

Sustainable Development Goals and Türkiye in the Centennial of the Republic

Cumhuriyetin 100. Yılında Sürdürülebilir Kalkınma Amaçları ve Türkiye

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Abstract

The concept of sustainable development was first defined in 1987 by the World Commission on Environment and Development, a sub-organization of the United Nations, in the report entitled Our Common Future, also known as the Brundtland Report. Accordingly, sustainable development is the development that will be realized without compromising the ability of future generations to meet their own needs and expectations. In the 100th anniversary of the Turkish Economic Congress, there is no better tool than the United Nations Sustainable Development Goals to measure the economic performance of our country on the road to contemporary civilization. In this study, on the one hand, the economic picture of the country is taken by comparing the position of the Turkish economy after a century with other states. On the other hand, a road map is presented on which topics progress can be made by making suggestions to policymakers as the Republic passes into its second century.

Keywords: Sustainable Development, Turkish Economy, Sustainable Development Goals

Öz

Sürdürülebilir kalkınma kavramı ilk kez 1987 yılında Birleşmiş Milletler'in bir alt kuruluşu olan Dünya Çevre ve Kalkınma Komisyonu tarafından Brundtland Raporu olarak da bilinen Ortak Geleceğimiz başlıklı raporda tanımlanmıştır. Buna göre sürdürülebilir kalkınma, gelecek nesillerin kendi ihtiyaç ve beklentilerini karşılayabilme yeteneğinden ödün vermeden gerçekleştirilecek kalkınmadır. Türkiye İktisat Kongresi'nin 100. yılında ülkemizin çağdaş uygarlık yolundaki ekonomik performansını ölçmek için Birleşmiş Milletler Sürdürülebilir Kalkınma Amaçlarından daha iyi bir araç olamaz. Bu çalışmada bir yandan Türkiye ekonomisinin bir asır sonra geldiği konum diğer devletlerle karşılaştırılarak ülkenin ekonomik fotoğrafı çekilmekte, diğer yandan Cumhuriyet ikinci yüzyılına geçerken politika yapıcılara önerilerde bulunularak hangi konularda ilerleme kaydedilebileceği konusunda bir yol haritası sunulmaktadır.

Anahtar Kelimeler: Sürdürülebilir Kalkınma, Türkiye Ekonomisi, Sürdürülebilir Kalkınma Amaçları

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Atıf/Citation: Yılmaz, A.F., Engin Balın, B. & Garan, Ö. (2025). Sustainable Development Goals and Türkiye in the Centennial of the Republic. *Recep Tayyip Erdoğan University Journal of Social Sciences*, 12(1), 152-176.

Geliş Tarihi	30.01.2025
Kabul Tarihi	06.02.2025
Yayın Tarihi	30.06.2025
Değerlendirme	İki Dış Hakem / Çift Taraflı Körleme
Etik Beyan	Bu çalışmanın hazırlanma sürecinde bilimsel ve etik ilkelere uyulduğu ve yararlanılan tüm çalışmaların kaynakçada belirtildiği beyan olunur.
Benzerlik Taraması	intihal.net
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Çıkar Çatışması	Çıkar çatışması beyan edilmemiştir.
Finansman	Bu araştırmayı desteklemek için dış fon kullanılmamıştır.
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1. Introduction

The concept of sustainability is not as new as one might think. As early as the ancient Egyptian, Mesopotamian, Greek, and Roman civilizations were aware of environmental problems such as deforestation, salinization, and loss of soil fertility, which today are referred to as sustainability problems. In the 5th century BC, Plato, followed by Strabo and Columella in the 1st century BC, and later by Pliny the Elder in the 1st century AD, engaged in discussions regarding various forms of environmental deterioration caused by human actions like agriculture, deforestation, and mining. The term 'sustainability' might not have been explicitly employed, but they recognized the concept of environmental degradation and advocated for preserving the Earth's everlasting youth (Dhanani, 2022).

During the 18th century, as the Industrial Revolution dramatically reshaped global societies, humanity's forward march became intertwined with economic expansion and material progress. However, this progress brought along the unequal distribution of wealth, exploitation of raw materials on a global scale, and drastically increasing greenhouse gas emissions. Until the mid-20th century, the problem of climate change was a topic of interest to meteorologists and was discussed in this context in the international arena, but neither its existence nor its consequences were fully agreed upon. Nevertheless, the studies carried out in this period are important in that they were pioneering and, despite their primitive measurement techniques, they reached results quite close to those of today.¹ In 1952, in the great smog of London, it is estimated that more than 4000 people died immediately, and a further 8000 died over the following year, mainly caused by respiratory tract infections (Dhanani, 2022). Concern over this tragedy led to the passing of the Clean Air Act of 1956.

The concept of sustainability as we use it today became part of the global agenda for the first time at the United Nations Environment Conference held in Stockholm on 5-16 June 1972 ("Stockholm 1972", 2023). With the UN Environment Programme established in the same year, a consensus was reached to ensure that member states follow the developments on the subject and follow up the decisions taken at the conference ("Stockholm 1972", 2023). It will take another 15 years for the concept to gain an economic dimension and be discussed in the context of sustainable development. The Brundtland Report, which set out with the motto *Our Common Future*, opened the concept of sustainable development to the discussion under the roof of the United Nations in 1987 and enabled it to be defined and entered the literature ("Brundtland Report", 2023). By 1992, the UN Conference on Environment and Development organized in Rio de Janeiro would lead to significant progress on many issues ("Rio 1992", 2023). Apart from the adoption of Agenda 21, firsts such as the UN Framework Convention on Climate Change and the opening of the UN Convention on Biological Diversity for signature make the conference an important milestone in world history. Five years later, in 1997, with the Third Conference of the Parties, the United Nations Framework Convention on Climate Change was adopted; another equally important development was the preparation of the Kyoto Protocol ("NY 1997", 2023). The Kyoto Protocol is the first international protocol with binding provisions on climate change.²

¹ For a brief historical background of the climate change problem, please see Engin (2010).

² This section is summarised in Figure 1.

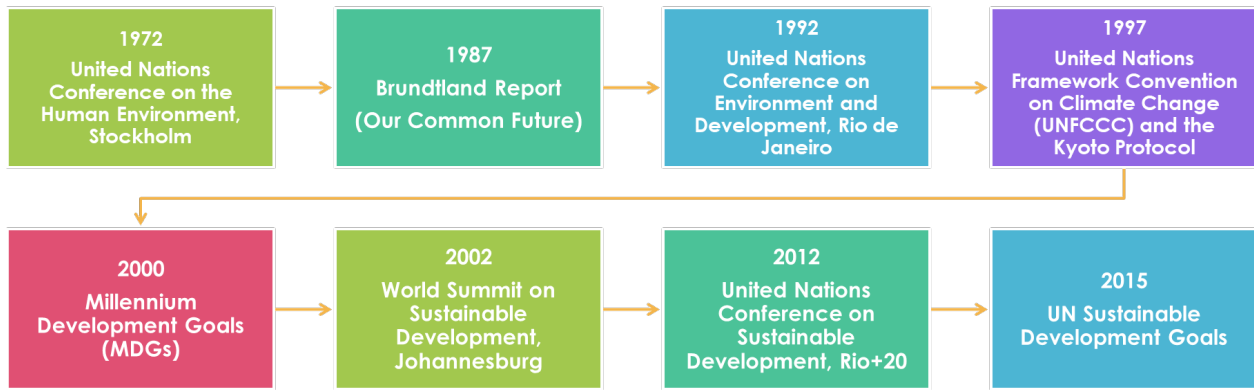
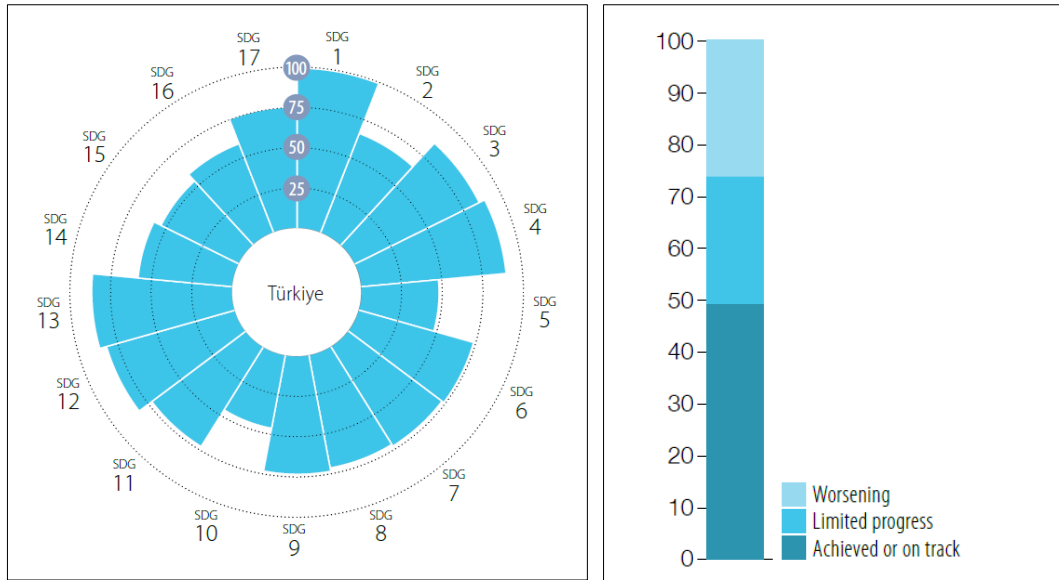


Figure 1. Milestones of Sustainable Development

Source: Compiled during the research process.

Developments related to sustainability continued in the first year of the 21st century, and the Millennium Development Goals (MDGs), consisting of 8 articles, were adopted at the Millennium Summit held in New York in 2000 ("NY 2000", 2023)³. Two years later, at the World Summit on Sustainable Development held in Johannesburg in 2002, negotiations on sustainable development goals continued among the participating countries ("Johannesburg 2002", 2023). After three consecutive summits in New York in 2005, 2008, and 2020, a 10-year framework plan was adopted by the participating countries at the summit in Rio in 2012 ("Rio 2012", 2023). After the summit held in New York one year later, 17 sustainable development goals were unanimously adopted by the member states at the final summit held in 2015 ("NY 2015", 2023). In this context, 2030 was declared as the deadline for achieving all goals. This agreement is an urgent call for action to bring developed and developing countries together for a global partnership and is based on the balanced integration of economic, social, and environmental dimensions of sustainable development. In this context, 169 targets and 232 individual indicators have been defined under 17 sustainable development goals, and the performance of countries is regularly monitored.

