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Where do we stand on the 17 Sustainable Development Goals? An overview on progress

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ABSTRACT

Sustainable development is a part of every recent global agenda; the world has been trying to establish a more sustainable path and various goals and targets have been set to achieve this. The 17 Sustainable Development Goals (SDGs), introduced by the United Nations in 2015, aim to tackle economic, social and environmental issues that plague the world and to promote the concept of sustainability. This paper provides a comprehensive literature review regarding each SDG, the problem that each one addresses and why it is important to tackle it. Recent data regarding various targets are provided and compared to previous years, while a trend analysis is carried out to evaluate global progress and in different world regions. Based on UN estimations, an evaluation is extracted of each SDG's progress and those areas where attention is needed are identified. These assessments reveal that economy-related targets, such as targets included in the 8th SDG (decent work and economic growth), the 9th (industry, innovation and infrastructure) and 12th SDG (responsible consumption and production) are close to being achieved, while acceleration is needed in order to achieve targets and goals regarding education (4th SDG), cities and communities' sustainability (11th SDG) and in particular climate change (13th SDG).

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1. Introduction

Sustainable development is defined as the “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*”. This definition was established in the 1987 United Nations' publication “Our Common Future”, also known as the Brundtland Report, and is now widely used to define the modern concept of sustainability (WCED, 1987).

Based on these definitions, sustainable development focuses on environmental protection, while providing economic and social development and welfare to present and future generations (Hansmann et al., 2012). Therefore, the three interrelated concepts of sustainable development – or the main three pillars – are: social sustainability, economic sustainability and environmental sustainability (Purvis et al., 2018). It is understood that natural, human and economic capital should all be taken into consideration in each action or decision, in order to achieve responsible and sustainable development (Hansmann et al., 2012).

Over the past few decades, the concept of sustainability has attracted worldwide attention and has been extensively discussed by policy makers and decision makers, academics and experts. Sustainable development is now a part of almost

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Fig. 1. Sustainable Development Goals.²
Source: United Nations (2015b).

all political agendas in which a variety of goals and targets have been set in order to make the world a more sustainable place for everyone.

The Millennium Summit that took place in New York City in 2000 led to the adoption of the United Nations Millennium Declaration which aimed to create an international partnership in order to reduce global levels of extreme poverty. A set of 8 goals was introduced, known as the 8 **Millennium Development Goals** (MDGs) addressing various social, economic and environmental problems (Fig. 2). Member-states, as well as other organizations, undertook to a number of actions in order to assist the achievement of the 8 Goals by 2015.

The evaluation report of the MDGs in 2015 (United Nations, 2015a) showed that significant results have been achieved over these 15 years: the number of people living in conditions of extreme poverty (with income that is less than \$1.25/day) was reduced by more than half as was the number of undernourished people in developing countries. According to the World Health Organization, undernutrition includes, inter alia, stunting, restrictions in fetal growth, vitamin A and zinc deficiencies (World Health Organization, 2018). The enrollment rate in primary schools was significantly increased, as well as the number of girls enrolled in school. More people had access to better water sources, the rates of under-five mortality and maternal mortality were decreased and remarkable achievements were made fighting diseases such as HIV/AIDS, malaria and tuberculosis.

Thus, important problems such as poverty, human health and mortality were addressed through a number of the MDGs. Nevertheless, the world still faces severe problems and challenges. The 17 SDGs are at the core of the 2030 Agenda for Sustainable Development that the United Nations Member States adopted in 2015. This agenda aims to create a global partnership in order to tackle social, economic and environmental problems and promote sustainable development. By 2030, planned strategies will have to be undertaken and implemented regarding the issues of people and prosperity, the planet and partnership and peace, as a means to create a more sustainable world (Fig. 1) (United Nations, 2015b).

The SDGs evolved from the MDGs, addressing all the unfinished goals and took into consideration additional challenges, while benefiting from the knowledge gained during the implementation of the MDGs (Kumar et al., 2016). According to Fukuda-Parr (2016), the SDGs are different from the MDGs in terms of purpose, conception and politics. The MDGs focused mainly on developing countries and on the issue of poverty, while the SDGs are a global initiative focusing on sustainable development. The SDGs cover a broader context and more aspects of sustainable development, since they include further goals and targets (Fukuda-Parr, 2016) while focusing on the aspects of human development and human rights, that were not included in the MDGs (Kumar et al., 2016). Finally, the SDGs are regarded as better integrating the three pillars of sustainable development and thereby lead to systemic changes which create a more sustainable future (Costanza et al., 2016).

This paper focuses on the 17 SDGs included in the United Nations' 2030 Agenda for Sustainable Development that was adopted in 2015. Our paper aims to examine each one of the 17 goals in detail, assess their importance and contribution to sustainability and indicate the extent to which the evolution of key indicators represents progress made in achieving these targets.

2. Sustainable Development Goals: overview and progress

The 17 SDGs consist of 169 targets. Currently, there are 1221 publications relating to these SDGs, 1034 events organized and 5285 actions taken related to these 17 goals (United Nations, 2015b).

² Illustrations of the goals have been retrieved from the United Nations site (2015b) for informational (academic) reasons only. Guidelines for their usage can be found at: https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/01/SDG_Guidelines_AUG_2019_Final.pdf.



Fig. 2. Millennium Development Goals.
Source: United Nations (2015c).

In this paper, each one of the 17 SDGs will be presented, based on the information provided by the United Nations (2015b). A small review will analyze the problems addressed by each goal and highlight the significance of tackling them. In addition, data will be presented regarding the key elements and objectives of each goal. This data will inform the current global situation and progress made in these areas. The mean trend is extracted, based on the available time series and which captures the mean change that has taken place in each region (red brackets).

Goal 1: No poverty

Poverty is one of the most severe problems in the world. It is a multi-dimensional phenomenon, that can threaten the development of society, as well as humans' health and welfare (Raphael, 2013). Despite the fact that poverty significantly affects many areas in the world, it is still difficult to define and measure. In the literature, poverty is described as a low welfare situation, where people cannot sufficiently satisfy their needs (Hagenaars, 2014).

According to Ahmed et al. (2007), a division can be made regarding the people living with less than approximately \$1/day, that can indicate the poverty depth (1993 PPP exchange rates):

- Ultra poverty: < \$0.54/day
- Medial poverty: \$0.54 - \$0.81/day
- Subjacent poverty: \$0.81 - \$1.08/day

It is important to identify the drivers that lead to or worsen poverty conditions, in order to develop an effective plan for its eradication. These factors differ from place to place. For instance, some of the key drivers of poverty in Sub-Saharan Africa, one of the regions with the highest rates of poverty, include, among other things, high income inequality, institutionalized democracy and civil war episodes, dependence on oil and high prevalence of HIV (Anyanwu and Anyanwu, 2017).

The eradication of poverty is an important challenge for the world, especially for certain countries that still have to deal with unacceptable conditions of poverty. SDG 1 aims to end poverty in all of the globe's regions in all forms and taking into consideration the international poverty line, as well as the national poverty lines that have been established. It also focuses on the increase of social protection for all, especially for the poor and vulnerable, as well as on the access to basic services and economic resources. Additionally, it takes into consideration the exposure to climate-related events and aims to build resilience to all kinds of environmental and socio-economic shocks and disasters.

Target 1.1 refers to the eradication of poverty in the world, using the \$1.25/day standard as an indication of poverty. The World Bank set this value as the international poverty line in 2008 until 2015 when the higher value of \$1.90 was adopted (2011 PPP), thus updating the international poverty line that captures the differences that exist among countries regarding living costs (World Bank, 2015). In addition, target 1.2 refers to the eradication of poverty, based on the national poverty lines that each country has set. According to the World Bank (2020), "national poverty lines are the benchmark for estimating poverty indicators that are consistent with the country's specific economic and social circumstances".

The percentage of population living with under \$1.90/day in the world fell from 42.5% in 1981 to 27.7% in 2000 and to 9.2% in 2017. The countries of Sub-Saharan Africa are the ones with the highest percentages of people living under

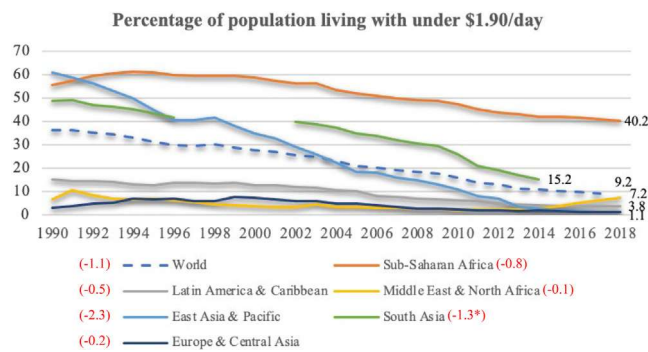


Fig. 3. Poverty headcount ratio at \$1.90 a day (2011 PPP) (% of population).³

the international poverty line (40.2% of population in 2018), while in Europe and Central Asia these percentages are significantly lower. Even though data was not available for North America as a whole, both Canada and the United States had also significantly low percentages (0.2% in 2017 and 1% in 2016 respectively). Overall, these percentages have dropped throughout the world, since 1990 with the exception of the Middle East and North Africa, where the number of people living under \$1.90/day has been increasing since 2014. Red parentheses in each figure indicate the mean trend in Fig. 3 (World Bank, 2020).

Regarding the national poverty lines, the World Bank does not provide data for all the world combined. Based on the data provided for each country separately, we can conclude that African countries still face the highest percentages of people living under the national poverty lines. In addition, the percentages of people living below the national poverty lines that each European country has independently set are higher than the percentages of people living below the international poverty line (\$1.90/day). For instance, in France in 2017, the previously mentioned percentages were 13.4% and 0% respectively, while in Italy, they were 20.3% and 1.4% respectively for the same year (World Bank, 2020).

The International Labour Organization database provides data on target 1.3 regarding social protection systems. These data indicate that more than 70% of the population in North American countries, European countries, certain Central Asian countries, as well as in Australia were all covered by at least one social protection benefit. In contrast, this percentage was lower than 20% in most African countries, while the percentages of Latin American countries ranged from 30% to 65%, based on data for the latest years available. Specifically, for 2019, 100% of population were covered by at least one social protection benefit in Australia and New Zealand, Singapore, Kazakhstan and Mongolia, based on the available data. The lowest percentages for the same year were observed in Cambodia (6.2%), Myanmar (6.3%), Afghanistan (7.5%), Pakistan (8%) and Philippines (9.6%) (Ilostat, 2020).

According to the SDG Progress Chart 2020, a fair degree of progress has been made globally in extreme poverty eradication, although acceleration is needed. Both extreme poverty eradication and the achievement of substantial social protection coverage are found to be at a moderate distance from the final targets. The regions that are very far from the targets' achievement are Sub-Saharan Africa and Central and Southern Asia, while all developed countries⁴ have met or almost met the targets (United Nations, 2020a).

Goal 2: Zero hunger

One of the basic and fundamental human rights is to have access to safe and nutritious food in adequate amounts (Struble and Aomari, 2003). The “condition in which people lack the basic food intake to provide them with the energy and nutrients for fully productive, active lives”, is defined as hunger, while malnutrition is the result of “the interaction of inadequate diet and infection, reflected in poor infant growth and an excess of morbidity and mortality in adults and children alike” (Hunger Task Force, 2003).

In order to measure hunger, the availability and access to food, as well as the intake of calories, based on the person's sex, age and daily activity are taken into consideration (Behrman et al., 2004). Since direct estimates do not exist regarding the extent of hunger, the measure that is often used in the literature is the indicator *Prevalence of undernourishment*, as estimated by the FAO (Hoddinott et al., 2012).

Hunger and malnutrition can cause a series of health problems, since they can change a person's body structure or metabolism and lead to chronic diseases in the future (Behrman et al., 2004). More specifically, malnutrition can lead, among other things, to a reduction of body mass, faltering of growth, low body weight, to a weakened immune system, a higher risk of infection as well as to more severe infectious diseases. In addition, it can cause blindness, mental problems or other disabilities that the person will not be able to recover from and even cause premature death (Wiesmann et al., 2000).

³ Figs. 3, 6–20, 20–23, 26–28 & 30–33 were created based on data retrieved from the World Bank (2020). * With reservations, due to missing data and the performed extrapolation.

⁴ Developed countries include Europe, North America, Australia and New Zealand (United Nations, 2020a,b).

