

SDGs after COVID-19: Synergies versus Trade-Offs

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1. Sustainable Development Goals (SDGs) — Overview

1.1 Background & Origin

In 2015, world leaders agreed on the 2030 Agenda and its 17 Sustainable Development Goals (SDGs). The SDGs were designed to carry forward the unfinished agenda of the Millennium Development Goals (MDGs). They represent the most ambitious and potentially transformative global agenda ever adopted by the international community.

Key Definition: The SDGs are 17 global goals established as part of the 2030 Agenda for Sustainable Development, adopted by all UN member states in September 2015. They replaced the Millennium Development Goals (MDGs) and aim to address poverty, inequality, climate change, environmental degradation, peace, and justice by the year 2030.

1.2 What Do the SDGs Promote?

المنافع العامة

The SDGs encourage investments in vital public goods, including:

providing

- Minimum levels of social protection
- Provision of services including health care, clean water, and education

1.3 How Are SDGs Measured?

Each country's progression toward an SDG is:

- Guided by a list of specific targets
- Measured against specific indicators

👉 Think of each SDG as a broad goal → broken into targets → measured by indicators. Like a report card for countries.

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المقصود أن أهداف التنمية المستدامة (SDGs) تشجع الدول والحكومات على الاستثمار بأشياء أساسية يحتاجها كل إنسان ليعيش حياة جيدة وصحية، ويسمى "public goods" أو المنافع العامة.

تشمل:

- Minimum levels of social protection
يعني توفير حد أدنى من الحماية الاجتماعية للناس، مثل:
 - دعم الفقراء
 - التأمين الصحي
 - رواتب التقاعد
 - مساعدات البطالة
 - حماية الأطفال وكبار السن
- Provision of services including health care, clean water, and education
يعني توفير خدمات أساسية للجميع مثل:
 - الرعاية الصحية
 - مياه نظيفة وآمنة
 - التعليم

الفكرة الأساسية:
الـ SDGs تريد تقليل الفقر وتحسين جودة الحياة وتحقيق العدالة بحيث يحصل كل الناس على احتياجاتهم الأساسية، وليس فقط الأثراء أو دول معينة.

1.4 Interconnectedness of the SDGs (KEY EXAM CONCEPT)

The SDGs are **deeply interconnected**. This is one of the most important concepts in the presentation:

Examples on Synergies

- Interventions aimed at achieving one goal can **leverage positive synergies among other goals.** *SDG 3*
- Strengthening **human well-being** is the entry point for maximizing progress across all SDGs.
- Investing in **education, science, and technology** builds capacities to respond to **pandemics**.
- Building **sustainable food systems** and **protecting the environment** can cascade positive outcomes across many SDGs.

EXAM TIP — Synergies vs. Trade-offs:

- Synergy = when progress in one SDG **HELPS** progress in another (positive interaction).
- Trade-off = when progress in one SDG **HINDERS** progress in another (negative interaction).

Example of synergy: **Improving education (SDG 4)** → **better pandemic response capacity (SDG 3)**.

Example of synergy: **Sustainable food systems** → **environmental protection** → **health outcomes.** *SDG 3*

SDG 2 :- Zero Hunger

1.5 SDG 3 — Health SDG and Its Linkages

Of the 17 SDGs, **SDG 3 focuses on health: "Ensure Healthy Lives and Promote Well-being for All at All Ages."**

SDG 3 is closely linked with and draws complementarity from many other SDGs:

SDG 1 — Poverty	Poverty affects access to healthcare; health costs can push people into poverty.
SDG 2 — Zero Hunger	Malnutrition leads to disease; food security supports health outcomes.
SDG 4 — Quality Education	Education improves health literacy and capacity to respond to pandemics.
SDG 5 — Gender Equality	Women are majority of health workers and are disproportionately affected.
SDG 6 — Clean Water & Sanitation	Access to clean water is critical for disease prevention and health.
SDG 13 — Climate Action	Climate change affects disease patterns, air quality, and health systems.
SDG 14 — Life Under Water	Aquatic ecosystems affect food security and disease vectors.
SDG 15 — Life on Land	Biodiversity loss and deforestation can increase zoonotic disease transmission.
SDG 17 — Partnerships for Goals	International cooperation is essential to address global health challenges.