³ Millennium Development Goals (MDGs): (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; and (8) Develop a global partnership for development ("NY 2000", 2023).



Türkiye first introduced the concept of sustainable development in the 6th Development Plan in 1990, when socioeconomic policies with environmental policies were accepted as the fundamental principle (Özekan, 2020). Following the 1992 Rio Conference and during the past quarter century, Türkiye consistently emphasized its commitment to work for a sustainable world. According to the 2023 Sustainable Development Report, Türkiye ranks 72nd among 166 countries, with an index score of 70.8. Overall, Türkiye's highest achievement was in SDG 1, while the lowest score was recorded in SDG 10 (Sachs et al., 2023). (See Figure 2 above).

2. Research Method

The research question of this study is, “By which indicators can Türkiye's performance in achieving the sustainable development goals in its 100th year be evaluated, and which policy recommendations should be developed?” This study takes a descriptive perspective and analyzes Türkiye's process of achieving sustainable development goals in light of various indicators. Descriptive analysis is a research method that aims to reveal the current situation regarding the research topic in detail. This method covers the process of systematic examination, classification, and interpretation of data (Babbie, 2020). The main purpose of descriptive analysis is to describe events or phenomena as they are without establishing any causal relationship and to interpret them in the relevant context (Yin, 2018).

This method has a wide range of applications in social sciences and is widely used in areas such as comparative studies, policy analysis, research evaluating social trends, and observational data analysis (Creswell, 2014). In disciplines such as economics, political science, sociology, and development studies, it allows economic and social structures to be analyzed within the framework of certain indicators.

Descriptive analysis generally adopts an approach where quantitative and qualitative data sets can be used together. For example, research such as analyzing a country's economic growth trends, assessing progress towards sustainable development goals, or examining the change in social inequalities over time can be considered within the scope of descriptive analysis (Bryman, 2015). In this method, statistical indicators,

tables, graphs, and thematic analyses are used to present the general situation of phenomena, while causal hypotheses are avoided (Neuman, 2019).

However, descriptive analysis should not be confused with analytical methods for determining causal relationships. This is because this approach does not seek to test cause-and-effect relationships between variables or verify hypotheses; it only aims to make sense of observed data by presenting them in a systematic framework (Gerring, 2017). Therefore, inferences can be made that can guide policymaking processes, but these inferences should not be interpreted as direct causal conclusions.

As a result, descriptive analysis makes significant contributions to academic knowledge production by organizing, comparing, and interpreting data. Analyzing Türkiye's economic and social performance within the framework of sustainable development indicators is one of the areas where this method can be applied. In this context, descriptive analysis is an important tool that can guide policymakers by evaluating the effectiveness of existing policies.

The study evaluates Türkiye's economic and social development performance on the basis of international comparisons and develops recommendations for policymakers. The study presents a data-based analysis by focusing on identifying the current situation; however, it does not adopt a research design to establish any causal relationship or statistically test the links between variables. In this context, the findings of the study are evaluated in the light of the relevant literature and recent data sets, and Türkiye's position in the context of sustainable development is presented in comparison with international examples.

This study will analyze Türkiye's performance in achieving the Sustainable Development Goals based on the 2023 Sustainable Development Report data. In each sub-section, the relevant Sustainable Development Goal is first introduced, followed by an analysis of global performance and Türkiye's performance in this goal.

3. Türkiye's Performance in Reaching Sustainable Development Goals

3.1. SDG 1: No poverty

The goal of "Ending Poverty," established to eliminate all forms of poverty everywhere, was ranked first because it is the most important among the seventeen topics. The United Nations, which calls for combating extreme poverty, defined as living on less than \$2.15 a day in all parts of the world, has announced 2030 as the deadline for all SDGs. In particular, developing countries, as well as the least developed countries, have been scrutinized in this context, and it has been agreed that all people, men, women, and children, should be freed from the grip of poverty. In this context, Africa, Southwest Asia, and the West Coast of North America are the places in the world that should pay the most attention to the fight against poverty (Figure 3).

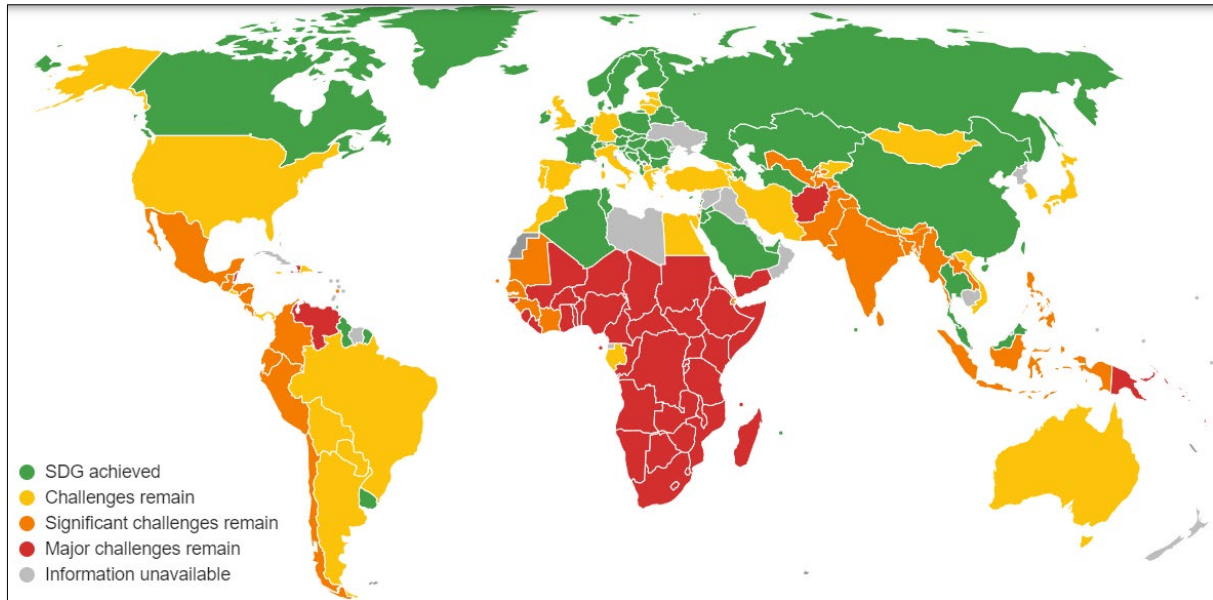


Figure 3. Global Performance in SDG1

Source: Sachs et al. 2023

Türkiye's performance in the fight against poverty shows a tendency to struggle with difficulties (Table 1). The proportion of the population living on less than \$2.15 per day is below 1 percent, and the ratio living on less than \$3.65 per day is below 4 percent. Although the 2023 data suggest that the trend is in a positive direction, it should be emphasized that more measures must be taken soon.

Table 1. Türkiye's Performance in SDG1 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Poverty headcount ratio at \$2.15/day (%)	0,76	2023	●	↑
Poverty headcount ratio at \$3.65/day (%)	1,39	2023	●	↑
Poverty rate after taxes and transfers (%)	15	2019	●	↑

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	→ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.2. SDG2: Zero Hunger

The Zero Hunger development goal, designed to end world hunger, enable food security and good nutrition, and promote sustainable agriculture, has eight sub-goals. Focusing mainly on the hunger problems of vulnerable groups, such as poor infants, this goal advocates that all forms of malnutrition should be tackled by 2030. Adolescent girls, pregnant and lactating women, and the elderly are important components of the target group. The world is not performing favorably on the issue (Figure 4). Many regions, particularly Africa, Southwest Asia, North America, and Australia, struggle with hunger.

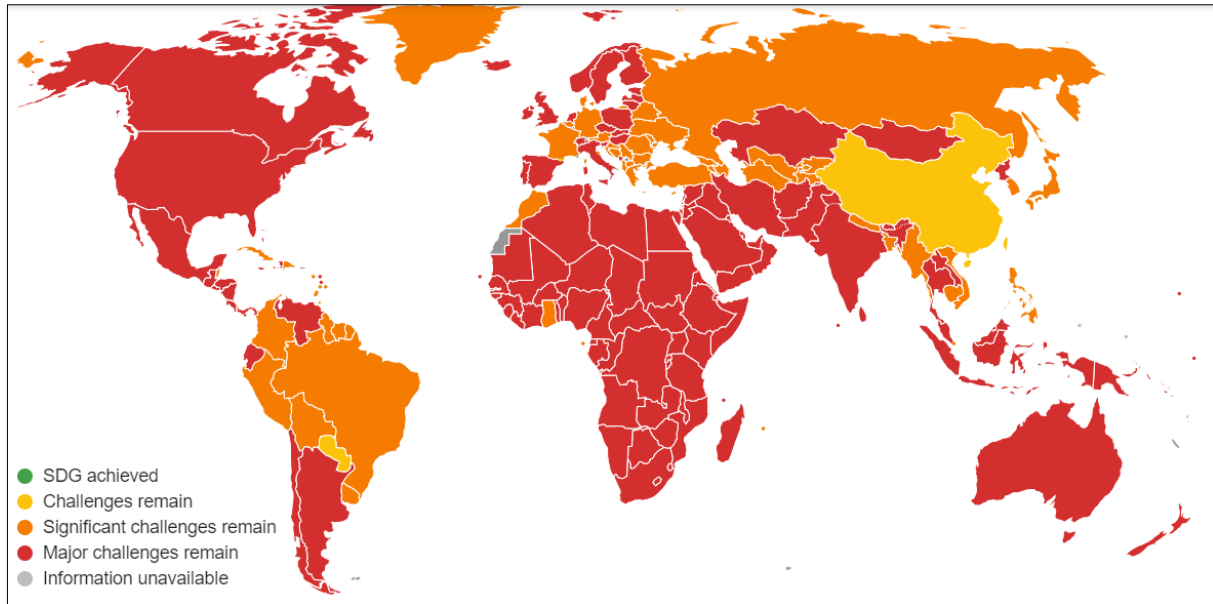


Figure 4. Global Performance in SDG2

Source: Sachs et al. 2023

Türkiye's trend is above the general average (Table 2). The data on the prevalence of malnutrition are up-to-date and promising. Nevertheless, the obesity rates in the adult population over 30 are considerably below the average, and precautions must be taken.