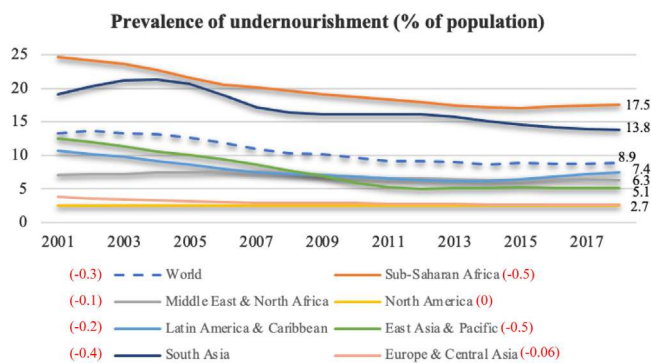


Fig. 4. Prevalence of undernourishment (% of population),⁵

The 2nd SDG aims to end hunger and malnutrition and to achieve food security. It focuses on providing access to safe, nutritious and sufficient food for all, especially for the poor and vulnerable and on the prevention of undernourishment and stunting, especially among children. In addition, sustainable food production and the implementation of resilient agricultural practices are promoted, agricultural productivity is fostered as well as boosting small-scale food producers' income.

Target 2.1 aims to end hunger and prevent undernourishment. Based on FAO data (2020), the percentage of undernourished population in the world was 8.9% in 2018, having significantly dropped since 2001 (13.3%). These percentages were higher in Sub-Saharan Africa in the period since 2001 which was also evident for the South Asian region. Overall, the situation of undernourishment seems to have improved since the beginning of the century (Fig. 4) (FAO, 2020b).

The FAO provides data regarding the second indicator of target 2.1 which concerns the prevalence of moderate or severe food insecurity in the population for the years 2015–2018. Food insecurity refers to the situation where people do not have “access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (Hunger Task Force, 2003). Since climate change is a factor that can worsen agricultural productivity, smallholder farmers that adapt to climate change can significantly contribute to the 2nd SDG (Khanal et al., 2020). According to the FAO (2020a), in 2018, 25.8% of world's population faced problems of moderate or severe food insecurity. This refers to the people that were exposed to low quality nutrition or to a reduced quantity of food due to lack of money or the lack of other resources. The highest percentages were observed in Sub-Saharan Africa, where 54.9% had food insecurity problems, while high percentages were observed in South Asia, Latin America and the Middle East and North Africa. Overall, despite the aims of the 2nd SDG, the problem of food insecurity increased in the world from 2015 to 2018 (Fig. 5) (FAO, 2020a).

According to the SDG Progress Chart 2020, a deterioration has been observed regarding the access to safe, nutritious and sufficient food for all, with the world being at a moderate distance from the final target. Developed countries are close to the target with limited or no progress being made, while Sub-Saharan Africa was very far from the target and a deterioration was observed. Regarding the goal of reducing the number of stunted children under 5 years by 40% (compared to 2012), the world is far from the target. Even though overall a fair level of progress was made, acceleration is needed, while Sub-Saharan Africa, Central and Southern Asia and the Pacific Island countries are still very far from the target (United Nations, 2020a).

Goal 3: Good health and well-being

Health is defined as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1946). Well-being is a concept that does not have a specific and universally accepted definition (McGillivray and Clarke, 2006). However, in the literature, it has been identified as being related to the concept of happiness, wellness and good health – both physical and mental (Tov, 2018). The term is also used to refer to every aspect of life that is well-evaluated (Gasper, 2007).

Ensured health and well-being is vital for every person in the world, at every age and stage of life. Good health is considered necessary in order to achieve high levels in every aspect of well-being (Salomon et al., 2003). Significant health inequalities do exist and the levels of health that people enjoy vary depending on a person's background, the social group they belong to and the country in which they reside (Arcaya et al., 2015). Poverty is also a factor that leads to health problems and reduced well-being – two concepts which are inextricably linked (Murray, 2006).

The 3rd SDG aims to ensure health and well-being for everyone and for all ages. Significant health issues are addressed, including maternal, child and neonatal health and mortality, epidemics and diseases (AIDS, tuberculosis, malaria, hepatitis, etc.), non-communicable diseases and mental health. Also, the goal focuses on the prevention of substance abuse (narcotic drug abuse and alcohol), injuries and deaths from road traffic accidents and deaths and illnesses from hazardous chemicals and pollution or contamination. In addition, the 3rd SDG promotes access to sexual and reproductive health care services and universal health coverage including access to safe, effective and affordable medicines and vaccines.

⁵ Figs. 4 and 5 were created based on data retrieved from FAO (2020a,b).

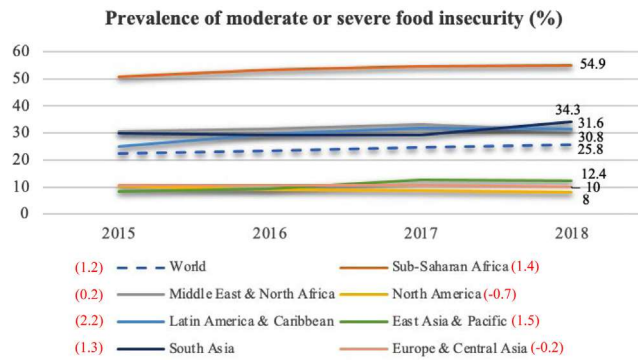


Fig. 5. Prevalence of moderate or severe food insecurity in the population (%).

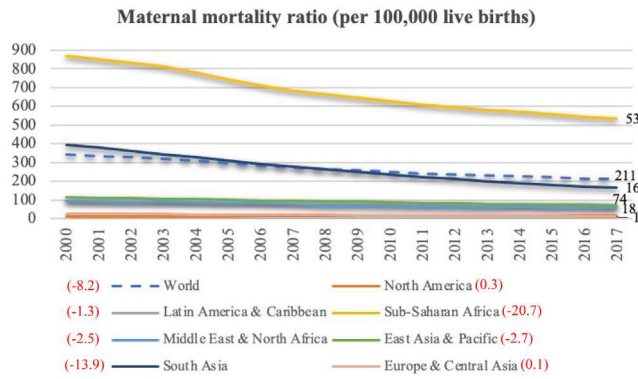


Fig. 6. Maternal mortality ratio (modeled estimate, per 100,000 live births).

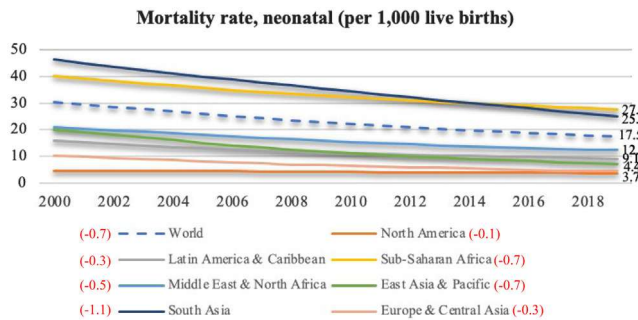


Fig. 7. Mortality rate, neonatal (per 1000 live births).

The reduction of the maternal mortality ratio is included as a target (3.1) of the 3rd SDG. Based on WHO data retrieved from the World Bank database, in Sub-Saharan Africa the maternal mortality ratio was 534 in 2017 (per 100,000 live births), compared to the world's total maternal mortality ratio of 211. For the same year, every other region in the world had significantly lower ratios. But since the target set in the 3rd SDG aims to reduce this ratio to less than 70 per 100,000 live births, improvements are nevertheless required in South Asia and Latin America and the Caribbean despite the fact that their rates are lower than the world's average. Overall, while the maternal mortality ratio has been reduced since the beginning of the century, it is important to focus on the need for future improvement to this ratio (Fig. 6) (World Bank, 2020).

Target 3.2 refers to the reduction of the neonatal mortality rate. The World Bank database provides estimates developed by the UN Inter-agency Group for Child Mortality Estimation regarding the number of deaths of newborns that have not reached 28 days of age per 1000 live births. Globally, the mortality rate for 2019 was 17.5. The highest rates were observed in Sub-Saharan Africa and South Asia (27.5 and 25.1 respectively), while the rates were lower than the world average in every other region. Overall, neonatal mortality rates have significantly dropped since the beginning of the century, but

the goal is to reduce this rate to less than 12 per 1000 live births, requiring more attention and efforts, especially from regions with the highest rates (Fig. 7) (World Bank, 2020).

Focusing on target 3.3 which refers to eradicating diseases such as AIDS, malaria and tuberculosis, it is important to acknowledge that considerable progress has been made. For instance, the global incidence of HIV in those aged 15–49 years was estimated at 0.7 per 1000 of population in 2000, 0.5 in 2010 and 0.4 in 2019, based on UNAIDS estimates retrieved from the World Bank database. In Sub-Saharan Africa, where the highest incidence was observed, notable progress was made with the level falling from 5.1 per 1000 of population in 2000, to 3.1 in 2010 and 1.6 in 2019. This shows remarkable progress in achieving target 3.3 (World Bank, 2020).

Regarding the target of reducing the number of global deaths from road traffic accidents (target 3.6), it can be concluded based on WHO data retrieved from the World Bank database, that the global situation has not improved with the level of mortality caused by road traffic injury of 17.4 per 100,000 people in 2013 rising to 18.1 in 2016. This rate was higher in Sub-Saharan Africa, while significantly higher rates were also observed in the Middle Eastern and North African region, as well as in Latin American and the Caribbean region (World Bank, 2020).

Target 3.7 sets a goal of reducing adolescent fertility rates. Based on the World Bank database regarding births given by women aged 15–19 years, the world's rate was estimated at 42 per 1000 women in 2018. However, the Sub-Saharan African, Latin American and the Caribbean regions were above the world's average (101.2 and 62.1 per 1000 respectively). This is despite the notable reductions that were observed since 2000 in these regions. In 2000, the adolescent fertility rate in Sub-Saharan Africa was 128.3 and in Latin America and the Caribbean 82.6 per 1000. A notable reduction was also observed in South Asia (from 71.9 in 2000 to 24.5 in 2018) and North America (from 43.4 in 2000 to 17.6 per 1000 in 2018). The world's overall rate has reduced since 2000, when it was estimated at 56.3 per 1000 women, but improvements are still required in this area (World Bank, 2020).

Target 3.9 sets a goal of reducing the mortality rate attributed to household and ambient air pollution. The data provided by the WHO (retrieved from the World Bank) only refer to the year 2016, when world's mortality rate was estimated at 114.2 per 100,000 population. Sub-Saharan Africa had, once more, the highest mortality rate (187.1), while South Asia (179.3) and East Asia and the Pacific (105) followed with significant rates (World Bank, 2020).

According to the SDG Progress Chart 2020, the world is on track with substantial progress in reducing under-5 mortality to at least 25 per 1000 live births and on increasing the coverage of births attended by skilled health personnel. The world is at a moderate distance from achieving the first target and is close to achieving the second target. All developed countries have met or almost met these targets; Sub-Saharan Africa on the other hand, is very far from achieving the first target, where limited or no progress was made, and is at a moderate distance from the second target where fair progress was made but acceleration is needed. In relation to the targets of eradicating malaria and increasing of vaccine coverage among 1-year-olds (diphtheria-tetanus-pertussis), the world is far from achieving the first goal and at a moderate distance from the latter. Developed countries have met/ almost met the first target and are close to the second, while Sub-Saharan Africa and Pacific island countries⁶ are very far from achieving the first target and far/very far respectively from achieving the second (United Nations, 2020a).

Goal 4: Quality education

Education is a human right directly linked with people's wellbeing (Du Preez, 2012) and it is accepted that everyone should have access to it. According to the Universal Declaration of Human Rights (1948), education should aim for the human personality's full development as well as the reinforcement of respect towards human rights and all fundamental freedoms (Curren, 2009).

Education comes with a variety of benefits, including better health and well-being, changes in social attitudes and civic participation, while also providing capabilities and competences with significant benefits for the individual (Bynner et al., 2003). Better income and occupation have been linked with higher levels of education and it is shown that education can lead to economic and social prosperity (Schuller et al., 2004). Education is also significantly important for the development of a country in general. That is, it has been linked as a driver of economic growth and promoting income distribution, political stability, more equal opportunities, the skilling of human resources, better health and low crime rates (Ojiambo, 2009).

SGD 4 aims to achieve inclusive and equitable quality education and promote lifelong learning opportunities for everyone. It focuses on access to pre-primary, primary and secondary education and their completion by every girl and boy globally, as well as access to technical, vocational and tertiary education for every woman and man. The 4th SDG aims to achieve full global literacy and numeracy, focusing on the development of skills needed for employment while eliminating gender disparities in education and ensuring equal access for everyone.

