more sustainable future

13. **Climate Action:**

Regulating and reducing emissions and promoting renewable energy

14. **Life Below Water:** Conservation, promoting marine diversity and regulating fishing practices

15. **Life on Land:** Reversing man-made deforestation and desertification to sustain all life on earth

16. **Peace, Justice and Strong**

Institutions: Inclusive societies, strong institutions and equal access to justice

17. **Partnerships for the Goals:**

Revitalize strong global partnerships for sustainable development

Sustainable Development Goals

The SDGs were initially set for the fifteen-year period 2016–2030, following the fifteen-year period of the Millennium Development Goals (MDGs). It is clear that the SDGs will not be achieved in the original time frame. The SDG Agenda should remain the core of global cooperation to 2050. There are four reasons.

First, many of the objectives – such as the transition to zero-carbon energy systems – necessarily require a horizon to 2050.

Second, despite the commitments made in the Addis Ababa Action Agenda (2015) to align financial flows with the sustainable development agenda, the needed reform of the GFA has not yet been achieved. Thus, the emerging economies have faced chronic shortfalls in financing the SDGs.

Third, a series of global crises, including Covid-19, and wars in Ukraine, the Middle East, Africa, and other parts of the world, not only directly impeded SDG progress but also significantly heightened tensions among the major powers and undermined the global cooperation needed to achieve the SDGs.

Fourth, national and global governance of the SDGs have been deeply impaired by social polarization, powerful lobbies, lack of empowerment (or actual disempowerment) of civil society and academic institutions, and my-country-first policies that have imperiled global cooperation.

SDGs related to environment

6. Clean Water and Sanitation: Improving access for billions of people who lack these basic facilities

Target	Indicator
6.1	By 2030, achieve universal and equitable access to safe and affordable drinking water for all.
6.2	By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.
6.3	By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
6.4	By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
6.5	By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
6.6	By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

SDGs related to environment

7. Affordable and Clean Energy: Access to renewable, safe and widely available energy sources for all

Target	Indicator
7.1	By 2030, ensure universal access to affordable, reliable and modern energy services
7.2	By 2030, increase substantially the share of renewable energy in the global energy mix
7.3	By 2030, double the global rate of improvement in energy efficiency
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
7.b	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

SDGs related to environment

13. Climate Action: Regulating and reducing emissions and promoting renewable energy

Target	Indicator
13.1	Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
13.2	Integrate climate change measures into national policies, strategies and planning
13.3	Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
13.a	Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible
13.b	Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities & nbsp

Attention for the unfinished MDGs: Bangladesh

- Unemployment and underemployment was persistent especially among the young people between 15 to 24 years of age.
- Addressing stunting and wasting remained a major concern to improve nutritional wellbeing.
- Reducing income inequality and the low economic participation of women remained as matter of concerns.
- Primary education completion rate and the adult literacy rate were yet to obtain.
- Quality of education was a challenge at the primary and higher secondary levels.
- Inequalities remained in maternal health.
- Prevalence of malaria was still high even though death incidences are reduced.
- Prevalence of TB and TB mortality targets were yet to be achieved.
- **Tree coverage and proportion of protected terrestrial and marine areas was much less.**
- **Access to safe water for all was still a challenge.**
- **One-third population were not using improved sanitation.**
- **Capacity to raise public resources domestically is limited.**

Sustainable Development Goals: Bangladesh

BANGLADESH

OVERALL PERFORMANCE

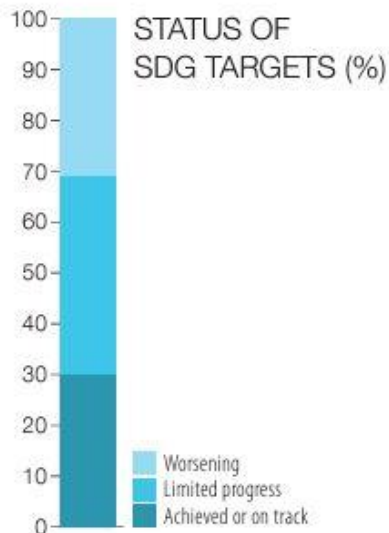
COUNTRY RANKING

107 /167

COUNTRY SCORE



REGIONAL AVERAGE: 66.5



The 7FYP (7th Five Year Plan 2016-2020) has been prepared in coordination with the targets of SDGs.

The 7FYP has made a reflection on the core goal of SDGs especially in ending poverty in all its form.

Bangladesh has achieved remarkable success in reducing the poverty in last few decades.

Sustainable Development Goals: Bangladesh



Sustainable Development Goals: Bangladesh

SDG6 – Clean Water and Sanitation

Population using at least basic drinking water services (%)	98.1	2022	●	↑
Population using at least basic sanitation services (%)	59.3	2022	●	→
Freshwater withdrawal (% of available freshwater resources)	5.7	2021	●	↑
Anthropogenic wastewater that receives treatment (%)	0.0	2020	●	●
Scarce water consumption embodied in imports (m ³ H ₂ O eq/capita)	338.0	2024	●	→

SDG7 – Affordable and Clean Energy

Population with access to electricity (%)	99.0	2021	●	↑
Population with access to clean fuels and technology for cooking (%)	26.5	2021	●	→
CO ₂ emissions from fuel combustion per total electricity output (MtCO ₂ /TWh)	1.0	2022	●	↑
Renewable energy share in total final energy consumption (%)	0.4	2020	●	→

SDG13 – Climate Action

CO ₂ emissions from fossil fuel combustion and cement production (tCO ₂ /capita)	0.6	2022	●	→
GHG emissions embodied in imports (tCO ₂ /capita)	0.6	2021	●	→
CO ₂ emissions embodied in fossil fuel exports (kg/capita)	NA	NA	●	●



Sustainable Development Goals: Bangladesh

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SREDA | National Database of Renewable Energy

The banner features a green background with silhouettes of wind turbines and solar panels. On the left is the SREDA logo (Sustainable and Renewable Energy Development Authority). On the right is the Bangladesh Government emblem. The background is filled with a grid of numerical data, including values like 29.374, 0.820, 17.293A, 205.20, -370.16, 10.888, +0.616, +2.370, 90.616A, 111.48, -300.77, 50.061, +0.374, +2.651, 11.009M, 108.33, -740.74, 37.820, -0.572, 20.308A, 293.08, -728.57, 18.447, -0.537, 18.447, -0.537, 100.95, -108.70, 38.101, +0.370, 38.101, +0.370, 100.95, -108.70, 100.616, +0.101, 100.616, +0.101, 100.616, +0.101, 100.616, +0.101, 48.061, +0.111, 48.061, +0.111, 48.061, +0.111, 48.061, +0.111, 57.482, +0.600, 57.482, +0.600, 57.482, +0.600, 57.482, +0.600, 108.74, -121.22, 108.74, -121.22, 108.74, -121.22, 108.74, -121.22, 40.648, +0.920, 40.648, +0.920, 40.648, +0.920, 40.648, +0.920, 310.40, -300.40, 310.40, -300.40, 310.40, -300.40, 310.40, -300.40.

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Renewable Energy Installed Capacity: **1550.56 MW**

All Organization ▾

All Sub-Organization/Office/Program ▾

Renewable Energy Share