Table 2. Türkiye's Performance in SDG2 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Prevalence of undernourishment (%)	2,5	2020	●	↑
Prevalence of stunting in children under 5 years of age(%)	5,5	2022	●	↑
Prevalence of wasting in children under 5 years of age (%)	1,7	2018	●	↑
Prevalence of obesity (BMI ≥ 30) (% of adult population)	32,1	2016	●	↓
Cereal yield (tonnes per hectare of harvested land)	2,92	2021	●	→

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	→ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.3. SDG3: Good Health and Well-being

This development goal has 13 sub-goals and aims to ensure a healthy and quality life for all ages. It emphasizes that countries should try to minimize global maternal and neonatal mortality rates. The sub-targets cover many topics, such as epidemics, traffic accidents, drug use, and financial risks. Much progress is needed in Africa, Southwest Asia, and the northern regions of North America (Figure 5).

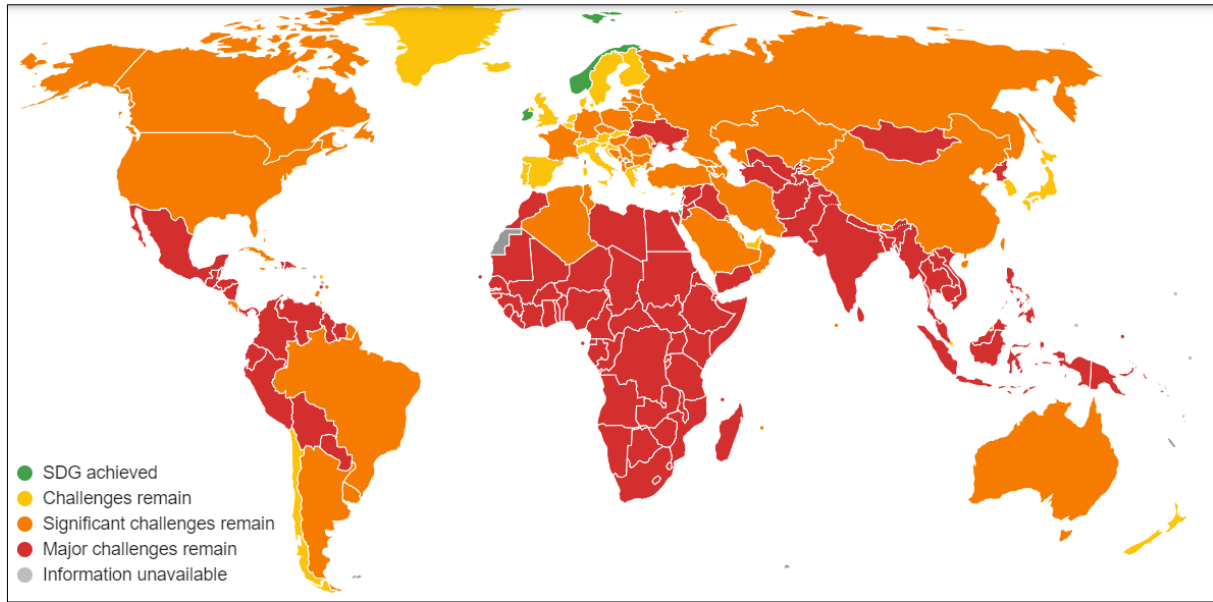


Figure 5. Global Performance in SDG3

Source: Sachs et al. 2023

Türkiye has a positive trend in maternal and neonatal mortality rates, infant mortality rates under five years of age, and mortality rates due to traffic accidents (Table 3). Türkiye has a long way to go regarding subjective well-being data, which are the most recent figures. Similarly, the fight against smoking above the age of 15 needs to continue.

Table 3. Türkiye's Performance in SDG3 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Maternal mortality rate (per 100,000 live births)	17,33	2020	●	↑
Neonatal mortality rate (per 1,000 live births)	4,72	2021	●	↑
Mortality rate (under-5) (per 1,000 live births)	8,98	2021	●	↑
Traffic deaths (per 100,000 population)	6,68	2019	●	↑
Life expectancy at birth (years)	78,6	2019	●	↑
Gap in life expectancy at birth among regions (years)	4,5	2019	●	↑
Adolescent fertility rate births (per 1,000 females aged 15 to 19)	14,7	2020	●	↑
Subjective well-being (average ladder score, worst 0-10 best)	5,1	2022	●	↓
Daily smokers (% of population aged 15 and over)	28,0	2019	●	↓

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	→ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.4. SDG4: Quality Education

The quality education chapter, prepared to ensure inclusive and equitable quality education and create lifelong learning opportunities for all layers of society, has ten sub-headings. By 2030, it aims to pave the way for all girls and boys to benefit from quality and equal access to all levels of education, from preschool to primary education and from secondary to university education. Positive discrimination practices are proposed for

disadvantaged groups such as persons with disabilities, indigenous peoples, and vulnerable children. While there are major problems in Africa, Southwest Asia, and South America, it should be emphasized that there are also problems in Europe, Australia, and North America (Figure 6).

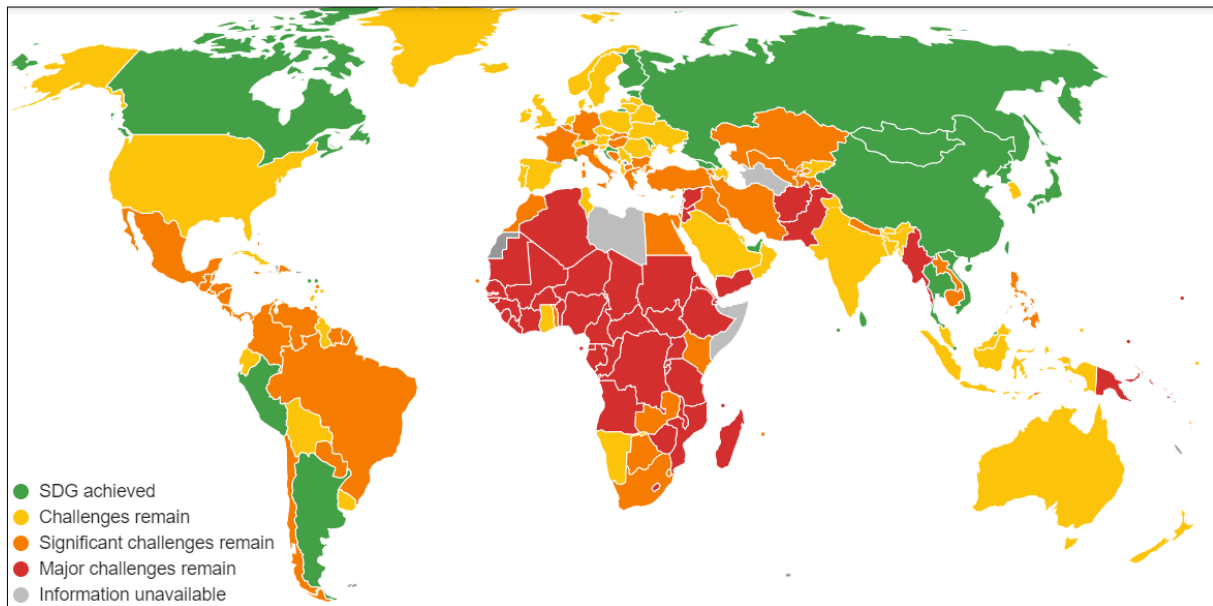


Figure 6. Türkiye's Performance in SDG4 for Selected Criteria (SDG Dashboard and Trends)

Source: Sachs et al. 2023

Although Türkiye is in a position to make progress in preschool education, it is in a much better position in primary and secondary education (Table 4). Efforts should be made to ensure that the positive trend in literacy rates is reflected in PISA scores. In addition, more steps need to be taken regarding lifelong learning.

Table 4. Quality Education (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Participation rate in pre-primary organized learning (% of children aged 4 to 6)	79,5	2020	●	↑
Net primary enrollment rate (%)	95,1	2020	●	↗
Lower secondary completion rate (%)	122,5	2020	●	↑
Literacy rate (% of population aged 15 to 24)	99,9	2019	●	↑
Tertiary educational attainment (% of population aged 25 to 34)	39,8	2020	●	↑
PISA score (worst 0-600 best)	462,7	2018	●	↑

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	→ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.5. SDG 5: Gender Equality

There are eight sub-targets under this heading to ensure gender equality and empower all women and girls. All forms of discrimination against women should be eliminated, and practices such as child marriage, early marriage, forced marriage, and female genital mutilation should be abandoned as soon as possible. The picture

is unfavorable in many parts of the world (Figure 7). Progress is needed in many parts of the world, particularly in Africa, Southwest Asia, and the Middle East.