Target 4.1 focuses on the global completion of primary and secondary education by all children. According to UNESCO data, retrieved from the World Bank database, in 2019, globally, 58,400,000 primary-school-age children were not enrolled in school. More than half of these children were from Sub-Saharan Africa (33,800,000), while a considerable number of children not enrolled into primary school were from South Asia (12,800,000). Overall, these numbers have dropped since 2000, but today's numbers highlight the importance of strategies' for enrolling all children in primary school (World Bank, 2020).

⁶ Pacific island counties include Oceania, excluding Australia and New Zealand (United Nations, 2020a,b).

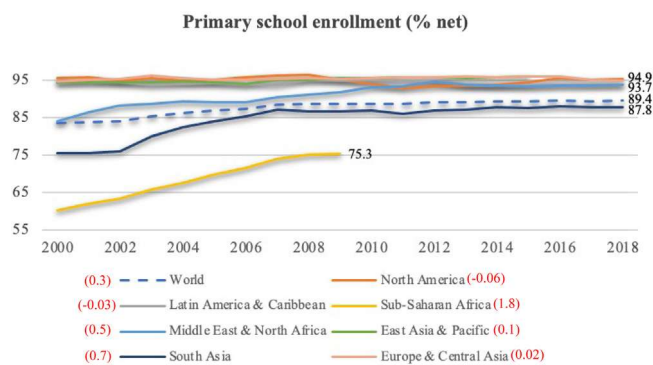


Fig. 8. School enrollment, primary (% net).

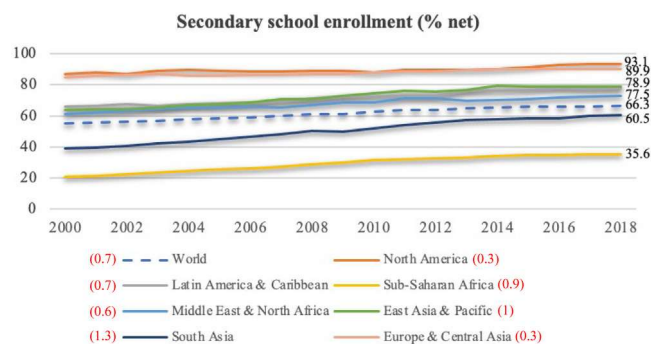


Fig. 9. School enrollment, secondary (% net).

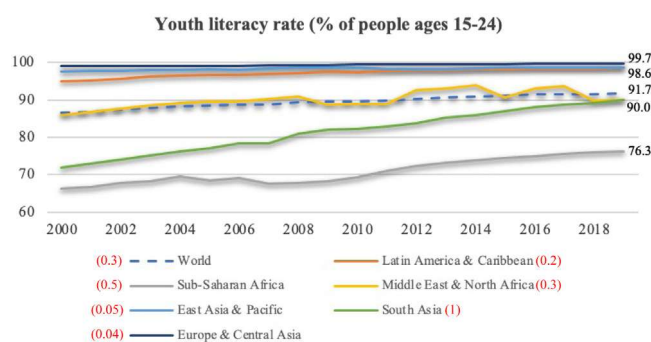


Fig. 10. Literacy rate, youth total (% of people ages 15–24).

The World Bank database also includes UNESCO data regarding the ratio of children of official school age that are enrolled in school. For instance, the global enrollment rate in primary school was 89.4% in 2018, while the enrollment rate in secondary school for the same year was 66.3%, marking the significant number of students that stop their studies after primary school. Sub-Saharan Africa had the lowest rate of students enrolled in primary school, even though remarkable progress was made during the decade since 2000 (data were not available after 2009). Progress was also made in the rate of students enrolled in secondary school, but the rates still remain low. South Asia was also below the world's average rate, a region where improvements are required in the specific area (Fig. 8, Fig. 9) (World Bank, 2020).

Target 4.6 refers to the achievement of literacy and numeracy by youths, as well as by adults. The global youth literacy rate which measures the percentage of people aged 15–24 who have the ability to read and write, was 91.7% in 2019, based on UNESCO data retrieved from the World Bank database. This rate shows an increase since 2000, when it was estimated at 86.6%. The regions in the world with the lowest rates of youth literacy were, once again, Sub-Saharan Africa and South Asia where the rates were 76.3% and 90% respectively. This is despite the considerable progress that was made since the beginning of the century. Data for North America were not available (Fig. 10) (World Bank, 2020).

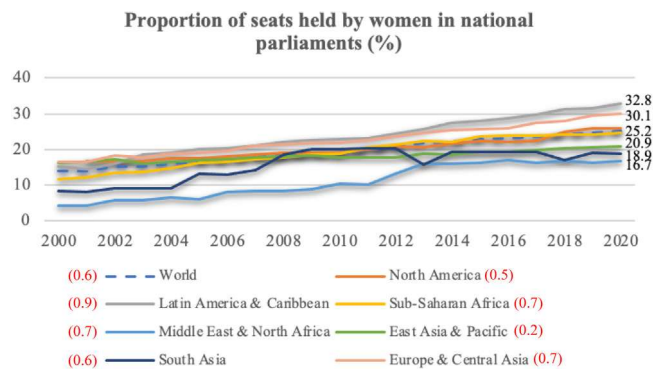


Fig. 11. Proportion of seats held by women in national parliaments (%).

According to the SDG Progress Chart 2020, the world is far from achieving its target of ensuring that every girl and boy completes primary education and even though a fair degree of progress has been made, acceleration is needed. Thus, while developed countries have met or almost met this target, Sub-Saharan Africa and Pacific island countries are very far from achieving it (United Nations, 2020a).

Goal 5: Gender equality

Gender is a factor that can cause inequalities between persons, with women usually being the more disadvantaged individuals compared to men (Lorber, 2001). Gender inequality has been defined as “the greater status and power of men than women that often emerges in the control of women’s sexuality and other aspects of their behavior” (Wood and Eagly, 2002). Gender inequality can be found in different forms in our society: for example, in the work environment, in the household, in education and in the health sector. Violence against women and its different forms are also included in the definition of gender inequality (Lorber, 2001).

Gender inequality has been present in the world for centuries. However, its incidence changes across time and place and improvements are possible as a consequence of collective action and institutional change (Seguino, 2000). The 5th SDG aims to achieve gender equality and globally empower all women young and old. The targets that have been set focus on ending every form of discrimination and eliminating every form of violence against women, on putting an end to all harmful practices (such as early and forced marriage) and on providing access to sexual and reproductive health. In addition, the goal aims to recognize women’s unpaid domestic work and promote their active participation in political, economic and public life.

The issue of violence against women is addressed in target 5.2, highlighting the importance of its elimination. The United Nations Statistics Division does not provide universal data regarding the proportion of women that have been subjected to physical and/or sexual violence in the last 12 months. Based on the data provided for individual countries, it can be concluded that in most European countries, the percentage of women aged 15–49 who were subjected to violence was under 10% for the years 2005–2017. The highest percentages were mainly observed in African and South Asian countries (UNSD, 2020).

Target 5.3 addresses, among others, the issue of early forced marriage and proposes the usage of the indicator that assesses the proportion of women who were married before age 15. The United Nations Statistics Division does not provide universal data but, based on individual countries data, it can readily be concluded that since 2000, high percentages of women aged 20–24 that were first married by age 15 were to be found in African countries and in a number of South Asian countries (UNSD, 2020).

Target 5.5 refers to women’s participation in political, economic and public life and uses the proportion of seats held by women in national parliaments as an indicator in order to evaluate this specific target. According to Inter-Parliamentary Union data retrieved from the World Bank database, in 2020, 25.2% of parliamentary seats in the world were held by women, a percentage which has significantly increased compared to twenty years ago. The highest percentages were observed in Latin America, the Caribbean, in Europe and Central Asia as well as in North America. The Middle East and North Africa had the lowest percentage of parliamentary seats held by women (16.7% in 2020), but remarkable progress has been made since the beginning of the century, when this percentage was only 4.2% in these regions (Fig. 11) (World Bank, 2020).

According to the SDG Progress Chart 2020, the world is at a moderate distance from achieving the elimination of child marriage and women’s full participation and equal opportunities in national parliaments. While a fair degree of progress has been made, acceleration is needed. Sub-Saharan Africa is far from eliminating child marriage, while Pacific island countries are very far from achieving women’s participation in national parliaments (United Nations, 2020a).

Goal 6: Clean water and sanitation

Clean water and sanitation, as well as wastewater management should be available for all, in order to ensure economic development and life quality (Tortajada and Biswas, 2018). Access to water and sanitation services are an undeniable

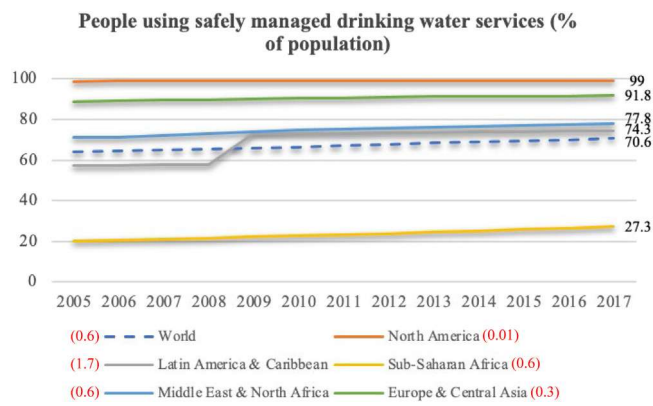


Fig. 12. People using safely managed drinking water services (% of population).

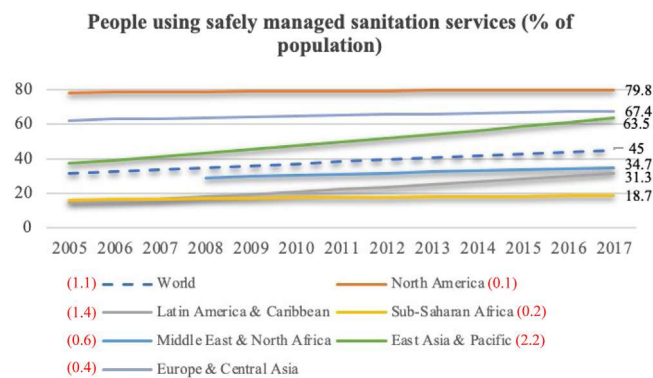


Fig. 13. People using safely managed sanitation services (% of population).

human right, since they can protect public health, maintain basic living conditions and overall, provide conditions vital for survival (Castro et al., 2012).

Lack of access to clean water and lack of hygiene can lead to illness and death, especially in developing countries (Bartram et al., 2005). Reinsuring access to clean water and sanitation is essential for public health and is one of the least expensive means that can contribute to this goal (Montgomery and Elimelech, 2007).

SDG 6 aims to ensure global availability and sustainable management of water and sanitation. It focuses on access to drinking water and sanitation and hygiene for everyone as well as on the improvement of water quality. In addition, it promotes the increase of water-use efficiency and the protection of water-related ecosystems.

Target 6.1 focuses on universal access to safe water for everyone. The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) provides data (retrieved from the World Bank database) regarding the indicator for target 1.1 - the percentage of people using safely managed drinking water services. In the world, this percentage was estimated at 70.7% in 2017, having increased since 2015 when it was 64.2%. The percentage is significantly lower in Sub-Saharan Africa, where only 27.3% of the population could use drinking water from improved sources in 2017, while most people in North America and in Europe and Central Asia had such access. Data for South Asia and East Asia and the Pacific were not available (Fig. 12) (World Bank, 2020).

Following the same pattern, target 6.2 focuses on universal access to sanitation and hygiene. The WHO/UNICEF JMP provides data (retrieved from the World Bank database) regarding the percentage of people using safely managed sanitation services. In 2017, only 45% of the world's population used improved sanitation facilities, an increased percentage compared to the 31.5% in 2005. This percentage was significantly lower in Sub-Saharan Africa (18.7% in 2017), as well as in Latin America and the Caribbean and in the Middle East and North Africa. Remarkable progress was made in East Asia and the Pacific where the percentage of people using sanitation services increased from 37.6% in 2005, to 63.5% in 2017. Data for South Asian countries were not available (Fig. 13) (World Bank, 2020).

