EMBRACING THE SUSTAINABLE DEVELOPMENT GOALS THROUGH CREATIVE ARTS

Project Partners:

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HODWORKS

SPAZJU KREATTIV

seven stories
The National Centre for Children's Books

COPERNICUS SCIENCE CENTRE

L-Università ta' Malta

Abstract

It is noticeable that throughout the last two decades, the Earth has been through great changes which have had great consequence, with most of them still being persistent till this very day. One such phenomenon worth noting is climate change, which is currently one of the most debated topics around the world. This issue leaves its impact both on the oceans and on land. The Earth has become hotter, more populous, and engulfed in heat-trapping gases. From wild weather patterns to rising sea levels and temperatures, and the melting of trillions of tons of ice sheets in Greenland and Antarctica, the world is changing rapidly, and the various repercussions are becoming more intense not only for the human population, but also for the near and distant natural habitats, which are home to millions of other species.

Apart from environmental concerns, there are other pressing matters relating to gender equality, quality education, and food security among others. Such difficulties may have a greater impact on some countries than others, and they may be more evident in some nations and cultures.

A total of seventeen Sustainable Development Goals were established in 2014 by the United Nations. These goals form a network of targets as a connection to multiple goals to be achieved by 2030.

This research will provide more information about the meaning of the sustainable development goals (SDGs), while more focus will be drawn to three particular goals:

- SDG 4 Quality Education: to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all;

- SDG 5 Gender Equality: to achieve gender equality and empower all women and girls;

- SDG 14 Life below Water: to conserve and sustainably use the oceans, seas, and marine resources for sustainable development.

To realize the SDGs in whatever context, all of society's creativity, know-how, technology, and financial resources are required. Throughout this three-year Erasmus+ Project, all project partners worked towards developing innovative and engaging activities and resources which would enrich and enhance one's understanding of how we can support the achievement of these goals.

The target audience of the developed resources spans from children of five years up to sixteen-year-old youths. As the name of this project implies, our aim is for the SDGs to be taken up through creative arts. The selected artistic approaches are storytelling, digital gaming, and dance. This research gives an overview of the various resources involved in the three selected artistic channels which are already available on the market. Moreover, the research provides the reader with some background on each of the three selected goals, whilst presenting them in conjunction with current case studies; in order to make it easier to link these goals to the challenges the world is presently facing.
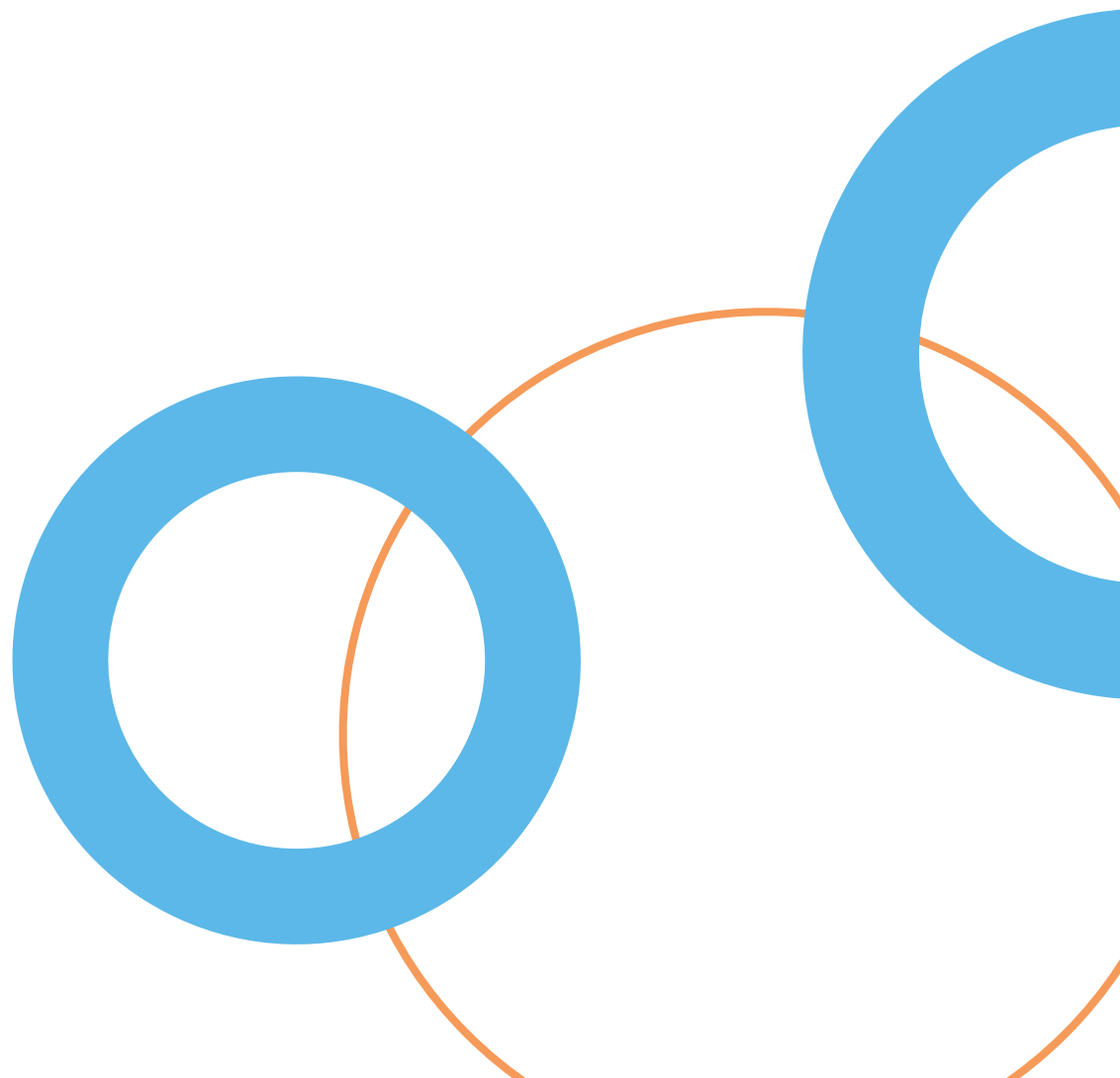
Table of Contents