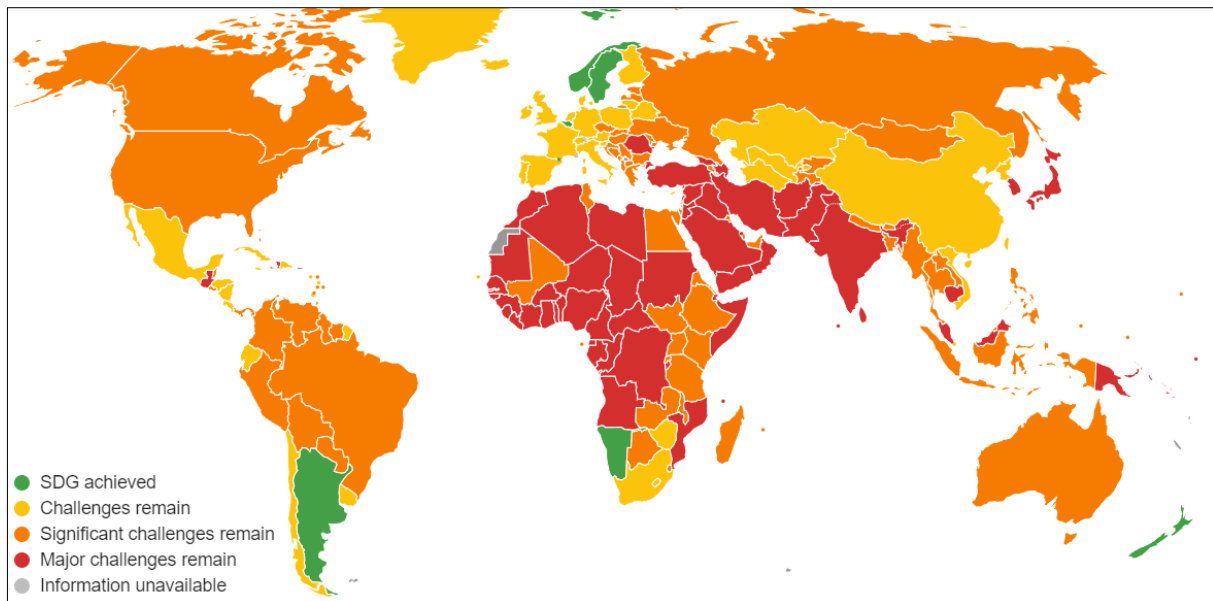


Figure 7: Global Performance in SDG5

Source: Sachs et al. 2023

Data from Türkiye show that the country lags behind the rest of the world regarding gender equality (Table 5). There is a large gap between women and men in terms of education and labor force participation. Similar indicators are evident in political representation, with a deficient representation of women in parliament. Türkiye's performance in applying modern methods in family planning is also far behind.

Table 5. Türkiye's Performance in SDG5 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Demand for family planning satisfied by modern methods (% of females aged 15 to 49)	60,2	2018	●	●
Ratio of female-to-male mean years of education received (%)	83,6	2021	●	➡
Ratio of female-to-male labor force participation rate (%)	48,0	2022	●	➡
Seats held by women in national parliament (%)	17,3	2021	●	➡
Gender wage gap (% of male median wage)	10,0	2018	●	●

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	➡ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.6. SDG6: Clean Water and Sanitation

There are eight sub-targets under this objective, which aims to ensure sustainable water management through accessible water and wastewater services for all. In a period when global climate change has a negative impact on the whole world, it is one of the most important environmental topics. By 2030, it is emphasized to pave the way for global and regional cooperation to ensure equitable access to drinking water worldwide. It is

underlined that all governments have significant duties to protect the entire ecosystem, such as mountains, forests, wetlands, and rivers. Except for North America and Central Europe, which are in a relatively better position, the world as a whole does not perform well concerning this objective (Figure 8).

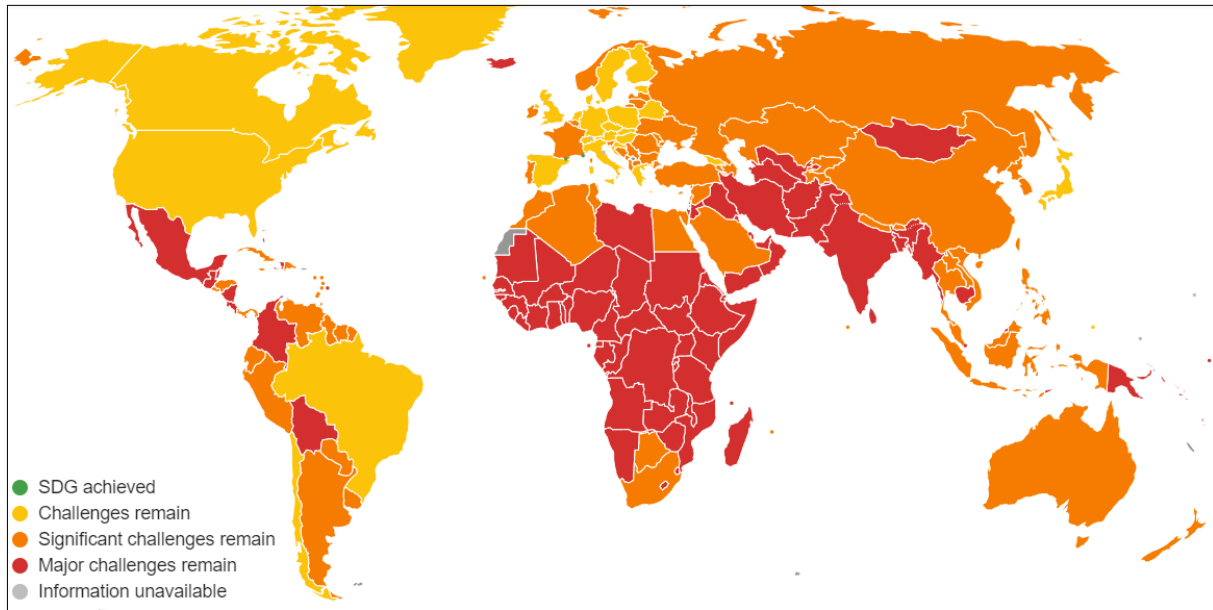


Figure 8. Global Performance in SDG6

Source: Sachs et al. 2023

While Türkiye is on a positive trend regarding the population using basic sanitation services, it must continue to strive to provide basic drinking water services (Table 6). In the long term, efforts are being made, but more needs to be done to reach the targets by 2030. Alarmed by freshwater withdrawals, Türkiye needs to take steps to treat anthropogenic wastewater as soon as possible.

Table 6. Türkiye's Performance in SDG6 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Population using at least basic drinking water services (%)	97,0	2020	●	↑
Population using at least basic sanitation services (%)	99,2	2020	●	↑
Freshwater withdrawal (% of available freshwater resources)	45,7	2019	●	●
Anthropogenic wastewater that receives treatment (%)	30,5	2020	●	●

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	→ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.7. SDG7: Affordable and Clean Energy

Among the sustainable development goals, the issue of accessible and clean energy under the environmental heading includes five sub-goals. It is set out to ensure access to affordable, reliable, sustainable, and modern energy for all. In order to spread renewable energy all over the world, strong cooperation is required. In this context, it is a necessity for developed and developing countries to cooperate. It has been underlined that, on

the one hand, infrastructure work should be carried out; on the other hand, efforts should be made to develop the existing technology. North and South America and Europe are well ahead of the rest of the world in this respect (Figure 9).

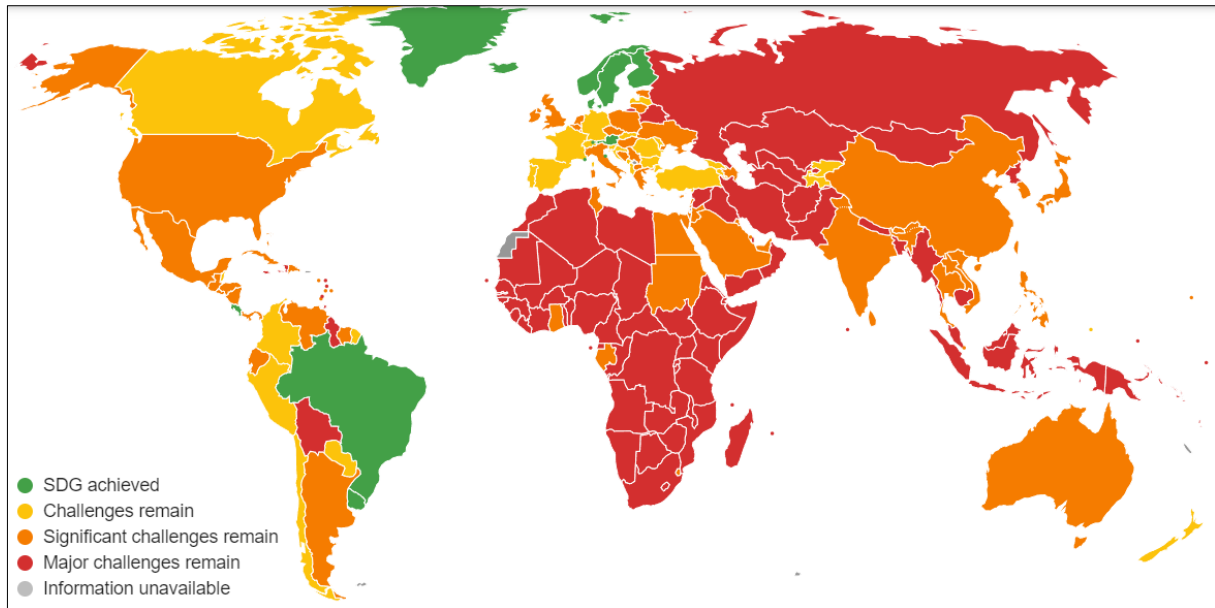


Figure 9. Global Performance in SDG7
Source: Sachs et al. 2023

Türkiye is on a successful trend as a country that has opened electricity access to its entire population (Table 7). Nevertheless, it constitutes a negative example in terms of the share of fossil fuels in total energy consumption. At the same time, updating some data that have not been published for a long time will enable more reliable comparisons.