Mnemonic :- **PHEGW CLiP**
لقطه فيقو

- 1) P:- No Poverty
- 2) H:- Zero Hunger
- 4) E:- Education
- 5) G:- Gender Equality
- 6) W:- Clean water
- 13) C:- Climate Action
- 14) L:- Life under water
- 15) Life on land
- 17) P:- Partnership for goals.

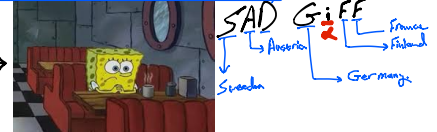
2. SDGs Before COVID-19 — Pre-Pandemic Progress

2.1 Top Performers in 2019

In 2019, the following countries were the top performers worldwide, achieving the highest scores on the SDG Index:

- Sweden
- Denmark
- Finland
- France
- Austria
- Germany

Mnemonic: Jordan is not with them →



2.2 Areas of Strong Progress

Top performers were progressing well in:

- SDG 1 — No Poverty
- SDG 3 — Good Health and Well-Being
- SDG 6 — Clean Water and Sanitation
- SDG 7 — Affordable and Clean Energy

2.3 Areas Requiring Substantial Effort

Even top performers needed significant improvement in:

- SDG 13 — Climate Action
- SDG 14 — Life Below Water

2.4 Regional Progress on SDG Index (2010–2019)

The SDG Index by regions showed the following trends from 2010 to 2019:

1) OECD Countries	Highest scores (above 75), <u>steady upward trend</u> — leading globally.
2) Latin America & the Caribbean	Scores around 70, <u>slow steady improvement</u> .
3) Eastern Europe & Central Asia	Scores around 70, <u>gradual improvement</u> .
4) Middle East & North Africa	Scores around 65, <u>gradual improvement</u> .
5) East and South Asia	Scores around 62–67, <u>notable improvement over the decade</u> .
6) Sub-Saharan Africa	Scores around 50–53, <u>slow but steady improvement</u> .
7) Oceania	Lowest scores (around 49–50), <u>stagnant with minimal improvement</u> .
8) World Average	Dotted line rising from ~63 to ~67 — <u>overall global improvement</u> .


Old Ladies Eat Many Eggs, Silly Old World
 75 70 70 65 65 50 50, 65

∴ Mnemonic

2.5 Progress by Income Group (2010–2019)

Progress varied significantly by income group:

High-income Countries (HICs)	Scores ~77–79. Already at high level, slow improvement.
Upper Middle-income Countries (UMICs)	Scores rose from ~69 to ~74. Good progress.
Lower Middle-income Countries (LMICs)	Scores rose from ~56 to ~62. Notable improvement.
Low-income Countries (LICs)	Scores rose from ~47 to ~51. Improving but still far behind.

 Key insight: All income groups improved, but a large gap remains between rich and poor countries.

2.6 SDG 3 Progress Before COVID-19

Key health indicators showed positive trends before the pandemic:

Neonatal Mortality Rate: Declined from 31 deaths per 1,000 live births in 2000 to 18 in 2017.
DTP Vaccine Coverage: Increased from 72% in 2000 to 85% in 2017 (diphtheria, tetanus, pertussis).
Measles Vaccine (2nd dose): Increased from 59% in 2015 to 67% in 2017.
HIV Incidence (adults 15–49): Declined by 22% between 2010 and 2017.

2.7 SDG 3 Challenges Before COVID-19

Despite progress, significant challenges remained even before the pandemic:

- In 2018: 40% of all countries had fewer than 10 medical doctors per 10,000 people.
- Over 55% of countries had fewer than 40 nursing and midwifery personnel per 10,000 people.
- Delays in addressing malaria and tuberculosis globally.
- Half of the global population lacked access to essential health services.
- Many people faced financial hardship from healthcare costs, pushing them into extreme poverty.