Statistics regarding the level of water stress – which is addressed by target 6.4 – were sourced from the World Bank database which provides FAO data on freshwater withdrawal as a proportion of available freshwater resources. The ratio between total freshwater withdrawn by all sectors and the global total of renewable freshwater resources for 2014 was 11841.4. The lowest ratio was observed in North America and the highest ratio in the Middle East and North Africa. Data for East Asia and Pacific were not available (Fig. 14) (World Bank, 2020).

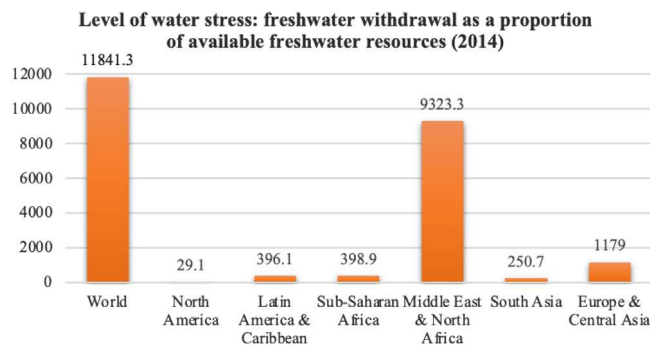


Fig. 14. Level of water stress: freshwater withdrawal as a proportion of available freshwater resources.

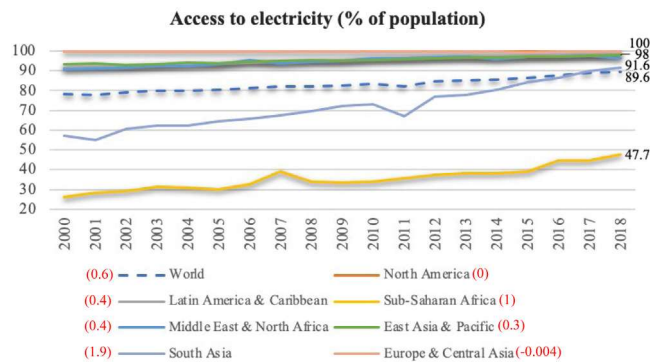


Fig. 15. Access to electricity (% of population).

According to the SDG Progress Chart 2020, the world is at a moderate distance from achieving universal access to safely managed drinking water services but far from achieving universal access to safely managed sanitation services. While developed countries are close to the targets, Sub-Saharan Africa is far from achieving the first target and very far from the second. Northern Africa and Western Asia as well as Latin America and the Caribbean are far from achieving the latter target (United Nations, 2020a).

Goal 7: Affordable and clean energy

Energy is necessary for a population's well-being, for economic development and for the functionality and evolution of societies (Brand-Correa and Steinberger, 2017; Smil, 2019). Energy is an important part of everyday life given it is required in the production of all goods and services (Lambert et al., 2014). Access to energy can ameliorate poverty, reduce inequalities, improve human health, food security, income and education and assist strategies dealing with climate change (Nussbaumer et al., 2012).

The world is currently based on fossil fuels to cover its energy needs. Since the early 1800's carbon-based fuels have been the main driver of economic and social growth in the world (Höök and Tang, 2013). Due to the many disadvantages that come with the usage of fossil fuels (finite resources some of which could possibly face depletion in the future), high greenhouse gas emissions and contribution to global warming), in the past few years the significance of transitioning to renewable energy sources has become a critically important issue (Abas et al., 2015).

The 7th SDG aims to ensure universal access to affordable, reliable, sustainable and modern energy mainly by ensuring that world's population will have access to electricity and to clean fuels and technologies. In addition, it aims to increase the share of renewables in the global energy mix, improve energy efficiency while promoting clean energy research and technologies.

Target 7.1 addressed the issue of universal accessibility to affordable, reliable and modern energy services. Based on the World Bank database, in 2018, 89.6% of world's population had access to electricity; a 12% improvement improved compared to 2000, when the same percentage of population was 78.3%. The lowest percentages were observed in Sub-Saharan Africa, where only 26% of population in 2000 and 47.7% in 2018 had access to electricity. Low percentages were observed in South Asia in the first years of the 21st century although this percentage had witnessed a remarkably increase by 2018 when it reached 91.6%. High percentages of electricity access were noted in every other region in the world (Fig. 15) (World Bank, 2020).

Target 7.2 focuses on the significance which attaches to access to higher rates of renewable energy and identifies the indicator "Renewable energy share in the total final energy consumption" for its evaluation. According to the World Bank

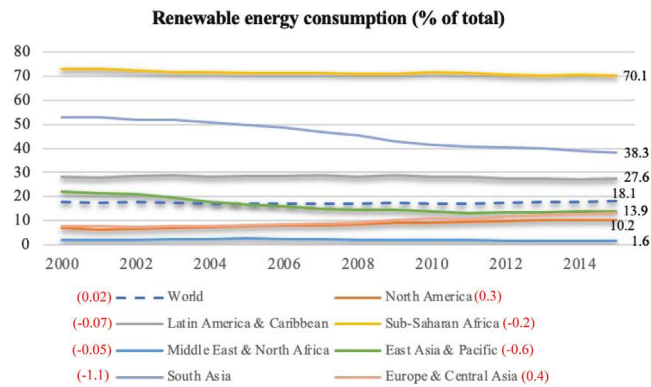


Fig. 16. Renewable energy consumption (% of total final energy consumption).

database, the share of renewables in the world's total final consumption was 18.1% in 2015, which has been maintained at about the same levels since 2000. 70.1% of Sub-Saharan Africa's energy needs were covered by renewable sources in 2015, and equally high percentages have been observed since 2000, making it the region with the highest share of renewables in total power consumption. In contrast, the lowest percentages were observed in the Middle East and North Africa, where renewables constituted only 1.6% of their total final energy consumption in 2015 (Fig. 16) (World Bank, 2020).

According to the SDG Progress Chart 2020, the world is at a moderate distance from achieving universal access to electricity and from doubling the global rate of improvement in energy efficiency. While developed countries have already met or almost met the first target, they are only at a moderate distance from the second, where fair level of progress has been made but acceleration is needed. Sub-Saharan Africa is very far from meeting both targets, while Pacific island countries are also very far from the first target. In contrast, in Latin America and the Caribbean the second target has been met or almost met, and these countries are close to achieving the first target as well (United Nations, 2020a).

Goal 8: Decent work and economic growth

Economic growth can be defined as “an increase in the productive capacity of an economy as a result of which the economy is capable of producing additional quantities of goods and services” (Palmer, 2012). In other words, economic growth can be identified with an increase in real national income per capita and in real national output (Hess, 2013). A strong connection exists between economic growth and human development (Ranis et al., 2000). Higher income levels lead to higher living standards and to better health and life quality (Acemoglu, 2012).

Employment is an important part of life: individuals need to work in order to gain income that will satisfy their basic needs (food, health, clothing, residence), to be integrated in their communities and to acquire skills and competences. However, it is necessary to re-ensure that everyone has access to a decent form of work that respects human rights and human dignity and contributes to human development (Frey and MacNaughton, 2016). The International Labour Organization (ILO) supports the idea that decent work and full employment will be a key element in the process of poverty reduction (ILO, 2020).

SDG 8 aims to promote inclusive and sustainable economic growth, as well as employment and decent work for all. The goal focuses on the achievement of higher productivity and growth and on the promotion of policies that support productivity, job creation, entrepreneurship and innovation. Additionally, it promotes sustainable production and consumption with improved resource efficiency so that economic growth will not lead to environmental degradation. Full and productive employment and decent work for everyone, the eradication of forced labor and the protection of labor rights are found at the core of the 8th SDG.

Target 8.1 refers to countries' economic growth and proposes the use of the annual growth rate of real GDP per capita to assess growth. The World Bank provides relevant data; in 2019, the world's annual growth rate of GDP per capita was 1.4%. This year, the highest growth rate was observed in South Asia, while the growth rates of East Asia and the Pacific and North America were higher than the world's average. Negative growth rates were observed in Sub-Saharan Africa and in Latin America and the Caribbean for 2019 (Fig. 17) (World Bank, 2020).

Employment is an issue addressed by the 8th SDG: target 8.5 focuses on the achievement of full and productive employment and decent work for all. In 2020, based on ILOSTAT data (retrieved from the World Bank database), total global unemployment was 5.4% - a percentage which has been relatively stable since 2000. The highest level of unemployment in this twenty-year period were observed in the Middle East and North Africa. An increase was observed since 2014 in Latin America and the Caribbean, while relatively high percentages were also observed in Europe and Central Asia. The lowest levels of unemployment were observed in East Asia, the Pacific and in South Asia (Fig. 18) (World Bank, 2020).

Target 8.10 has an aim of access to banking, insurance and financial services for all. Two main indicators are adopted for its evaluation: the number of commercial bank branches and the number of automated teller machines (ATMs). Based

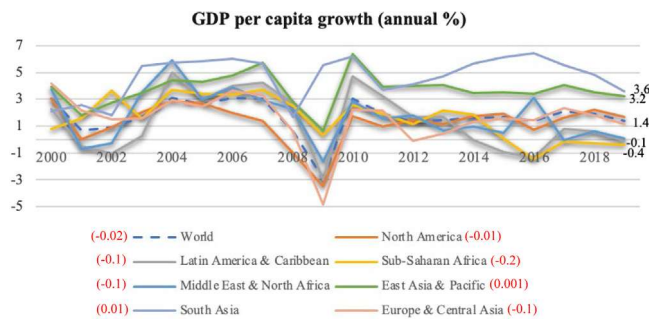


Fig. 17. GDP per capita growth (annual %).

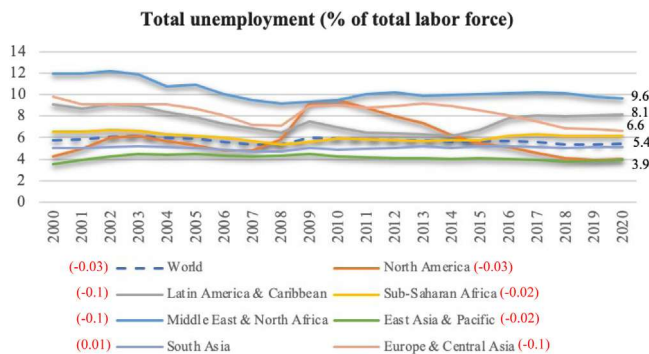


Fig. 18. Unemployment, total (% of total labor force) (modeled ILO estimate).

on IMF data retrieved from the World Bank database, in 2019, the greatest number of commercial bank branches was to be found in North America and in Europe and Central Asia (25 and 24.2 per 100,000 adults respectively). In Sub-Saharan Africa, only 5 branches per 100,000 adults existed in 2018, but this number had since increased considerably since 2005, when only 1.6 commercial bank branches existed per 100,000 adults. Globally, 13.6 branches per 100,000 adults existed in 2019. The highest number of automated teller machines was in North America in 2019–214.1 ATMs per 100,000 adults. In contrast, in Sub-Saharan Africa, there were only 6.8 ATMs per 100,000 adults in 2018, but which increased from 1 per 100,000 adults in 2005. Globally there were 49.6 ATMs per 100,000 adults 2019 (World Bank, 2020).

According to the SDG Progress Chart 2020, the world is close to sustaining per capita economic growth and achieve full and productive employment. Developed countries have met/almost met the first target and are close to meeting the latter. Central and Southern Asia as well as Eastern and South-Eastern Asia have also managed to meet/almost meet the first goal, while Sub-Saharan Africa, Latin America and the Caribbean and Pacific island countries are still very far from achieving it. At the same time, most regions are close to achieving full and productive employment. The exceptions are Latin America and the Caribbean which are at a moderate distance and Northern Africa and Western Asia which are far from achieving this target (United Nations, 2020a).

Goal 9: Industry, innovation and infrastructure

A variety of hazard events have been seen to repeatedly cause severe damages and losses to communities and regions (Lounis and McAllister, 2016). This is especially so in the case of impacts of climate change and which include rising sea-levels, extreme weather events and temperature changes, which can put pressure on infrastructure (Vallejo and Mullan, 2017). This has made the need for resilience in infrastructure more urgent than ever in order to reduce the extend of caused damage (Lounis and McAllister, 2016). Resilient infrastructure is important for people's better health, education and livelihood, while economic prospects, well-being and life quality can also be positively affected (Hallegatte et al., 2019).