Table 7. Türkiye's Performance in SDG7 for Selected Criteria (SDG Dashboard and Trends)

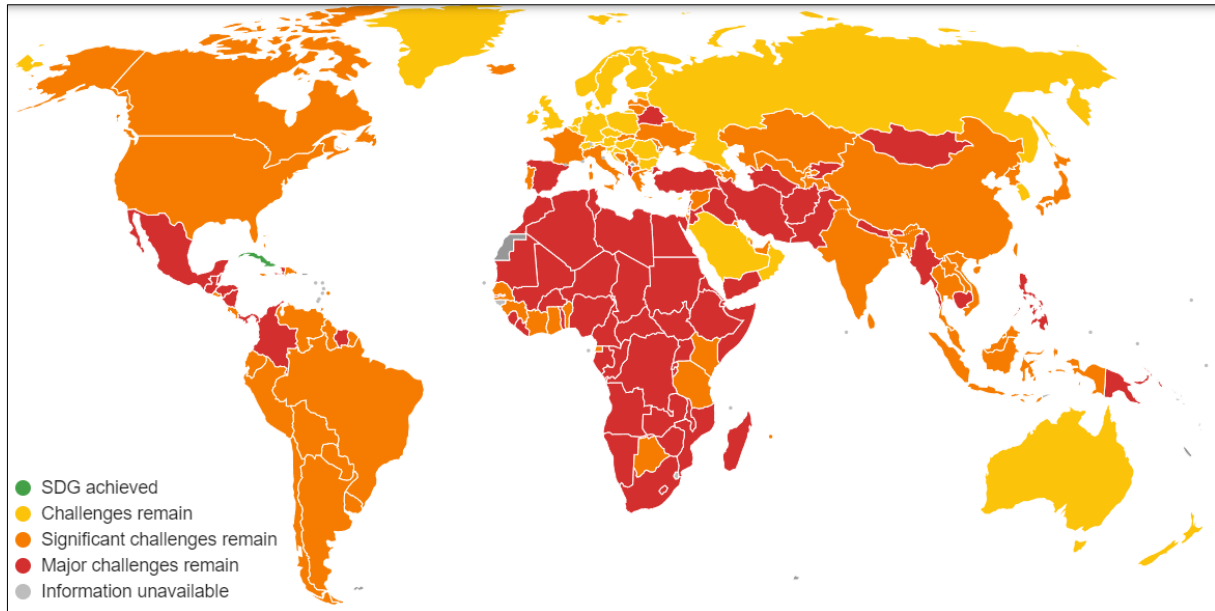
INDICATOR	VALUE	YEAR	DEGREE	TREND
Population with access to electricity (%)	100	2020	●	↑
Population with access to clean fuels and technology for cooking (%)	95,2	2020	●	↑
CO ₂ emissions from fuel combustion per total electricity output (MtCO ₂ /TWh)	1,3	2019	●	●
Renewable energy share in total final energy consumption (%)	14,1	2019	●	→

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	→ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.8. SDG8: Decent Work and Economic Growth

It includes 12 sub-targets to promote stable, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. As such, it imposes an extensive and comprehensive workload on states. Africa and Southwest Asia need a comprehensive roadmap (Figure 10).

**Figure 10.** Global Performance in SDG8

Source: Sachs et al. 2023

When we look at Türkiye's data, it is seen that Türkiye needs to improve in all indicators except fatal work accidents in imports. Employment figures stand out as the most concrete elements that need to be corrected. The most urgent problem among these figures is youth unemployment. However, as in all other headings, it is also vital to ensure medium and long-term healthy data input for this heading.

Table 8. Türkiye's Performance in SDG8 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Adjusted GDP growth (%)	-0,6	2021	●	●
Victims of modern slavery (per 1,000 population)	6,5	2018	●	●
Adults with an account at a bank or other financial institution or with a mobile-money-service provider (% of population aged 15 or over)	74,1	2021	●	↑
Fundamental labor rights are effectively guaranteed (worst 0–1 best)	0,4	2021	●	↓
Fatal work-related accidents embodied in imports (per 100,000 population)	0,05	2018	●	↑
Employment-to-population ratio (%)	50,3	2021	●	→
Youth not in employment, education or training (NEET) (% of population aged 15 to 29)	28,7	2021	●	→

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	→ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.9. SDG9: Industry, Innovation and Infrastructure

This heading, characterized as building resilient infrastructures, supporting inclusive and sustainable industrialization, and strengthening innovation, includes eight sub-targets. Global cooperation is another

important objective. While North and South America and Australia perform relatively well, this is not the case for Central Africa and Southwest Asia (Figure 11).

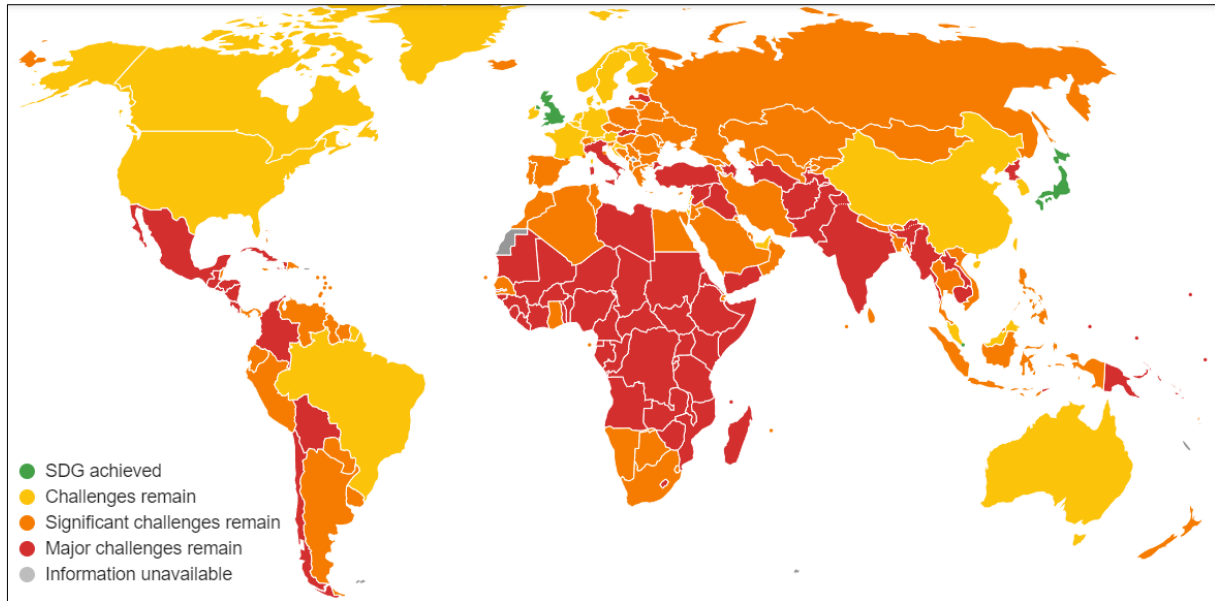


Figure 11. Global Performance in SDG9

Source: Sachs et al. 2023

This is one of the topics in which Türkiye has performed well (Table 9). Data ranging from the population using the Internet to mobile broadband subscriptions show a positive trend. Nevertheless, there is a need to increase research and development expenditures. In fact, the number of researchers, which has been rising for a long time, needs to continue its upward trend.

Table 9. Türkiye's Performance in SDG9 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Population using the internet (%)	81,4	2021	●	↑
Mobile broadband subscriptions (per 100 population)	82,6	2021	●	↑
Logistics Performance Index: Quality of trade and transport-related infrastructure (worst 1-5 best)	3,2	2018	●	↑
The Times Higher Education Universities Ranking: Average score of top 3 universities (worst 0-100 best)	40,5	2022	●	●
Articles published in academic journals (per 1,000 population)	0,7	2021	●	↑
Expenditure on research and development (% of GDP)	1,1	2021	●	↑
Researchers (per 1,000 employed population)	5,7	2020	●	↑
Triadic patent families filed (per million population)	0,8	2020	●	→
Female share of graduates from STEM fields at the tertiary level (%)	34,7	2014	●	●

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	→ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.10. SDG10: Reduced Inequalities

This heading, established to reduce inequalities within and between countries, consists of 10 sub-targets. Numerical targets have also been set. In this context, it is underlined that the income of the bottom 40 percent of the countries should be higher than the national average. In particular, social, economic, and political empowerment of all, regardless of age, gender, disability, race, ethnic origin, religion, economic or other status, is emphasized. Europe and Canada performed relatively favorably in this chapter, while North and South America and North Africa experienced problems (Figure 12).

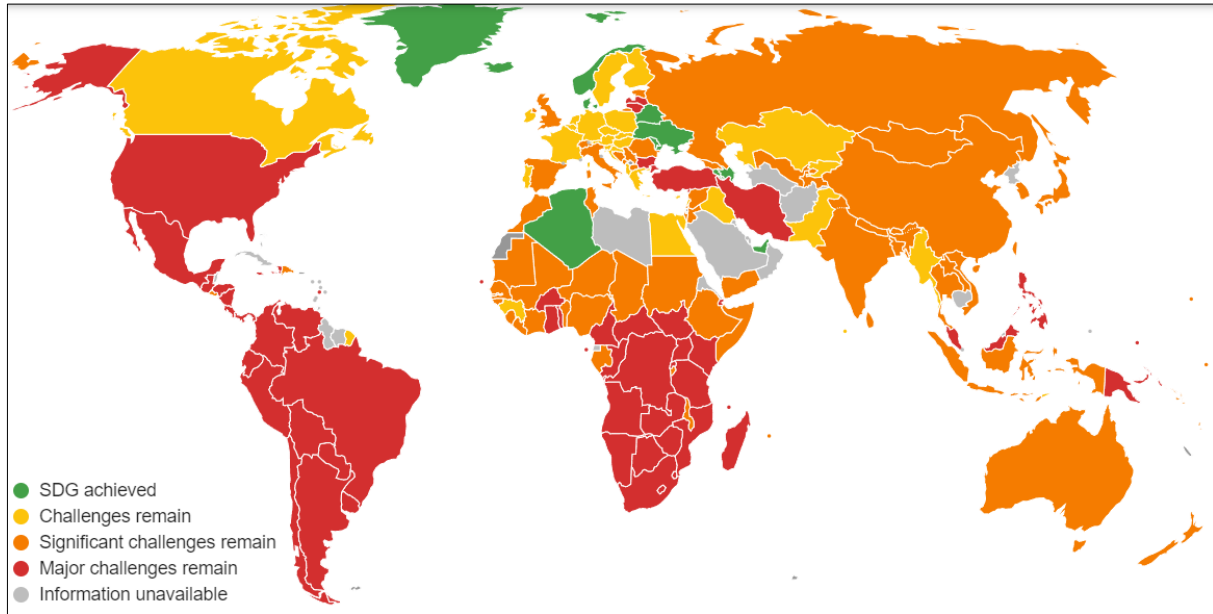


Figure 12. Global Performance in SDG10

Source: Sachs et al. 2023

Türkiye presents a negative picture under the heading of reducing inequalities (Table 10). In particular, the Gini coefficient, calculated to reveal income inequality statistically, is extremely low. The Palma ratio is also low, once again showing that Türkiye needs to make progress on inequalities. Nevertheless, it is observed that the elderly poverty rate is relatively favorable, and the trend is also in a positive direction.