List of tables

Introduction

The Sustainable Development Goals (SDGs) are the blueprint for the achievement of a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, inequality, the climate, environmental degradation, prosperity, peace, and justice. As the selected SDGs interconnect and leave no one behind, global citizens and their governments will be expected to achieve each goal and target by 2030.

Adopted by all United Nations Member States in 2015, these goals are a call to action for all countries whether they are poor, rich, or middle-strata countries, promote prosperity while protecting the planet. They recognize that ending poverty must go together with strategies that contribute to economic growth whilst addressing a range of social needs, including education, health, social protection, equality of opportunity, and job prospects. This will be conducive to promoting steps towards climate change and environmental sustainability.

Sustainable development can be defined as progress that meets the needs of the present without compromising the ability of future generations to meet their own needs. This definition was constructed two decades ago, and is based on three main pillars: social progress, economic growth, and ecological responsibility. These three dimensions are all interlinked; if even just one of these three is missing, sustainability will inevitably be jeopardized. The social dimension is concerned with equity and the problems connected with poverty and discrimination: the economic dimension is associated with production and consumption models, and the performance of the economic and financial system, and finally the environmental dimension is associated with the state of the environmental systems, such as the atmosphere, geosphere, hydrosphere, and biosphere.

Since the beginning of the 21st century, however, different societal actors started questioning the validity of the present definition of sustainable development by arguing

that the three dimension approach still does not reflect all the dimensions of our global societies and they propose the addition of a fourth dimension (UCLG, 2010): intercultural responsibility, which takes into consideration the sociocultural aspects of the place where development occurs, as well as recognizing the intertwining cultural dynamic.

The Sustainable Development Goals: An Overview

No Poverty

End extreme poverty in all forms by 2030.

In 2000, the world committed to halving the number of people living in extreme poverty by the year 2015 and met this goal. However, more than 800 million people around the world still live on less than $1.25 a day. It is time to build on what we have learned and end poverty altogether.

Zero Hunger

End hunger, achieve food security and improved nutrition and promote sustainable agriculture by 2030. In the past 20 years, world hunger rates have dropped by almost a half. Many countries that used to suffer from famine and hunger can now meet the nutritional needs of their citizens. Now we can go further and end hunger and malnutrition once and for all.

Good Health and Well-Being

Ensure healthy lives and promote well-being for all citizens irrespective of age. This goal is to make sure everyone has health coverage and access to safe and, effective medicinal and vaccinal treatment. In the 25 years before the SDGs, we made immense strides; preventable child deaths dropped by more than a half, and maternal mortality went down by almost as much.

Quality Education

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Since 2000, there has been enormous progress in the goal to provide primary education to all children worldwide to the point that the total enrolment rate in developing regions in 2018 reached 86%. The goal is to achieve universal primary and secondary education, affordable vocational training, access to higher education and more.