Sustainable industrialization is an equally important element of sustainable development. The recent rapid industrialization taking place in developing countries has produced severe environmental impacts and therefore the concept of sustainable industrialization has been increasingly promoted (Le Heron and Hayter, 2018). Industry 4.0 (automatization in industry) and ICT (Information and Communication Technologies) in general can be very important factors in SDG implementation (Nhamo et al., 2020). In addition, for sustainable development to be achieved research and innovation also need to be a point of focus. These are all factors that can change the systems of production and consumption and provide valuable assistance in meeting the goals of sustainability (Von Geibler and Greven, 2019). Technological progress and innovation can lead to improvements related to sustainability such as resource and energy efficiency (Kynčlová et al.,

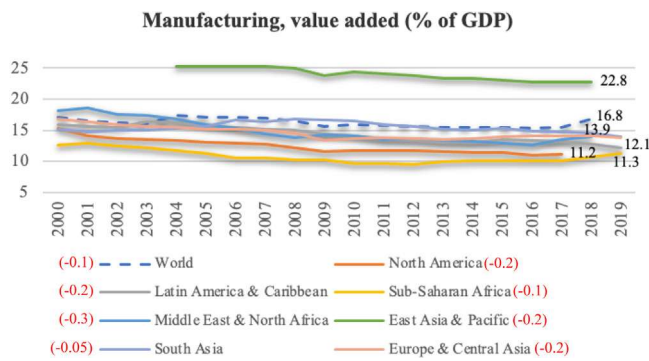


Fig. 19. Manufacturing, value added (% of GDP).

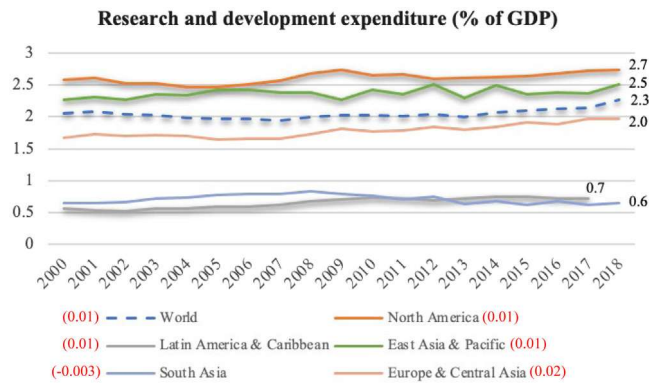


Fig. 20. Research and development expenditure (% of GDP).

2020). It is noted in this regard that developed countries are expected to transfer their technology and knowledge to developing countries in order to achieve sustainable development (Managi et al., 2021).

SDG 9 focuses on resilient infrastructures, sustainable industrialization and on research and innovation. More specifically, it promotes the development of sustainable and resilient infrastructure that will lead to economic development and human well-being, as well as inclusive and sustainable industrialization. In addition, it promotes the upgrade of infrastructure and industries in order to make them more resource-efficient, cleaner and environmentally friendly. The 9th SDG also focuses on research and development and encourages innovation.

Target 9.2 focuses on inclusive and sustainable industrialization and on industry's share of employment and gross domestic product. The World Bank provides data regarding manufacturing value added (MVA) as a percentage of GDP which is used as the achievement indicator for this target. In 2018, the world's MVA share in GDP was at 16.8%, having dropped slightly since 2000 when it stood at 17.1%. The highest share of MVA was observed in East Asia and the Pacific, being 22.8% in 2018 and at 25.3% in 2004. In contrast, the lowest shares were observed in Sub-Saharan Africa – 12.6% and 11.3% in 2000 and 2019 respectively. Globally, manufacturing value added is shown to have slightly decreased over the last two decades (Fig. 19) (World Bank, 2020).

Target 9.4 focuses on the sustainability of infrastructure and industries. The World Bank database provides IEA (2020) data regarding CO₂ emissions from manufacturing industries and construction as a percentage of total fuel combustion. In 2014 20% of the world's total fuel combustion originated from manufacturing and construction. This compares to 17.4% in 2000. Globally, the highest regional percentages for 2014 were observed in East Asia and the Pacific (27.7%) and South Asia (25.8%) and the lowest percentage in North America (9%). Since data are not available for 2015 onwards, it is not possible to evaluate the situation and the progress for this target since the establishment of the SDGs (World Bank, 2020).

The 9th SDG also promotes the enhancement of scientific research and in target 9.5. the upgrade of the technological capabilities of industrial sectors. Based on UNESCO data retrieved from the World Bank database, we can observe the expenditures for research and development, as a percentage of GDP. In the world, this percentage was 2.3% for 2018 – a slight increase over 2000, (2.1%). The highest percentages were observed in North America and in East Asia and the Pacific, but were significantly lower in South Asia, Latin America and the Caribbean. Data for Sub-Saharan Africa and the Middle East and North Africa were not available for all years. The only years' data available were 2007 for Sub-Saharan Africa (0.5%) and 2010 and 2012 for the Middle East and North Africa – 0.925% and 0.934% respectively (Fig. 20) (World Bank, 2020).

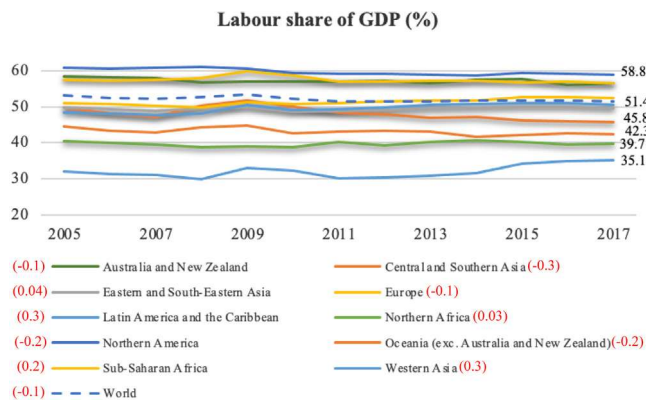


Fig. 21. Labor share of GDP (%).⁷

According to the SDG Progress Chart 2020, the world is close to significantly raising industry's share of GDP and to increasing access to mobile networks and at a moderate distance from increasing the expenditure for scientific research and development as a proportion of GDP. None of the world's regions are far from increasing access to mobile networks. Indeed, most are close to achieving it or have met/almost met this goal. Regarding research and development expenditure, developed countries are close to achieving the goal, while Sub-Saharan Africa is very far from achieving it. Eastern and South-Eastern Asia has met/almost met the target of raising industry's share of GDP, while developed countries are at a moderate distance from the target. Sub-Saharan Africa and Pacific island countries are far from achieving the latter target (United Nations, 2020a).

Goal 10: Reduced inequalities

Inequality can be defined as "the state of not being equal, especially in status, rights, and opportunities" (UN DESA, 2015) and is considered to be one of the most urgent societal problems. Inequality is a generic concept that can take many different forms (Coulter, 2019). It has a multidimensional nature and can be either economic, social or ecological (Kuhn, 2019).

Inequalities used to be examined by taking into consideration factors such as people's income, education and health. Lately, inequalities are viewed from a wider scope and factors such as discrimination, lack of fiscal, wage and social protection policies and lack of representation are also evaluated (Pandey et al., 2020).

It is accepted that the reduction of inequality will lead to a number of fundamental positive changes: it is a basic requirement for the reduction of extreme poverty, it positively correlates with socio-economic indicators and is a basic requirement for sustainable development (Apel, 2020). Inequality reduction is also essential for the achievement of inclusive growth (Kanbur et al., 2014).

SDG 10 aims to reduce inequality within and among countries. More specifically, the goal focuses on the achievement of income growth of the bottom 40 per cent of the population at a rate higher than the national average. In addition, the goal aims to achieve social, economic and political inclusion for all, ensuring equal opportunity, reducing inequalities of outcome and the adoption of policies that promote equality. The 10th SDG also promotes safer and more responsible migration and mobility.

Target 10.1 focuses on the bottom 40% of the population and on their income growth. The World Bank database provides data regarding the annualized average growth rate in per capita income for the bottom 40% of the population in specific countries. However, data is not available at the global level. Based on available data, we can observe that some of the highest growth rates during the time period 2015–2018 were observed in Romania (10% in 2017), China (8.4% in 2016), Malaysia (8.3% in 2015), Estonia (8% in 2017) and Latvia (7.9% in 2017). In contrast, the highest negative growth rates were observed in Benin (−5.2% in 2015), Zimbabwe (−3.8% in 2017), Egypt (−2.5% in 2017) and Uganda (−2.2% in 2016) (World Bank, 2020).

For the indicator proposed for target 10.2 - the proportion of people living below 50 percent of median income (%) - the World Bank database does not provide universal data. Based on the data available, some of the highest percentages were observed in Latin American countries as well as in certain African countries (World Bank, 2020).

Target 10.4 promotes the adoption of fiscal, wage and social protection policies that will lead to greater equality. Labor's share of GDP is used to assess progress in achieving this target. Based on UNSD data, the global share of labor in GDP was estimated at 51.4% in 2017 representing a small decrease since 2005 (53.1%). The highest share was observed in Northern America (58.8%), Europe, Australia and New Zealand as well as Sub-Saharan Africa were also while higher than the world's average. The lowest share of labor in GDP was observed in Western Asia (39.1%), while relatively low percentages were also found in Northern Africa and Oceania (Fig. 21) (UNSD, 2020).

⁷ Figs. 21, 24 and 25 were created based on data retrieved from UNSD (2020).

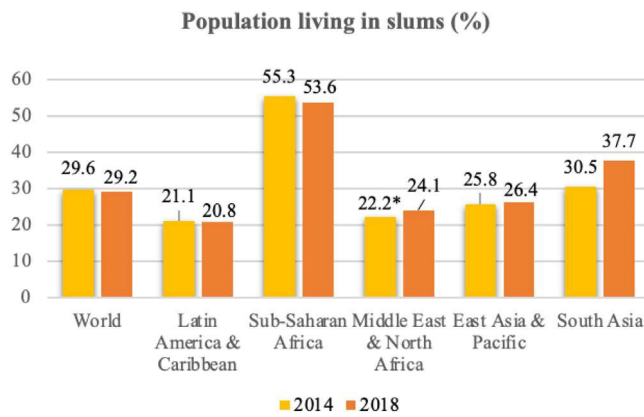


Fig. 22. Population living in slums (% of urban population).

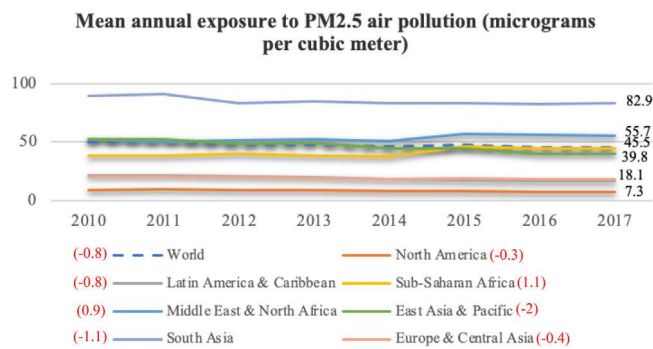


Fig. 23. PM2.5 air pollution, mean annual exposure (micrograms per cubic meter).

According to the SDG Progress Chart 2020, the world is at a moderate distance from reducing inequality within countries and faces limited or no progress regarding its achievement. None of the world's regions are close to its achievement, while countries in Latin America and the Caribbean and Sub-Saharan Africa are far from the target (United Nations, 2020a).

Goal 11: Sustainable cities and communities

The world is in the process of rapid urbanization (Devisscher et al., 2020). In 2019, 55.7% of the world's population lived in cities (World Bank, 2020) a number which is expected to increase significantly by 2050 leading to unprecedented levels of urban growth (Van der Berg, 2018). Cities already have particularly high ecological footprints: they account for a very high percentages of world's energy consumption and resource consumption leading to high carbon emissions and pollution of air and water. In addition, cities have a negative impact on biodiversity, on local climatic conditions, environmental degradation and deleterious effects on public safety and human health (Devisscher et al., 2020; Bibri and Krogstie, 2017).

A sustainable city can be defined as a city that “reduces energy consumption, protects the environment, promotes urban density, eases traffic congestion, lessens urban heat island effects, champions urban agriculture, recycles waste, provides clean water, expands parkland, creates ‘walkable’ neighborhoods, generates local employment, supports human health and well-being, celebrates civic engagement and enhances efficient information management” (Joss, 2015). Sustainable urban development is therefore critical in order to achieve social and environmental well-being in the long run (Yigitcanlar and Dizdaroglu, 2015).