Table 10. Türkiye's Performance in SDG10 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Gini coefficient	41,9	2019	●	→
Palma ratio	1,8	2018	●	↓
Elderly poverty rate (% of population aged 66 or over)	13,7	2019	●	↑

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	→ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.11. SDG11: Sustainable Cities and Communities

This heading includes ten sub-targets designed to make cities and human settlements inclusive, safe, resilient, and sustainable. Inclusive and sustainable urbanization requires the improvement of slum areas. In doing so, the vulnerable population should be protected, and cities should be improved with comprehensive infrastructure activities. It can be said that the world has performed relatively favorably. Nevertheless, as in many other chapters, Africa and Southwest Asia must make efforts (Figure 13).

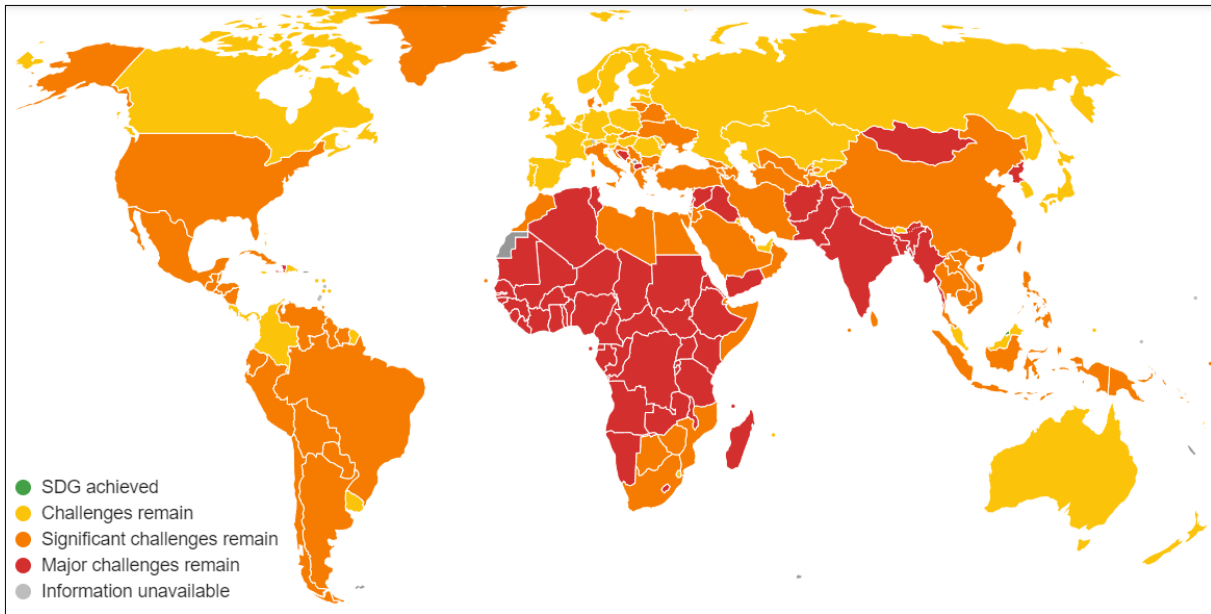


Figure 13. Global Performance in SDG11

Source: Sachs et al. 2023

Although Türkiye exhibits a positive performance and trend regarding access to improved water resources, it continues to suffer from the negative burden of squatting, a negative reflection of rapid and unplanned urbanization (Table 11). Another consequence of rapid urbanization is the low public satisfaction with public transport, which reveals that local governments need to make more effort. In addition, providing the same dissatisfied population with healthy and fast access to urban destinations will contribute to their well-being.

Table 11. Türkiye's Performance in SDG11 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Proportion of urban population living in slums (%)	14,1	2018	●	●
Annual mean concentration of particulate matter of less than 2.5 microns in diameter (PM2.5)	45,2	2019	●	➡
Access to improved water source, piped (% of urban population)	98,3	2020	●	⬆
Satisfaction with public transport	53,0	2022	●	⬇
Population with rent overburden	-	-	●	●

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
⬆ On track	➡ Moderately Increasing	➡ Stagnating	⬇ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.12. SDG12: Responsible Consumption and Production

This objective, designed to ensure sustainable production and consumption patterns, includes 11 sub-objectives. It is an extremely detailed and multi-faceted topic. Considering the data quantified in terms of material footprint per capita, it is seen that the non-industrialized regions of the world are more advantageous (Figure 14). In this sense, Africa and India are ahead of other regions in this heading. It is understood that the industrializing regions, especially Europe and North America, which are known as the industrialized regions, have a negative performance in this regard.

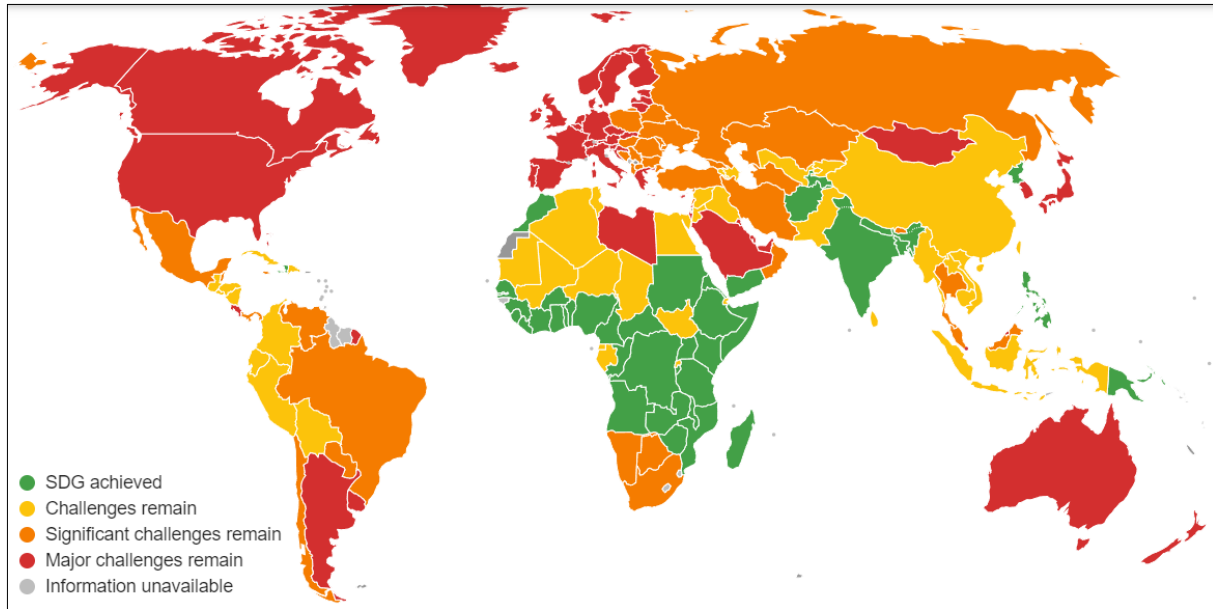


Figure 14. Türkiye's Performance in SDG12 for Selected Criteria (SDG Dashboard and Trends)

Source: Sachs et al. 2023

Türkiye is among the countries that need to make efforts in this area. Türkiye has a negative performance in electronic waste. Local administrations and the central government have a great responsibility because there are also measures to be taken regarding non-recyclable municipal waste. In addition, care should be taken to present medium and long-term data in a healthy manner.

Table 12. Türkiye's Performance in SDG12 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Electronic waste (kg/capita)	10,2	2019	●	●
Production-based SO ₂ emissions (kg/capita)	15,1	2018	●	●
SO ₂ emissions embodied in imports (kg/capita)	1,7	2018	●	●
Production-based nitrogen emissions (kg/capita)	33,7	2018	●	➡
Nitrogen emissions embodied in imports (kg/capita)	7,0	2018	●	⬆
Exports of plastic waste (kg/capita)	0,2	2021	●	⬆
Non-recycled municipal solid waste (kg/capita/day)	1,0	2020	●	⬆

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
⬆ On track	➡ Moderately Increasing	➡ Stagnating	⬇ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.13. SDG13: Climate Action

This heading, created to take urgent action to combat climate change and its impacts, consists of 5 sub-targets. What needs to be done on a global and national scale is summarized in a short but precise manner. International cooperation is most required under this heading. Relatively non-industrialized regions such as Africa and Southwest Asia are in a more advantageous position (Figure 15). Nevertheless, Europe, North America, North Asia, and Australia are the parts of the world where urgent action is needed.

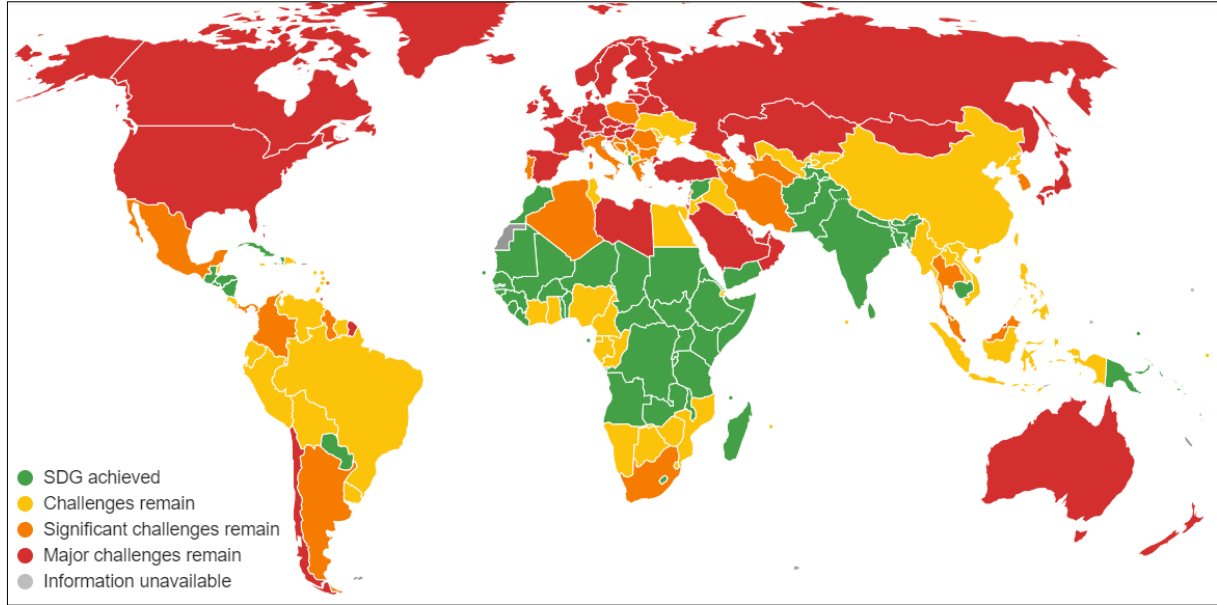


Figure 15. Global Performance in SDG13

Source: Sachs et al. 2023

Türkiye has a highly unfavorable performance due to carbon dioxide emissions from fossil fuels and cement production (Table 1). Unfortunately, the medium and long-term trend is also negative. Nevertheless, both fossil fuel consumption and imports are on a positive trend, and carbon emissions from fossil fuel exports are at an acceptable level. However, it would be beneficial for the government to take steps on carbon pricing. In addition, medium- and long-term healthy data input is crucial for this topic.