Gender Equality

Achieve gender equality and empower all women and girls. The world has made great progress in becoming fairer and more prosperous, but the quality of life for women and girls still lags behind. There are still gross inequalities in work and wages, a lot of unpaid "women's work" such as childcare and domestic work, coupled with discrimination in public decision-making. However, there are more girls in school now compared to 2000 and some of the wages are rising. The SDGs aim to build on these achievements.

Clean Water and Sanitation

Ensure the availability and sustainable management of water and sanitation for all by 2030. While many people take clean drinking water and sanitation for granted, many others do not. Water scarcity affects more than 40% of the people global population. If we continue on this path we are on, at least one in four people will likely be affected by recurring water shortages by 2050.

Affordable and Clean Energy

Ensure access to affordable, reliable, sustainable, and modern energy for all. As the world's population continues to grow, even more people will need cheap energy to light their homes and streets, use phones and computers, and carry on with their everyday business. Fossil fuels and greenhouse gas emissions are drastically impacting the climate, leading to irreparable consequences in every continent.

Decent Work and Economic Growth

Promote sustainable, inclusive, and sustained economic growth, full and productive employment, and decent work for all by 2030. Job growth is not keeping pace with the growing labour force so we need to promote policies that encourage entrepreneurship and job creation. We can eradicate forced labour, debt bondage, and human trafficking.

Industry, Innovation, and Infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Technological progress helps us address big global challenges such as creating jobs and becoming more energy efficient. The world is becoming more interconnected through the internet and yet, four billion people most of whom are located within developing countries have no means of gaining online access.

Reduced Inequalities

Reduce inequality within and among countries by breaking down the perception that the rich get richer, while the poor get poorer. We need to improve the regulation of financial markets and institutions, sending developmental stimulus where it is most needed and help people migrate safely so they can pursue opportunities.

Sustainable Cities and Communities

Make cities and human settlements inclusive, safe, resilient, and sustainable. More than half the world's population now lives in cities – and 40% live in locations at risk of rising sea levels. This can be combated by creating safe, affordable, and sustainable public housing. Many homeless people cannot find a job simply because they have no place to stay. We can transform slum areas, invest in public transport, create green spaces, and get a broader range of people involved in urban planning decisions.

Responsible Consumption and Production

Ensure sustainable consumption and production patterns. We can manage our natural resources more efficiently and dispose of toxic waste better. The food waste generated globally per capital can be cut in half globally. We need to get businesses and consumers to reduce and recycle waste and help countries move to more responsible resource consumption. In fact, a recent news article has shed light on England's food strategy and its enforcement which aims to cut down the consumption of meat, irresponsible farming and their devastating effects on the environment (Carrington, 2021).

Climate Action

Take urgent action to combat climate change and its impacts. We can reduce loss of life and property by helping more vulnerable regions such as land-locked countries and island states become more resilient.

Life below Water

Conserve and sustainably use the oceans, seas, and marine resources for sustainable development. The oceans including their temperature, chemistry, currents, and life forms make human life possible. More than three billion people depend on marine and coastal diversity.

Life on Land

Protect, restore, and promote the sustainable use of terrestrial ecosystem; sustainably manage forests; combat desertification; halt and reverse land degradation and half biodiversity loss. Humans and other animals rely on other forms of life on land for food, clean air and water, and as a means of combatting climate change. The SDGs aim to conserve and restore the use of terrestrial ecosystems such as forests, wetlands, drylands, and mountains by 2030.

Peace, Justice and Strong Institutions

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable, and inclusive institutions at all levels. The SDGs aim to reduce all forms of violence and propose that governments and communities find lasting solutions to conflict and insecurity. That means strengthening the law, reducing the flow of illicit arms, and bringing developing countries more into the centre of institutions of global governance.

Partnerships for the Goals

Strengthen the means of implementation and revitalize the global partnership for sustainable development. Just under 200 countries have agreed to work on these goals and that makes it the final goal: nations working together to achieve all other goals.

After providing a brief description of the 17 SDGs, the table below will give an overview of the main distinguishing features between sustainable and unsustainable practices (UNDP, n.d.; United Nations, n.d.; United Nations, 2015; United Nations, 2017; ILO, n.d.)

Table 1:

Main differences between sustainable and unsustainable development goals

Sustainable Practices	Unsustainable Practices
Aims to improve our quality of life on the basis of social and environmental factors as well as financial ones.	Aim only to raise our standard of living as is measured by welfare and happiness.
Sees economic, social, and environmental issues as being linked.	Assume that a healthy economy will automatically lead to a healthy society and a secure environment.
Acts on the needs of future generations as well as the needs of people today.	Mainly leave issues to do with the future-to-future generations to resolve.
Always consider the environment and its ability to support human activity.	Treat the environment as a luxury which is only to be protected if we can afford it.
Balance the importance of individual rights with joint responsibilities.	Focus mainly on individuals and their individual rights.
Decisions based on co-operation between experts and ordinary people, to meet people's needs.	Planned by experts and specialists for others.