3. COVID-19 Impact on the SDGs

3.1 General Impact on All SDGs

The COVID-19 pandemic had widespread, cross-cutting effects on all SDGs:

- COVID-19 started as a health crisis but quickly snowballed into an economic crisis and humanitarian crisis.
- It overshadowed developmental activities as global political, financial and technical resources were mobilized to contain the pandemic.
- The sudden occurrence obstructed global collaborative efforts in progressing towards the SDGs.
- All 17 SDGs were impacted. Given their interconnected nature, health-related SDG 3 was severely hit.
- The impact is long-lasting, influencing all spheres of human lives.
- COVID-19 restrictions impacted education, human rights, basic food security, and nutrition.

3.2 Specific Impact on Each SDG (from UNDESA diagram)

The following shows how COVID-19 affected specific SDGs:

SDG 1 — No Poverty	Loss of income; vulnerable families fell below the poverty line.
SDG 2 — Zero Hunger	Food production and distribution were disrupted.
SDG 3 — Good Health	Devastating effect on health outcomes across all areas.
SDG 4 — Education	Schools closed; remote learning less effective and inaccessible for many.
SDG 5 — Gender Equality	Women's economic gains at risk; increased violence against women. Women are majority of health workers, more exposed to COVID-19.
SDG 6 — Clean Water	Supply disruptions and inadequate access to clean water hindered handwashing — a key COVID-19 prevention measure.
SDG 7 — Clean Energy	Supply and personnel shortages led to disrupted electricity access, further weakening health systems.
SDG 8 — Economic Growth	Economic activities suspended; lower income, less work time, unemployment in certain occupations.
SDG 10 — Reduced Inequalities	Inequalities deepened significantly.
SDG 11 — Sustainable Cities	People living in slums faced higher exposure risk due to high population density and poor sanitation.
SDG 13 — Climate Action	Reduced commitment to climate action, BUT less environmental footprint due to less production and transportation.
SDG 16 — Peace & Justice	Conflicts prevented effective measures against COVID-19; conflict areas most at risk.
SDG 17 — Partnerships	Aggravated backlash against globalization, but highlighted importance of international cooperation on public health.

4. Impact of COVID-19 on SDG 3 — Health (Detailed)

4.1 Impact on Vaccination Programs

- Polio vaccination campaigns were suspended worldwide — threatening decades of eradication efforts.
- Measles immunization campaigns were suspended in 23 countries, affecting almost 80 million eligible children.
- Any disruption of immunization services, even for short periods, results in higher incidence of vaccine-preventable diseases.
- WHO and UNICEF issued a Joint Statement calling for routine immunization to continue during the pandemic.

4.2 Impact on Children and Vulnerable Groups

- Children and women, along with the elderly, suffered the most due to economic hardships (even though direct COVID-19 mortality was lower in children).
- Infant Mortality Rate (IMR) is associated with family income and nutrition status.
- Malnutrition predisposes children to several ailments and negatively affects their growth.
- With schools closed indefinitely in 143 countries, 368.5 million children were denied their daily school meals.
- Challenges arose in providing antenatal and delivery care during the pandemic.

4.3 Impact on Health Systems

- COVID-19 shifted the priorities of health systems — hospitals and facilities were overwhelmed with COVID-19 patients.
- Other patients with acute or chronic ailments found it difficult to access standard care.
- Logistics and supplies were disrupted, especially imported materials and equipment (e.g., essential drugs). *→ Private production equipment.*
- Procurement of PPE and COVID-19 tests adversely affected other priorities.
- Fear of contracting COVID-19 prevented patients from seeking healthcare in facilities.

4.4 Impact on Specific Diseases

- HIV/AIDS treatment: Interruptions in medicine intake are not only detrimental to patient health but also risk development of drug resistance.
- Tuberculosis (TB): Same risk of resistance with treatment interruptions.
- HIV/AIDS, TB, malaria, and polio — previously global health priorities — took a back seat.
- Attention shifted toward infectious disease threats that could affect high-income countries.