Table 13: Türkiye's Performance in SDG13 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
CO ₂ emissions from fossil fuel combustion and cement production (tCO ₂ /capita)	5,3	2021	●	↓
CO ₂ emissions embodied in imports (tCO ₂ /capita)	0,6	2018	●	↑
CO ₂ emissions embodied in fossil fuel exports (kg/capita)	1,3	2021	●	●
Carbon Pricing Score at EUR60/tCO ₂ (%; worst 0-100 best)	23,6	2018	●	→

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	→ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.14. SDG14: Life Below Water

This title, established to protect and sustainably use oceans, seas, and marine resources for sustainable development, consists of 10 sub-headings. Considering that two-thirds of the world is covered by water, the importance of this topic can be understood a little better. The world is not performing favorably in this regard (Figure 16). North America and the north and south of Asia have a long way to go in this chapter. Global cooperation is also needed for this topic, which is more relevant for countries bordering the ocean or any body of water.

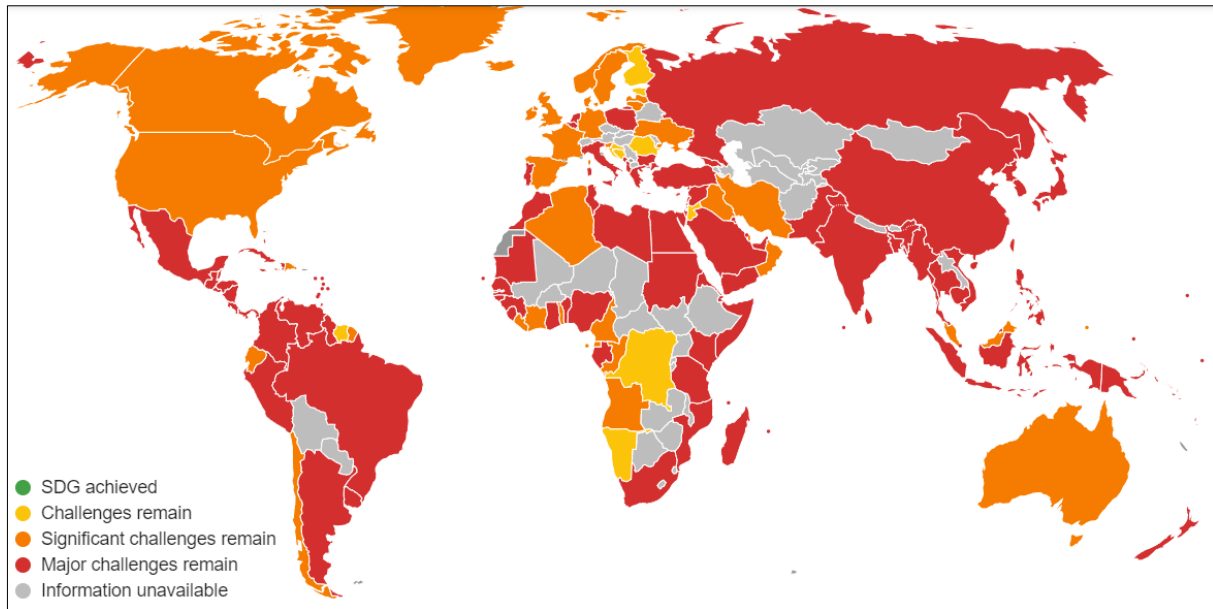


Figure 16: Global Performance in SDG14

Source: Sachs et al. 2023

As a country surrounded by seas on three sides, Türkiye is in a negative trend like many other countries worldwide. Unable to protect marine areas that are important for biodiversity, Türkiye has been experiencing this challenge for a long time. Although the clean water score is negative, it is in a positive trend in the long term. Nevertheless, the country's waters, which are in an extremely bad situation regarding fishing grounds, are dying due to practices such as trawling.

Table 14. Türkiye's Performance in SDG14 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Mean area that is protected in marine sites important to biodiversity (%)	3,9	2021	●	➡
Ocean Health Index: Clean Waters score (worst 0-100 best)	70,7	2022	●	⬆
Fish caught from overexploited or collapsed stocks (% of total catch)	57,5	2018	●	➡
Fish caught by trawling or dredging (%)	19,0	2019	●	⬆

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain	● Data not available
⬆ On track	➡ Moderately Increasing	➡ Stagnating	⬇ Decreasing	

Source: Sachs et al. 2023

3.15. SDG15: Life on Land

There are 12 sub-targets under this heading designed to protect, improve and promote sustainable use of terrestrial ecosystems; ensure sustainable forest management; combat desertification; halt and reverse land degradation; and prevent biodiversity loss. Protecting biodiversity and ecosystems is the most critical part of this chapter. The negative effects of global climate change also make this topic vital. The world's record on this objective is very poor (Figure 17). Only a few countries in Northern Europe have taken significant steps.

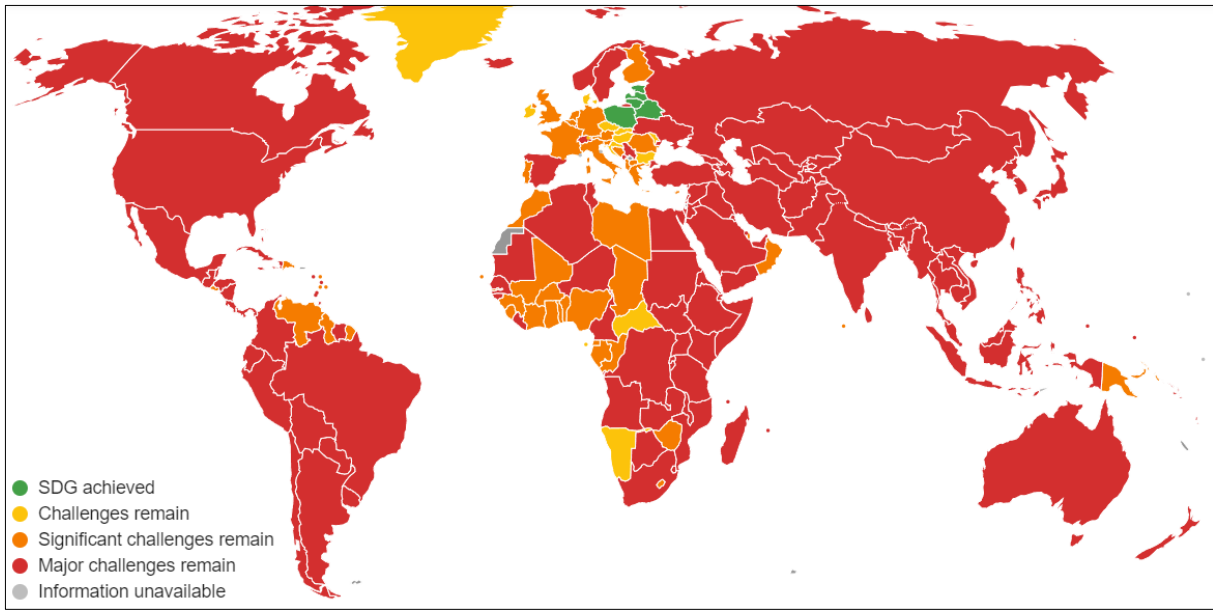


Figure 17. Global Performance in SDG15

Source: Sachs et al. 2023

Türkiye shows a positive trend in the conservation of biodiversity-important terrestrial areas and terrestrial freshwater areas (Table 15). On the red list of species survival, it is stagnant. Finally, although it has positive current data on permanent deforestation, the trend needs to be extended to the long term.

Table 15. Türkiye's Performance in SDG15 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Mean area that is protected in terrestrial sites important to biodiversity (%)	2,3	2022	●	➡
Mean area that is protected in freshwater sites important to biodiversity (%)	4,2	2022	●	➡
Red List Index of species survival (worst 0-1 best)	0,9	2023	●	➡
Permanent deforestation (% of forest area, 3-year average)	0,0	2021	●	➡

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	➡ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.16. SDG16: Peace, Justice and Strong Institutions

Designed to build peaceful and inclusive societies for sustainable development, ensure access to justice for all, and build effective, accountable, and inclusive institutions at all levels, this pillar comprises 12 sub-targets. National and global cooperation is needed to achieve sub-targets such as significantly reducing all forms of violence and violence-related mortality everywhere, ensuring the protection of vulnerable groups such as children, and transparent, accountable institutions. While there is relative positive momentum in Europe, Australia, and Canada, the picture in the rest of the world is bleak (Figure 18).