The 11th SDG aims to make cities inclusive, safe, resilient and sustainable. Access to adequate, safe and affordable housing for all is found at the core of this goal, as is inclusive and sustainable urbanization. At the same access to affordable, accessible and sustainable transport systems is also promoted. SDG 11 also aims to reduce cities' environmental impacts and reduce the number of residents affected by disasters.

Target 11.1 which focuses on adequate and safe housing, uses the percentage of population living in slums for evaluation. According to UN HABITAT data retrieved from the World Bank database, in 2018, 29.2% of world's population lived in houses that were lacking water and/or sanitation, sufficient living area and/or housing durability. This percentage has not changed significantly since 2014 when it was 29.6%. In Sub-Saharan Africa over half the population lived in such conditions in 2014 (55.3%) a number which decreased gradually until 2018 (53.6%). Data were not available for North

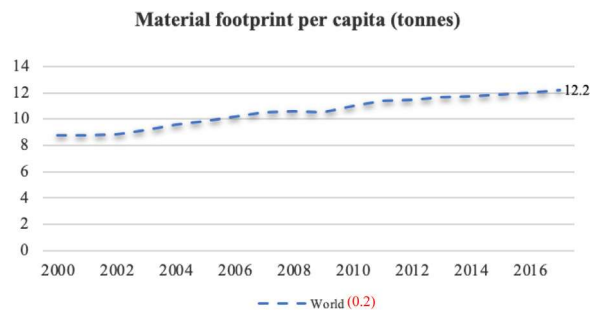


Fig. 24. Material footprint per capita (tonnes).

America, Europe and Central Asia. Data for the Middle East and North Africa for 2014 were not available – Fig. 22 presents data from 2016 for specific regions (Fig. 22) (World Bank, 2020).

Exposure to fine particulate matter (PM_{2.5} and PM₁₀) is an issue addressed in target 11.6. Globally, the mean annual exposure was estimated at 45.5 micrograms per cubic meter for 2017 a figure based on data retrieved from the World Bank database. This level was considerably higher in South Asia (82.9 in 2017), while people in North America faced the lowest exposure (7.3 in 2017). Globally, the exposure level was sustained at the 2010 level with the only notable improvements being in East Asia and the Pacific (from 51.9 to 39.8) and in South Asia (from 89.2 to 82.9) (Fig. 23) (World Bank, 2020).

According to the SDG Progress Chart 2020, the world is far from achieving the reduction of the proportion of urban population living in slums and far from a reduction of the levels of fine particulate matter in cities. Even though developed countries have met/almost met the first target and are close to achieving the second, the rest of the world is struggling. Sub-Saharan Africa is very far from reaching both targets, while Northern Africa and the whole Asia are far from achieving the first target and even further from achieving the second target. Only Pacific island countries have managed to meet/almost meet the target of reducing fine particulate matter levels, although they are far from reducing the proportion of urban population living in slums (United Nations, 2020a).

Goal 12: Responsible consumption and production

Production and consumption are found at the core of global economy: wealth generated from productive activities provides food security while medicine, infrastructure and services reduce poverty and promote people's welfare (Chan et al., 2018). On the other hand, unsustainable production and consumption come with a high negative environmental impact: the industrial sector leads to pollution of water, air and land. Environmental problems equally come from final consumption activities related to the sectors of mobility, food and energy use (Tseng et al., 2013; Tukker et al., 2008).

Sustainable consumption and production (CSP), as defined at the Oslo symposium on Sustainable Consumption in 1994, refers to “the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of future generations” (Norwegian Ministry of Environment, 1994). In other words, Sustainable consumption and production aims to achieve well-being for everyone and to reduce the environmental impact that comes from different socio-economic activities (Akenji and Bengtsson, 2014).

The topic of sustainable consumption and production has been extensively discussed over the past four decades but all measures undertaken were found to be relatively weak in their effect (Schröder et al., 2020). The 12th SDG aims to ensure sustainable consumption and production patterns by focusing on the implementation of relevant programs by all countries agreeing to take action. SDG 12 also aims to achieve efficient usage of natural resources, promote environmentally sound management of chemicals and waste, reduce food waste and waste in general and encourage the adoption of sustainable practices by companies.

Target 12.2 focuses on efficient use of natural resources and assesses the material footprint per capita. Based on UNSD data, the world's material footprint per capita in 2017 was 12.2 tonnes – an increase compared to 2000 (8.8 tonnes per capita) (Fig. 24) (UNSD, 2020). The same target also involves an assessment of domestic material consumption. Based on UNSD data, the world's domestic material consumption per capita was estimated at 12.2 tonnes – an increase compared to 2000 (8.7 tonnes). Australia and New Zealand and Northern America had the highest consumption while, as expected, the lowest domestic material consumption was observed in Sub-Saharan Africa, Central and Southern Asia and Northern Africa (UNSD, 2020).

According to the SDG Progress Chart 2020, the world is at a moderate distance from reducing the domestic material consumption per unit of GDP and close to rationalizing inefficient fossil-fuel subsidies per unit of GDP. Developed countries have met/almost met the first target and are close to the achievement of the second target. Central and Southern Asia is very far from achieving both targets while Sub-Saharan Africa is very far and far from achieving these targets respectively. Countries in Eastern and South-Eastern Asia and Pacific island countries are very far from reducing the domestic material consumption, while countries in Northern Africa and Western Asia are very far from rationalizing inefficient fossil-fuel subsidies (United Nations, 2020a).

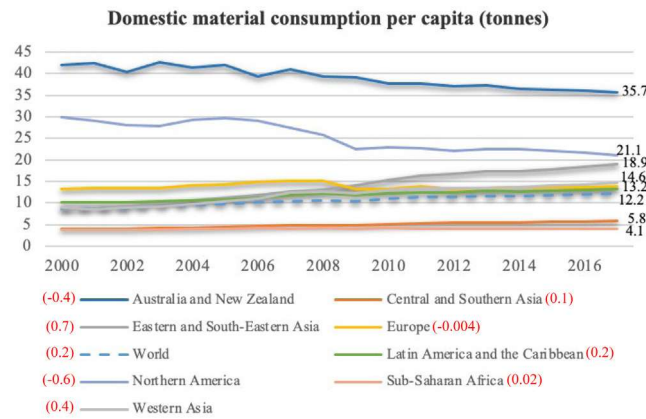


Fig. 25. Domestic material consumption per capita (tonnes).

Goal 13: Climate action

Climate change has been defined as “a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods” (United Nations, 1992).

These climatic changes and extreme climate events affect both natural and human systems. According to the IPCC, they can lead to “floods, droughts, and sea level rise”, while they can have an impact on “lives, livelihoods, health, ecosystems, economies, societies, cultures, services, and infrastructure” (IPCC, 2014a). It is accepted that climate change has the potential to considerably worsen some of the biggest challenges that the world faces today, such as poverty, hunger, inequality (Zhenmin and Espinosa, 2019). In addition, climate change affects all parts of the globe (Doni et al., 2020) and is a clear and present threat for all (Zhenmin and Espinosa, 2019).

In order to efficiently mitigate climate change, global cooperation and collective action is required rather than the promotion of the individual interests of each country independently (IPCC, 2014b). Various global attempts have been made to jointly address climate change and reduce GHG emissions (Brøns-Petersen and Gjedsted, 2020). A variety of positive impacts are accepted to result from adaptation to climate change: that is, ecosystems, human health and the economy will be protected from the risks climate change poses and social well-being will be promoted (Schraga and Grambsch, 1998). A plethora of measures for adaptation to climate change are currently proposed: these measures can be either ‘soft’ - which result in small changes that are reversible - or hard - those that are applied on a larger scales and typically more costly (Yang et al., 2020). Even though adaptation to climate change poses significant challenges and is viewed as a crucial policy problem (Boston and Lawrence, 2018), the promotion of such measures is necessary in order to reduce vulnerability and minimize the risks and negative impacts that come from climate change (Carmin et al., 2015).

SDG 13 aims to combat climate change and its impacts by taking urgent action and promoting the integration of climate change measures into every national policy and strategy. In addition, the goal aims to strengthen the resilience of every country, as well as their adaptive capacity to climate-related hazards and natural disasters. This involves, inter alia, promoting education and raising awareness regarding climate change mitigation and adaptation.

Target 13.1 focuses on natural disasters and hazards related to climate and uses the number of people that were affected by natural disasters as an indicator of their effects. Based on UNSD data, in 2010 the country where the number of deaths and missing persons attributed to disasters per 100,000 population was highest was Bhutan, where 397.1 people per 100,000 died or went missing. This number dropped to 172 people per 100,000 in 2015 and in 2019, only 3.7 persons per 100,000 died or went missing due to disasters in Bhutan. For 2010, based on the available data, the country with the highest numbers after Bhutan was Iraq (22.6 per 100,000), while for 2015, the countries that followed Bhutan were Nepal (33.7 per 100,000) and Armenia (14.7 per 100,000). Similarly, for 2019, based on the available data, Armenia was the country with the highest number (14.4 per 100,000), followed by Gambia (10.4 per 100,000) (UNSD, 2020).

In addition, the World Bank database provides EM-DAT data regarding the average percentage of population affected by droughts, floods and extreme temperatures during the period 1990–2009. The available data indicates that the countries that had the highest percentages were Eswatini (9.2%), Malawi (8.9%), China (7.9%), Niger (7.5%) and Eritrea (7.3%). These countries presented the highest percentages of population that were injured or required immediate assistance, left homeless or were displaced/evacuated. Most were African countries, while in China a significant percentage of affects population was observed. In European countries low percentages were noted, with the exception of Albania, where 5.3% of the population was affected by natural disasters (World Bank, 2020).

According to the SDG Progress Chart 2020, the world is far from reducing global greenhouse gas emissions with a deterioration being observed in its reduction. Data regarding the progress of separate global regions are not available (United Nations, 2020a).

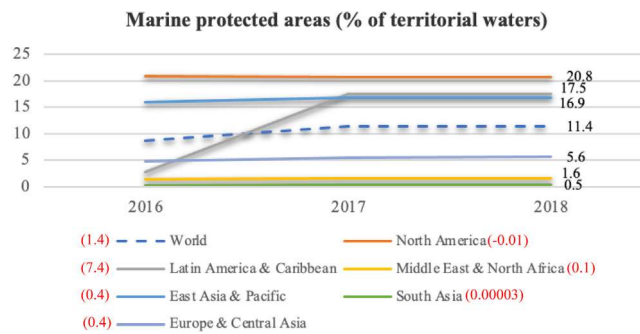


Fig. 26. Marine protected areas (% of territorial waters).

Goal 14: Life below water

Oceans cover more than 70% of the Earth's surface (Lovelock and Rapley, 2007) and are vital for every type of life on Earth; they generate oxygen and absorb carbon dioxide, they regulate climate, recycle nutrients and ensure food and livelihood (Bari, 2017). In other words, oceans are an ecosystem that provides goods and services basic for the whole society's well-being (Holthus and Council, 1999).

Climate change is a serious challenge for seas and oceans: sea levels are rising, sea ice cover is disappearing, the temperature of sea water has changed and storms are more frequent, to name a few of the effects (Philippart et al., 2011). In addition to the challenge that climate change poses, the overall usage of the marine environment is proving unsustainable due to the pressure that societies put on oceans and seas. Economic maritime activities have expanded and are now more intense, compared to previous years, while new activities have also developed leading to severe environmental problems for oceans (Wright et al., 2017).

Marine ecosystems provide extremely valuable services (Bernhardt and Leslie, 2013) and their conservation is critically important, since they contribute to poverty reduction, provides food security and sustainable livelihoods (Diz et al., 2019). The 14th SDG aims to conserve the oceans, sea and marine resources based on the principles of sustainability. More specifically, the goal focuses on the reduction of marine pollution and on the protection and conservation of marine and coastal areas and ecosystems. In addition, a focus is placed on ending overfishing and other harmful fishing practices and on minimizing the impacts of ocean acidification. SDG 14 thus promotes sustainable management of fisheries, aquaculture and tourism.

Target 14.5 focuses on the conservation of coastal and marine areas. Based on data retrieved from the World Bank database, in 2018 11.4% of the world's territorial waters were identified as marine protected areas – an increase compared to 2016, when the percentage was at 8.6%. The highest percentage of marine protected areas was observed in North America (20.8%), while a remarkable increase was observed in Latin America and the Caribbean, where this percentage rose from 2.7% in 2016, to 17.5% in 2017 and 2018. The lowest percentages were observed in South Asia and the Middle East and North Africa. Data for Sub-Saharan Africa were not available (Fig. 26) (World Bank, 2020).