4.5 Impact on Non-Communicable Diseases (NCDs)

- Patients requiring periodic cancer therapies, monitoring, and care of complications suffered from non-availability of services.
- This had a negative impact on both the physical and mental health of NCD patients.
- Medical and surgical emergencies (including road traffic accidents) were neglected when health systems were fully engaged in pandemic response.

EXAM SUMMARY — COVID-19 Impact on SDG 3:

1. Vaccination programs disrupted (polio, measles, routine immunizations) → ↑ Vaccine preventable diseases.
2. 368.5 million children lost school meals (143 countries with closed schools)
3. Antenatal and delivery care challenges
4. Health system overwhelmed — difficult to access non-COVID care
5. Supply chain disruptions for essential drugs and equipment
6. Neglect of HIV/AIDS, TB, malaria, polio programs → Rise the risk of Resistant strains to appear after treatments
7. NCD patients (cancer etc.) could not access regular treatments ^{Support}
8. Fear kept patients from seeking healthcare → hospitals is crowded with COVIDs.
9. Children, women, and elderly suffered most from economic hardships

↓
mortality was
lower.

5. SDGs as a Framework for Crisis Mitigation and Recovery

5.1 Why SDGs Are Essential for Crisis Response

- SDGs cover precisely the areas where progress is needed to build resilience and guard against future crises.
- Progressing in SDGs helps enhance coping with both immediate and longer-term impacts of emergencies.
- The universal scope and interlinked nature of SDGs are essential to address crises and guide recovery pathways.

5.2 SDGs and Post-COVID Recovery (Sachs et al., 2019)

The SDGs provide the framework needed to guide both immediate post-crisis recovery and long-term strategies toward more resilient and sustainable societies. Six transformations are central to this recovery:

Transformation 1	Education, Gender and Inequality — Addressing disparities in access to quality education.
Transformation 2	Health, Well-being and Demography — Building robust health systems for all ages.
Transformation 3	Energy Decarbonization and Sustainable Industry — Transitioning to clean energy.
Transformation 4	Sustainable Food, Land, Water and Oceans — Food security and environmental protection.
Transformation 5	Sustainable Cities and Communities — Urban resilience and infrastructure.
Transformation 6	Digital Revolution for Sustainable Development — Harnessing technology to close divides.

 The overarching principle across all six transformations is: 'Leave No One Behind.'

Story Mnemonic

"Every Healthy Engineer Feeds Clean Devices."

- Every → Education, Gender & Inequality
- Healthy → Health, Well-being & Demography
- Engineer → Energy Decarbonization & Sustainable Industry
- Feeds → Sustainable Food, Land, Water & Oceans
- Clean → Sustainable Cities & Communities
- Devices → Digital Revolution for Sustainable Development

Easier Story for Exams

Imagine a normal day:

1. You go to Education (school).
2. You stay Healthy by visiting the doctor.
3. You charge your phone with clean Energy.
4. You eat Food and drink water.
5. You return to your City.
6. You use Digital technology to study.

Order: Education → Health → Energy → Food → Cities → Digital.

6. Is the SDGs 2030 Deadline Unrealistic After COVID-19?

6.1 The Grim Reality

- It will take years to fully understand the impacts of the crisis with certainty.
- Initial assessments are grim — enormous losses of lives and livelihoods, deepening poverty and hunger.
- Countries should move toward recovery with *أشياء* coherent actions toward achieving the SDGs.
- Taking advantage of synergies and addressing trade-offs among the SDGs is the only way to achieve the 2030 Agenda.

6.2 Silver Linings — Positive Outcomes from the Pandemic

Despite the devastation, COVID-19 revealed potential positive developments:

- The pandemic was a turning point for health emergency preparedness. *we learn alot from it.*
- National health authorities learned to plan for health challenges while simultaneously progressing toward the SDGs. *Same as first*
- The pandemic offered an opportunity to improve sanitation and hygiene, increase social protection access, and build health system resilience.
- Governments' COVID-19 guidelines led to new realizations about behavior changes that can support long-term climate action.
- Lockdown policies were associated with a substantial decline in CO2 emissions and a reduction in road traffic accidents.
- The world recognized the vital importance of addressing the needs of children, women, elderly, and NCD patients to sustain MDG/SDG gains.