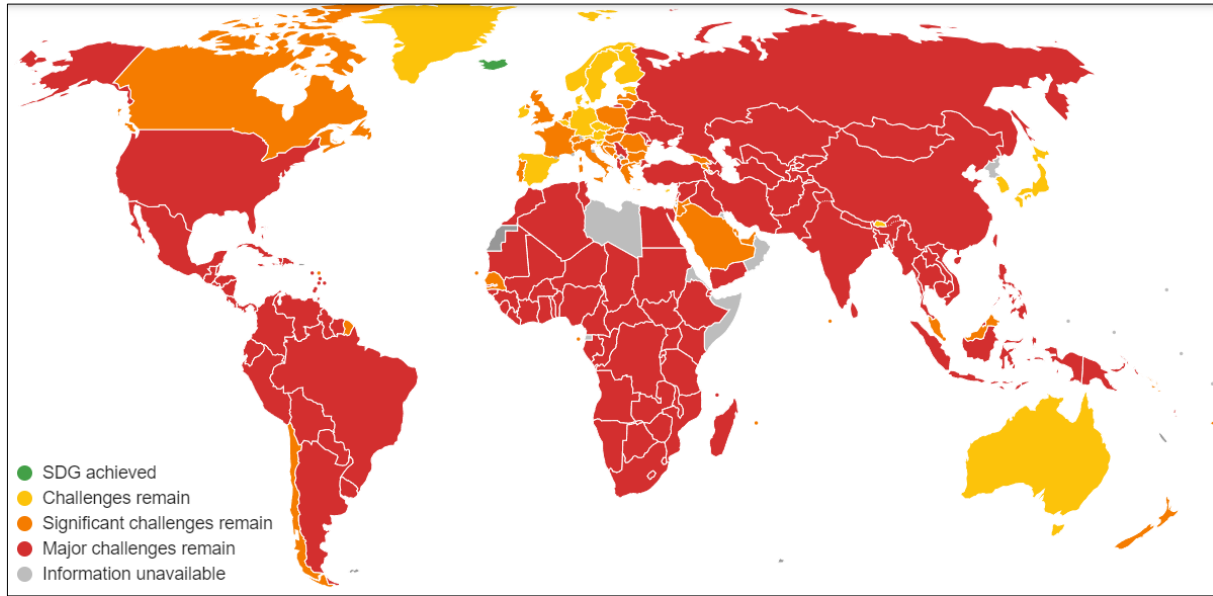


Figure 18. Global Performance in SDG16

Source: Sachs et al. 2023

Türkiye shows a negative performance in homicide rates, albeit with a downward trend (Table 16). Although the available data on the number of unconvicted prisoners appear favorable, the medium-term record is poor. The picture is also unfavorable in terms of corruption, freedom of the press, access to justice, and the number of people held in prison.

Table 16. Türkiye's Performance in SDG16 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Homicides (per 100,000 population)	2,5	2021	●	↗
Unsentenced detainees (% of prison population)	15,8	2020	●	→
Population who feel safe walking alone at night in the city or area where they live (%)	-	-	●	↓
Corruption Perceptions Index (worst 0-100 best)	36	2022	●	↓
Press Freedom Index (worst 0-100 best)	34,0	2023	●	↓
Access to and affordability of justice (worst 0–1 best)	0,6	2021	●	↑
Persons held in prison (per 100,000 population)	317,6	2020	●	↓

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	→ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

3.17. SDG17: Partnerships for the Goals

The last heading, designed to strengthen the means of implementation and revitalize the global partnership for sustainable development, reminds us that cooperation is needed to achieve sustainable development goals at home and abroad. With 19 sub-targets, the performance of the countries under this heading shows that the desired goal has not been reached (Figure 19).

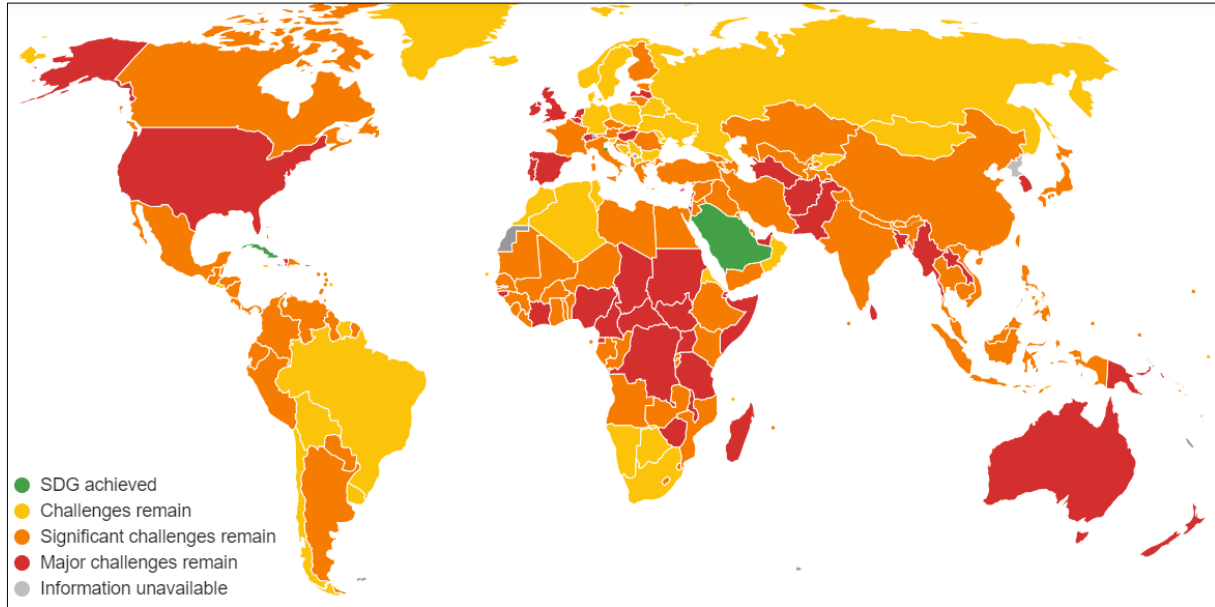


Figure 19. Global Performance in SDG17

Source: Sachs et al. 2023

Türkiye has recently declined public spending on health and education (Table 17). The financial secrecy score also shows a negative trend. Nevertheless, the dividends of multinational companies continue to increase, and the statistical performance index has been on a slight upward trend for a long time.

Table 17. Türkiye's Performance in SDG17 for Selected Criteria (SDG Dashboard and Trends)

INDICATOR	VALUE	YEAR	DEGREE	TREND
Government spending on health and education (% of GDP)	7,0	2020	●	↓
Other countries: Government revenue excluding grants (% of GDP)	30,4	2020	●	→
Financial Secrecy Score (best 0-100 worst)	61,1	2022	●	↗
Shifted profits of multinationals (US\$ billion)	5,7	2019	●	↑
Statistical Performance Index (worst 0-100 best)	87,7	2022	●	↑

● SDG achievement	● Challenges remain	● Significant challenges remain	● Major challenges remain
↑ On track	↗ Moderately Increasing	→ Stagnating	↓ Decreasing
			● Data not available

Source: Sachs et al. 2023

4. Conclusion and Recommendations

Türkiye, as it celebrated the centennial of its Republic, faces a critical moment in its pursuit of sustainable development. The Sustainable Development Goals (SDGs) provide a comprehensive roadmap for assessing and improving the country's economic, social, and environmental performance. This study, based on the 2023 Sustainable Development Report, evaluates Türkiye's progress across all 17 SDGs, highlighting both achievements and areas requiring urgent attention. While notable improvements have been observed in certain areas, such as Industry, Innovation, and Infrastructure (SDG 9) and Life Below Water (SDG 14), significant challenges persist in others, particularly Gender Equality (SDG 5), Decent Work and Economic Growth (SDG 8), Reduced Inequalities (SDG 10), Climate Action (SDG 13), Life on Land (SDG 15), and Peace, Justice, and Strong Institutions (SDG 16). These ongoing challenges indicate that existing policies need to be revised, strengthened, and better aligned with long-term sustainability objectives.

Among the most pressing concerns, gender inequality remains a significant barrier to achieving inclusive development, with disparities in education, employment, and political representation requiring urgent policy interventions. Similarly, economic challenges, including high youth unemployment and persistent income inequality, necessitate targeted strategies to create sustainable and inclusive job opportunities. Climate change represents another critical area where Türkiye must take decisive action, particularly by reducing its dependence on fossil fuels, increasing renewable energy investments, and implementing stricter carbon regulations. Environmental sustainability remains a major concern, with continued deforestation, biodiversity loss, and inadequate conservation efforts threatening the country's natural ecosystems.

Despite these challenges, Türkiye has made significant progress in several key areas. The country has been successful in reducing extreme poverty, with less than 1% of the population living on less than \$2.15 per day. Access to electricity is nearly universal, and advancements in digital connectivity indicate positive trends in technological development. Urban infrastructure and public transportation systems have also improved, although further efforts are needed to address housing challenges and ensure more sustainable urban planning. In the field of industrial innovation, increasing investments in research and development have contributed to technological progress, yet there remains a need to enhance further Türkiye's capacity for innovation and knowledge-based economic growth.

To accelerate progress toward the SDGs, several strategic measures should be prioritized. Environmental policies must be redefined to include stronger commitments to climate action, conservation, and sustainable resource management. Increasing the share of renewable energy in the national energy mix will not only support environmental sustainability but also provide long-term economic benefits. Economic and social inclusion should be promoted through gender-sensitive labor policies, equal pay legislation, and support for entrepreneurship. In the education sector, investments in lifelong learning, vocational training, and digital skills development will help equip the workforce with the necessary competencies to thrive in a rapidly evolving global economy.

Türkiye's ability to meet the 2030 targets will depend on the proactive implementation of these policies, alongside strong collaboration between the government, private sector, civil society, and academia. Ensuring accurate and comprehensive data collection will also be crucial for tracking progress and making informed policy decisions. As Türkiye enters its second century, integrating sustainability into its national development strategies will be key to fostering long-term economic resilience, social well-being, and environmental protection. By embracing a forward-looking approach and committing to sustainable growth, Türkiye has the

potential to emerge as a regional leader in sustainable development and contribute meaningfully to global sustainability efforts.

Declaration of Conflict of Interest and Contribution: The authors declare no conflict of interest. The contribution rate distribution is as follows: 40% for the first author, 30% for the second author, and 30% for the third author.

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