Delving Deeper into SDG4- Quality Education

Obtaining a quality education is the foundation for the creation of sustainable development. In addition to improving the quality of life, access to inclusive education can help equip locals with the tools required to develop innovative solutions to the world's greatest problems.

The reasons for the lack of quality education are due to shortage of adequately trained teachers, the poor conditions of schools, and equity issues related to opportunities provided to rural children. For quality education to be provided to the children of impoverished families, investment is needed in educational scholarships, teacher training workshops, school building and improvement of water and electricity access to schools. Achieving inclusive and quality education for all reaffirms the belief that education is one of the most powerful and proven vehicles for sustainable development.

The below are 10 targets to create action that ensures quality education by 2030:

Free primary and secondary education

Make sure that all girls and boys attend a free and impartial primary and secondary school which leads to relevant and effective learning outcomes.

Equal access to quality pre-primary education

Ensure that all girls and boys have equal entrance to quality early childhood development, care, and pre-primary education so that they are ready for primary education.

4 QUALITY EDUCATION

Ensure equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university education.

Increase the number of people with relevant skills for financial success

Substantially increase the number of youths and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship.

Eliminate all discrimination in education

Eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples, and children in vulnerable situations.

Universal literacy and numeracy

Ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.

Education for sustainable development and global citizenship

Ensure that all learners acquire the knowledge and skills needed to promote sustainable development, through education in sustainable development and lifestyles, human rights, gender equality, the promotion of a culture of peace and non-violence, global citizenship, and the appreciation of cultural diversity and culture's contribution to sustainable development, among others.

Build and upgrade inclusive and safe schools

Build and upgrade educational facilities that are child- disability- and gender- sensitive and provide safe, non-violent, inclusive, and effective learning environments for all.

Expand higher education scholarships for developing countries

Substantially expand the global number of scholarships available to developing countries for enrolment in higher education, including vocational training and information and communications technology, technical, engineering, and scientific programs.

Increase the supply of qualified teachers in developing countries

Substantially increase the supply of qualified teachers, including through the international cooperation for teacher training in developing countries.
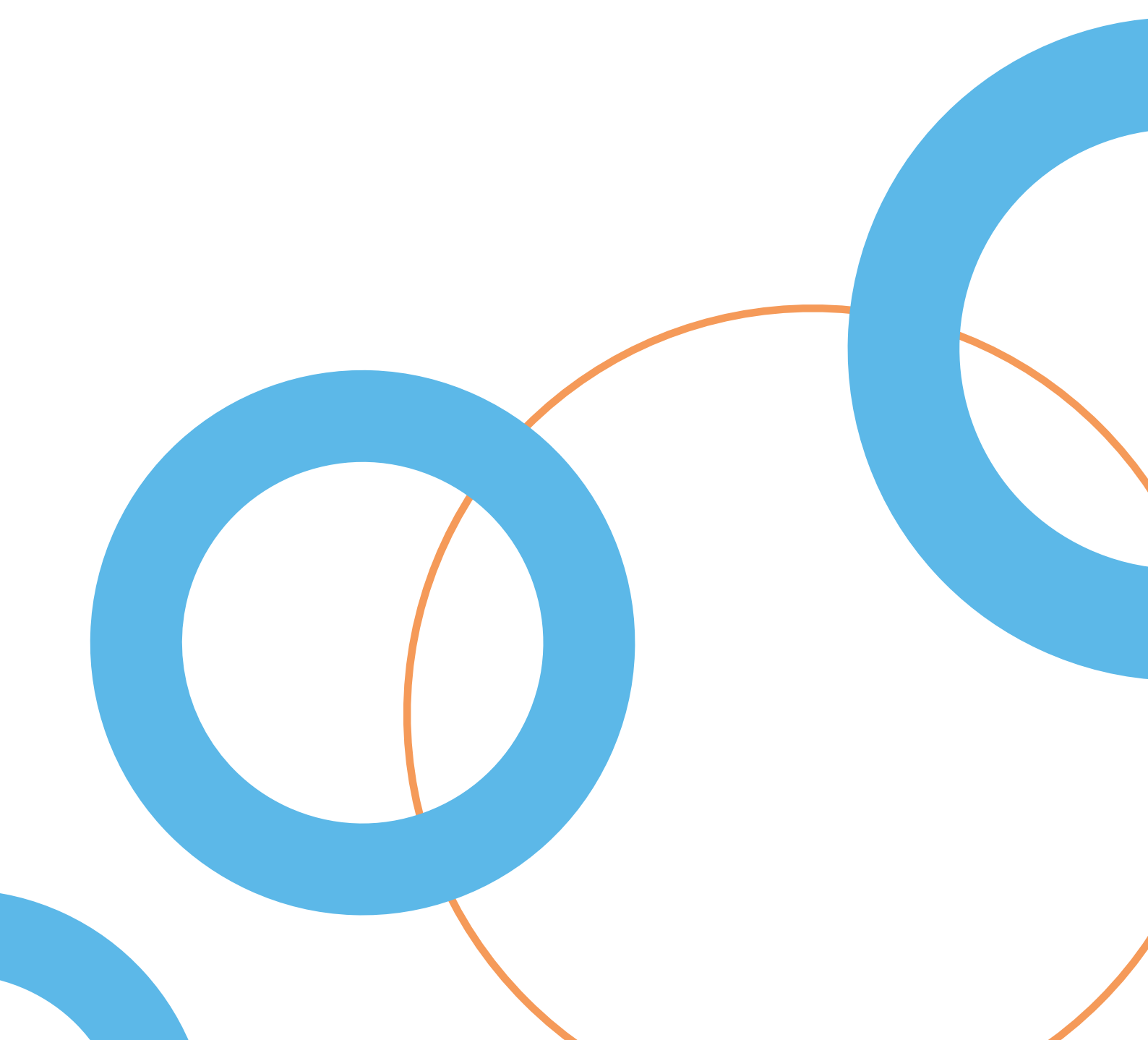
Case Scenario: Malala Yousafzai