According to the SDG Progress Chart 2020, the world is far from increasing the proportion of fish stocks within biologically sustainable levels and limited or no progress has been observed in its achievement. Data regarding the progress of separate regions in the world are not available. However, the world has managed to meet/almost meet the target regarding the conservation of at least 10% of coastal and marine areas by 2020. The target was met/almost met in Sub-Saharan Africa, Latin America and the Caribbean and in Pacific island countries, while Northern Africa and the whole of Asia were far from achieving this target (United Nations, 2020a).

Goal 15: Life on land

Trees and forests are an irreplaceable element of nature. They provide numerous services including social and economic, ecological, climatic and aesthetic benefits to humankind. They contribute to basic services for life, such as food provision, air pollution mitigation and health improvements (Bonan, 2008; Tyrväinen et al., 2005). Additionally, they can provide assistance in climate change mitigation, soil conservation as well as biodiversity preservation (Chakravarty et al., 2012). Population growth and its growing needs as well as climate change are drivers that can influence forest coverage and condition (Sayer et al., 2019).

Biodiversity is at the core of human societies, which depend on it for their survival and quality of life (Díaz et al., 2006; Opoku, 2019). Globally, biodiversity loss is a severe problem given it can have a major negative impact on the functions of ecosystems and on the goods that they provide (Cardinale et al., 2012). It can be a result of habitat change, invasive species, climate change, overexploitation and pollution (Mazor et al., 2018).

Conservation and restoration of terrestrial ecosystems and all the services that they provide, as well as their sustainable usage, is a major global challenge. The 15th SDG aims to protect, conserve and restore terrestrial ecosystems and their services and manage them in a sustainable way. The goal also focuses on managing forests in a sustainable way and on effectively addressing desertification while promoting afforestation and reforestation globally. The problem of natural

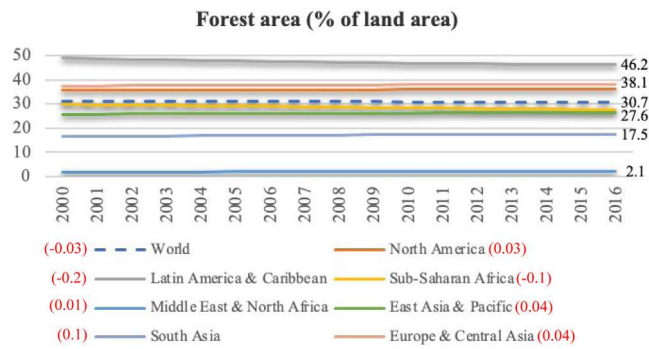


Fig. 27. Forest area (% of land area).

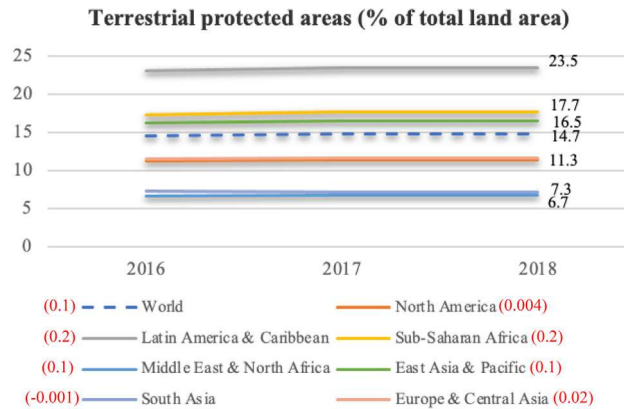


Fig. 28. Terrestrial protected areas (% of total land area).

habitats' degradation is also addressed, as well as the problem of biodiversity loss and the extinction of threatened species. One of the aims is to end poaching and trafficking of protected species of flora and fauna. In addition, SDG 15 focuses on the integration of ecosystem and biodiversity values into every development process, policy and strategy at the local and/or national level.

Target 15.1 focuses on the conservation of forests and assesses the extent of forest area as a proportion of total land area. According to FAO data retrieved from the World Bank database, forests accounted for 30.7% of the world's total land area in 2016, a percentage similar but a little reduced compared to 2000 (31.2%). The highest percentages of forest areas were observed in Latin America and the Caribbean (46.2% in 2016), while particularly low percentages were observed in the Middle East and North Africa (only 2.1% in 2016) (Fig. 27) (World Bank, 2020).

The same target uses an indicator of terrestrial protected areas for evaluation. Based on WDPA data retrieved from the World Bank database, in 2018 14.7% of total land area were terrestrial protected areas. The highest percentages were observed in Latin America and the Caribbean (23.5%), while the lowest percentages were found in the Middle East and North Africa (6.7%) and in South Asia (7.3%). Overall, the extent of protected areas has remained at similar levels for the years 2016–2018 (Fig. 28) (World Bank, 2020).

According to the SDG Progress Chart 2020, the world is still at a moderate distance from ensuring the conservation, restoration and sustainable use of terrestrial ecosystems as well as of protecting and preventing the extinction of threatened species – targets which were to be achieved by 2020. None of the world's regions are close to the achievement of the first target: Northern Africa and the whole of Asia are far from this achievement and Pacific island countries are very far from achieving this target. Developed countries, as well as Northern Africa and Western Asia and Pacific island countries were close to achieving the second target, although deterioration was observed in their progress. Countries in Central and Southern Asia and Eastern and South-Eastern Asia were far from achieving the second target (United Nations, 2020a).

Goal 16: Peace, justice and strong institutions

Peace is fundamental for ensuring a population's health, productivity and development (Wesley et al., 2016). Local and regional development, poverty, life expectancy and education are negatively impacted by violence and conflicts. The achievement of peace and security is therefore necessary to ensure sustainable development (Hope Sr, 2019; Huff et al., 2016).

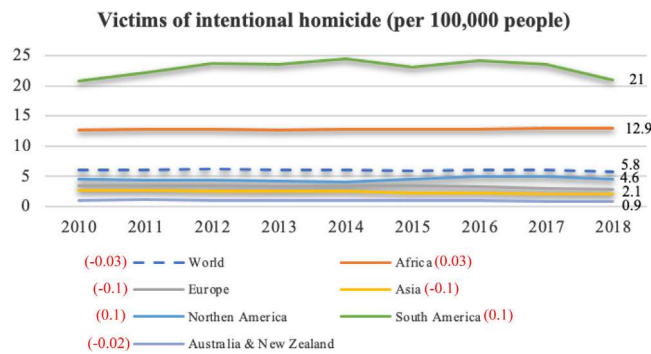


Fig. 29. Victims of intentional homicide.⁸

The concepts of peace, justice and security are difficult to define and measure (Wesley et al., 2016). This creates a major challenge in monitoring and evaluating their impacts and the general progress in achieving the 16th SDG.

An analysis of elements at the core of goal 16 (Dasandi and Mikhaylov, 2019) focuses on the reduction of violence, especially children's abuse, promoting the rule of law and ensuring access to justice for everyone. In addition, the goal's aims include reduction of corruption and bribery as well as illicit financial and arms flows. The development of effective and transparent institutions, public access to information and the protection of fundamental freedoms are also issues addressed by SDG 16. Indeed, the achievement of the 16th SDG is necessary, in order to achieve all the other SDGs and sustainability (Wesley et al., 2016).

Target 16.1 focuses on the reduction of violence and death rates, including victims of intentional homicide. Based on the UN Office on Drugs and Crime's International Homicide Statistics database, the number of intentional homicides per 100,000 people in the world for 2018 was estimated at 5.8; a rate that was relatively stable since 2010. South America had the highest rate, estimated at 21 per 100,000 people in 2018, while the lowest rates were observed in Australia & New Zealand (Fig. 29) (UNODC, 2020).

Target 16.5 refers to the reduction of corruption and bribery. The World Bank database provides data regarding the percentage of firms from which informal payments to public officials were expected. Data for 2019 indicates that 20.6% of firms in the world are expected to become involved in such activities, while the highest percentage is observed in East Asia and the Pacific (47.8%) and the lowest in Latin America and the Caribbean (10.6%). Data for North America were not available (Fig. 30) (World Bank, 2020).

According to the SDG Progress Chart 2020, the world is far from reducing homicide rates and the proportion of people classified as unsentenced detainees. Fair progress was made on reaching the first target but acceleration is needed. However, a deterioration was observed in progress in meeting the latter goal. Eastern and South-Eastern Asia countries have met/almost met the first target, while the rest of Asia, Northern Africa and all developed countries are at a moderate distance from achieving it. Countries in Sub-Saharan Africa and Latin America and the Caribbean were very far from achieving it. Developed countries are close to achieving the second target, while Sub-Saharan Africa and Central and Southern Asia are very far from its achievement. The world is at a moderate distance from increasing the number of countries that include independent national human rights institutions that are in compliance with the Paris Principles. Developed countries have met/almost met this target, while the rest of the world's regions are at a moderate distance, with the exception of Pacific island countries which are still very far from achieving this goal (United Nations, 2020a).

Goal 17: Partnerships for the goals

The creation of a global partnership will play a key role in the successful achievement of all of the 17 SDGs (Bull and McNeill, 2019). Such a strategic partnership will be able to set a common framework of principles and guidelines based on common expectations of the actors in order to facilitate the SDGs' implementation and achieve long-term results (Kim, 2015).

The 17th SDG aims to revitalize the global partnership for sustainable development and strengthen the means of implementation of SDGs. More specifically, this goal focuses on strengthening domestic resource mobilization and on mobilizing additional financial resources for developing countries while assisting them in attaining long-term debt sustainability. In addition, the goal aims to ensure access to science, technology and innovation for specific regions, enhancing the usage of enabling technology, while promoting the development and diffusion of environmentally sound technologies. In this way, a universal and open trading system is promoted, as well as increasing of exports of developing countries. The global partnership for sustainable development would thereby be enhanced as well as policy coherence for sustainable development. The development of accurate measures of sustainable development is also promoted.

⁸ Fig. 29 was created based on data retrieved from UNODC (2020).

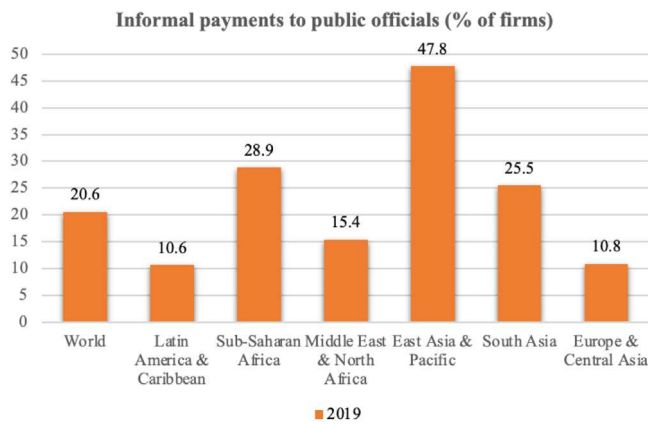


Fig. 30. Informal payments to public officials (% of firms).

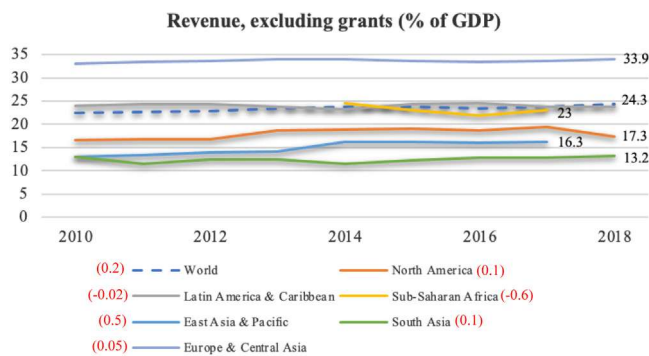


Fig. 31. Revenue, excluding grants (% of GDP).

Target 17.1 uses as an indicator of goal achievement total government revenue as a proportion of GDP. According to data retrieved from the World Bank database, revenues accounted for 24.3% of world GDP in 2018. The highest percentage was observed in Europe and Central Asia (33.9%), while the lowest percentage was observed in South Asia (13.2%). Data for the Middle East and North Africa were not available, while data for Sub-Saharan Africa were available only for the years 2014–2017. Overall, the global achievement of this goal has not progressed greatly since 2010 (Fig. 31) (World Bank, 2020).