7. What Countries Need to Do to Achieve SDGs by 2030

7.1 Health System & Social Protection Actions

- Maintain past progress made toward eradicating basic deprivations.
- Reinforce SDGs in the context of crisis response and recovery.
- Respond to pandemics while continuing to build stronger social, health and economic systems to reduce future vulnerabilities.
- Build health systems and people's resilience to cope with disasters.
- Continue standard health service provisions supported by an efficient supply chain for quality, comprehensive and sustainable essential health services delivery.
- Increase investment in public health, epidemiological surveillance, data management, health registries and research.
- Countries must pursue universal health coverage and support social justice, gender equity, and human rights.

We should continue working on SDGs while pandemics or crisis.

if there is a pandemic, standard care for normal ppl should be neglected!

to detect diseases before they turn into epidemics.

7.2 Equity & Governance Actions

rich & poor / polar societies

- Bridge the gaps and combat inequality — essential to leave no one behind.
- Increase access to social protection as economies decline.
- Collaboration of all stakeholders in knowledge sharing and community engagement for the public good.
- Address the needs of children, women, elderly with NCDs.

like Health Insurance.

7.3 Environmental & Technological Actions

- Reverse the degradation of nature.
- Create a more sustainable world through technology and address the digital divide.
- All actions in the right direction must be sustainable.

FINAL EXAM SUMMARY — Key Takeaways:

1. SDGs were adopted in 2015 as part of the 2030 Agenda — 17 goals replacing the MDGs.
2. SDGs are interconnected; progress in one goal creates synergies for others.
3. SDG 3 (Health) is central and linked to 9 other SDGs.
4. Before COVID-19, progress was uneven but generally positive globally.
5. COVID-19 began as a health crisis, escalated into economic and humanitarian crises.
6. ALL 17 SDGs were negatively impacted; SDG 3 was most severely hit.
7. Vaccination campaigns (polio, measles) were suspended; 80M children affected.
8. 368.5 million children lost school meals (143 countries).
9. HIV/AIDS, TB, malaria programs were deprioritized.

10. COVID-19 also had a silver lining: CO2 reduction, behavior change insights, health preparedness.
11. SDGs are the framework for both short-term crisis recovery and long-term resilience.
12. To achieve 2030 targets: universal health coverage, combat inequality, invest in systems, go green.

8. Key Terms Glossary

SDGs	Sustainable Development Goals — 17 global goals adopted in 2015 under the 2030 Agenda.
MDGs	Millennium Development Goals — predecessor to SDGs, adopted in 2000.
SDG Index Score	A composite measure of a country's overall progress across all 17 SDGs.
Synergy	When progress in one SDG positively supports progress in another SDG.
Trade-off	When progress in one SDG negatively impacts progress in another SDG.
SDG 3	"Good Health and Well-being" — the health-focused SDG, most impacted by COVID-19.
Universal Health Coverage	Ensuring all people can access quality health services without financial hardship.
NCD	Non-Communicable Disease — e.g., cancer, diabetes, cardiovascular disease.
DTP Vaccine	Vaccine protecting against Diphtheria, Tetanus, and Pertussis (whooping cough).
IMR	Infant Mortality Rate — number of infant deaths per 1,000 live births.
UNDESA	United Nations Department of Economic and Social Affairs — source of COVID-19 SDG impact diagram.
2030 Agenda	The UN's plan adopted in 2015 with 17 SDGs to be achieved by the year 2030.
Leave No One Behind	The core principle of the 2030 Agenda — ensuring all people benefit from development.
HIC/UMIC/LMIC/LIC	High/Upper-Middle/Lower-Middle/Low Income Countries — World Bank classifications.
Epidemiological Surveillance	Systematic monitoring and analysis of health data to detect and control disease outbreaks.