In order to assess Target 17.8 that focuses on enhancing the use of enabling technology, the proportion of individuals using the Internet is proposed. Based on International Telecommunication Union data, retrieved from the World Bank database regarding the level of individuals using the Internet, it is observed that 49% of world's population were using the internet in 2017. This percentage was higher in North America (88.5%) and Europe and Central Asia (78.9%), while the lowest percentages are found in Sub-Saharan Africa (18.7%) and South Asia (20.1%). Overall, these percentages have significantly changed since the beginning of the 21st century with a major increase of population using the internet has been observed (Fig. 32) (World Bank, 2020).

Target 17.10 promotes an open, non-discriminatory and equitable multilateral trading system and proposes the use of the worldwide weighted tariff-average for evaluation. Based on World Bank data, the world's weighted mean applied tariff rate was estimated at 2.6% in 2017 a decrease compared to 2000 (5%). The highest tariff rates were observed in South Asia, where a remarkable decrease has been observed since 2000 (from 21.4% to 5.9%). The lowest tariff rates were observed in East Asia and the Pacific (2.5%) and in Europe and Central Asia (2.7%) (Fig. 33) (World Bank, 2020).

According to the SDG Progress Chart 2020, the world is at a moderate distance from enhancing access to technology with the increase of internet use, as well as from increasing the proportion of countries that have a fully funded national statistical plan. Limited or no progress was made in reaching the second target. Developed countries are close to achieving the first target; Sub-Saharan Africa countries are very far and Central and Southern Asia countries are far from it, but substantial progress is being made. Developed countries have also met/almost met the second target, while Sub-Saharan Africa, Latin America and the Caribbean and Pacific island countries are still far from achieving it. At the same time, the world is far from the target of full implementation of the net official development assistance disbursements by donor countries, with limited or no progress being made. Data regarding each region of the world are not available (United Nations, 2020a).

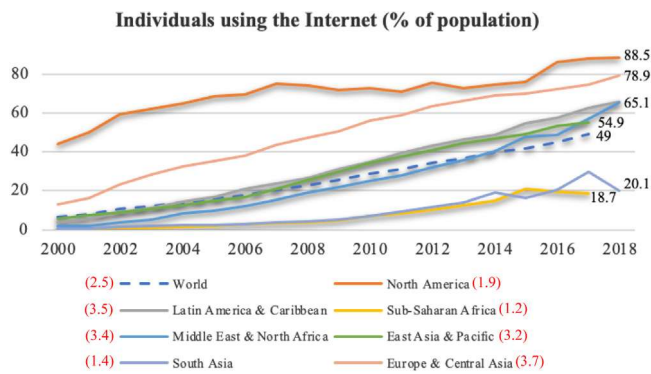


Fig. 32. Individuals using the Internet (% of population).

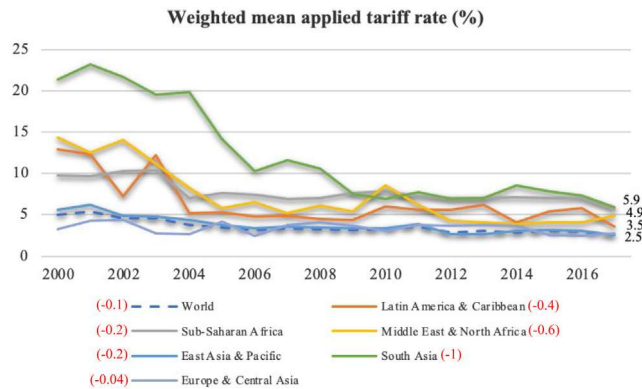


Fig. 33. Tariff rate, applied, weighted mean, all products (%).

3. Discussion

Data provided by the United Nations in the SDG Progress Chart 2020 (United Nations, 2020a) can help us evaluate global progress. More specifically, the United Nations data provides us with a current evaluation of the achievement of a number of SDG targets and for which data were available – most of which do not reflect the impacts of the COVID-19 pandemic.

This progress is briefly presented in sections which examine each individual goal. However, in this section, these findings are presented in more aggregated form, which provides an assessment of which goals are close to being achieved and which require more effort. Based on the United Nations' assessments for each individual target presented in Table 1, a combined evaluation was extracted, assigning the same weight to each one of the mentioned targets and thereby providing a means for evaluating the overall situation. Each SDG's progress evaluates those areas that require additional efforts and where acceleration in goal achievement is needed. Even though not all 169 targets are evaluated, the included targets are representational of each goal.

The scale of evaluation, as identified by the United Nations (2020a), is:

1. Very far from the target
2. Far from the target
3. Moderate distance to the target
4. Close to the target
5. Target met/almost met

Based on these assessments, it is obvious that the world is close to achieving certain targets included in the 8th SDG, which relates to economic growth and full and productive employment. Despite per capita economic growth being a little lower in 2019 compared to previous years, the world moved closer to realizing its commitments in this field. In addition, the world is also moderately close to the achievement of targets included in the 9th and the 12th SDGs. This provides an indication of the extent of progress made in achieving the economic pillar of sustainability.

On the other hand, the world is still far from achieving other goals and targets that were set. Primary education completion levels are still far from the optimal; the proportion of population living in slums is still not adequately reduced

Table 1
SDGs progress and targets evaluated for this assessment.

SDGs	Targets evaluated	Progress
1	- Eradicate extreme poverty for all people everywhere - Achieve substantial social protection coverage	
2	- Ensure access to safe, nutritious and sufficient food - Achieve 40% reduction in the number of stunted children under 5 years old, by 2025	
3	- Increase number of births that were attended by skilled health personnel - Reduce mortality of children under 5 years old to at least 25 per 1000 live births - End malaria - Increase vaccine coverage for 1-year-olds for diphtheria, tetanus, pertussis	
4	- Ensure primary education completion by everyone	
5	- Eliminate child marriage - Ensure women's opportunities and participation in national parliaments	
6	- Achieve access to safe water services for all - Achieve access to safe sanitation services for all	
7	- Achieve access to electricity for all - Double energy efficiency's rate of improvement in the world	
8	- Sustain economic growth (per capita) - Achieve full employment for all	
9	- Raise the share of industry in GDP - Increase research and development expenditure - Increase mobile networks' access	
10	- Reduce inequalities existing within countries	
11	- Reduce urban population that lives in slums - Reduce cities' levels of fine particulate matter	
12	- Reduce domestic material consumption - Rationalize inefficient subsidies for fossil fuels	
13	- Reduce GHG emissions in the world	
14	- Increase fish stocks - Conserve coastal & marine areas – at least 10% by 2020	

(continued on next page)

and the levels of fine particulate matter in the world's cities remain unacceptably high, as are the world's GHG emissions. The evaluation of targets for the 16th Goal regarding peace and justice, indicate that improvements are required in this area as well. The same applies for the 2nd SDG regarding hunger and for the 6th SDG regarding water and sanitation services. All of these goals are crucial for the satisfaction of people's basic needs and therefore improvements in their achievement are critical for people's welfare globally.

In order to accelerate progress in achieving the 4th SDG regarding education and specifically in primary education completion by everyone, a number of necessary actions need to be taken. Partnerships and global, national and regional collaboration are required, to establish policy frameworks that promote a better educational system that is inclusive and

Table 1 (continued).

SDGs	Targets evaluated	Progress
15	<ul style="list-style-type: none"> - Conserve and restore terrestrial ecosystems and use them sustainably, by 2020 - Protect threatened species and prevent their extinction, by 2020 	
16	<ul style="list-style-type: none"> - Reduce homicide rates - Reduce unsentenced detainees - Increase the number of countries with national human rights institutions 	
17	<ul style="list-style-type: none"> - Ensure official development assistance's implementation by donor countries - Increase internet use - Increase number of countries with a fully funded national statistical plan 	

equitable. This is especially so in Sub-Saharan Africa and South Asia. Global cooperation will also lead to better monitoring of the educational situation, which in turn can lead to the implementation of tailored actions in each region. In this way, promotion of primary school enrollments can be affected in all global regions. Increased and well-targeted financing including public expenditure on educational sector is also seen as mandatory (Unesco, 2016). Focus should also be given to eliminating discrimination and gender inequalities that particularly impact girls' or vulnerable groups' enrollment in primary school and its completion.

The implementation of policies and strategies to enhance progress is also required in the case of the 11th SDG. Here, partnerships and global cooperation will play a key role in implementing measures that will make cities and communities more sustainable, reduce socio-economic inequalities and promote better environmental conditions. In the case of slums, policies should focus on addressing the different dimensions of urban poverty as well as on securing the necessary resources including making new investment in upgrading slum infrastructure. An additional focus should also be given to securing tenure and property rights, especially among the poor (UN-HABITAT, 2003) and especially in regions where the problem of slums is more severe, such as in Sub-Saharan Africa.

In regard to the high levels of fine particulate matter in cities, this is addressed in the 11th SDG. High levels of global GHG emissions are addressed in the 13th SDG, for which similar measures and policies need to be promoted. Each government, separately and as a part of a global partnership, should focus on the implementation of current universal frameworks on environmental protection and especially on air quality. At the same time, the promotion of better-quality fuels and their usage in the energy sector as well as in transportation is seen as particularly important (European Commission, 2019). Transition to renewable sources is vital in order to ensure the reduction of fine particulate matter and GHG emissions and a better environmental quality in general.

Overall, policy-makers should focus their attention on the range of global social and environmental problems as outlined in the SDG targets together with the challenges posed by the recent pandemic. Policies and strategies should not only focus on the improvement of problematic areas, but on sustaining the achievements that have been made so far. That is, there is a need to balance the three pillars of sustainability, ensuring good living conditions and personal welfare globally for present and future generations. To do so, global partnerships and coordinated actions are required for a successful path towards sustainability.

In addition to the examination of the progress made in meeting the SDGs, it is also important to examine whether this progress and the actions undertaken are sustainable. To achieve this, a measurement tool to measure a country's wealth is needed which does not only take into consideration resource flows but also includes reproducible, human and natural capital (Dasgupta et al., 2015).

The Inclusive Wealth Index (IWU) is an index that takes into consideration inclusive wealth when measuring the productive base of the economy rather than income measures, such as GDP. The index therefore focuses on an economy's stock and not on the flow of goods and services. Social capital is viewed as economic outcomes that can be measure. In this way, inclusive wealth of nations can be estimated and which can be particularly useful when measuring sustainability. Ideally, wealth and welfare should not decline across generations and over time if principles of sustainable development are adopted. The IWU can be used, among other things, to assess whether SDGs' progress is sustainable or not. The SDGs' progress can be considered sustainable when the actions undertaken to meet the goals lead to increased wealth. On the other hand, SDGs are considered unsustainable when wealth declines (Managi and Kumar, 2018; Managi, 2020).

National policy planning should therefore be based less on GDP growth and focus instead on inclusive wealth growth. As such, it should promote investment in human capital, natural capital, research and development and renewable energy (UNU-IHDP and UNEP, 2014). More specifically, for the energy sector it has been found that increased efficiency of energy consumption can result in inclusive wealth growth, highlighting the importance of a transition to renewable sources. Such a transition can then lead to a significant increase of wealth (Sugiawan and Managi, 2019).

4. Conclusions

The adoption of the 17 SDGs aims to tackle global social, economic and environmental problems and promote sustainable development in both developed and developing nations. The goals therefore address issues that have significant impacts on people's lives and well-being. Since 2015, the adoption of the 17 SDGs has put the world on a more sustainable trajectory, with the aim of achieving significant results by 2030.

This paper presents an overview of each individual goal, pointing out basic elements and the importance of their implementation. Their targets and indicators set by the United Nations are presented as is a trend analysis in order to monitor each goal's progress. Recent data regarding the global situation in respect of the goals is provided.

Based on this overview, as well as the United Nation's report on the SDGs (United Nations, 2020b), we can conclude that even though progress has been made in specific areas, such as the economic pillar, the world is not on track and still has a long way to go – especially in regard to social and environmental issues – in order to achieve the goals that have been set for 2030. The COVID-19 pandemic has not made the situation any easier: new challenges have appeared regarding human health, the economy and the whole society, making it far more difficult for the world to continue in a sustainable path.

Global collaboration is needed to promote strategies and policies that will assist in the progress of each SDGs, especially those that are still far from being achieved. In particular, further coordinated actions are needed to successfully address the COVID-19 pandemic so that the globe's path to sustainability is maintained and in this way social, economic and environmental problems are properly addressed and mitigated.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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