Malala Yousafzai is famous for her courageous act of fighting for girls' right to equal education. Her approach reflects the main purposes of SDG 14, that is, the importance of safeguarding the rights of children and young people, particularly when one acknowledges that injustices perpetrated against children contribute to the spread of conflicts that will affect future generations.

Malala's active participation in combating child injustices and preserving girls' rights would be a product of her own past when she suffered an attack on her life by Taliban gunmen in 2012 (Nobel Media AB, 2019). In the same year, she spoke for the first time in public on behalf of all girls and their right to learn. Two years later, after a period of hospitalization in which she battled for her life due to the attack, she realized that she had a choice to make: either leading a quit life or else using her survival as an opportunity to work hard so that every girl could be given the chance to learn.

In 2014, Malala also received the Nobel Prize and became the youngers Nobel laureate. She then went on to study Philosophy, Politics, and Economics at the University of Oxford in 2018 to gain more tools and experience in her continued to create a world where all girls and women can learn, grow in their profession and lead in turn (Yousufzai, 2018). This iconic figure has also worked hard to debunk the persisting gender stereotypes and underrepresentation of women in managerial and administrative jobs (Holshouser, and Medina, 2021).

This case scenario clearly shows that Malala has been and is still acting as an agent of change in a world where girls are still being punished and discriminated against when they dare ask for freedom of expression and equality. She is a potent symbol for the necessity of improving the lives of girls and making education and sexual self-determination available to them on a global level. Her courage and perseverance in challenging the status quo should act as a motivating agent for more girls to stand up and fight for what they truly believe in (Glyde, 2015).

Delving Deeper in SDG5 Gender Equality

Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous, and sustainable world. Concurrently, one in five women and girls between the ages of 15-49 have reported experiencing physical or sexual violence by an intimate partner within a 12-month period.

Currently, 49 countries have no laws protecting women from domestic violence. Progress has occurred in fighting against harmful practices such as child marriage and FGM (female genital mutilation), which has declined by 30% in the past decade, but there is still much work to be done to completely eliminate such practices. Only 52% of married women or women in a similar union freely make their own decisions about sexual relations, contraceptive use and health care such as their sexual health.

While women have made important inroads into political office across the world, their representation at 23.7% in national parliaments is still far from parity. However, in 46 countries, women now hold more than 30% of seats in national parliament in at least one chamber. Furthermore, over 100 countries have taken action to track budget allocations for gender equality.

For example, in Bangladesh, the labour force participation of rural women is only 36.4% compared to 83.3% for men. Creating employment and income-generating opportunities for women and enhancing their access to social protection will help reduce such gender disparities.

Providing women with equal access to education, health care, decent work, and representation in political and economic decision-making processes will fuel sustainable economies and benefit societies and humanity at large. The implementation of new legal frameworks regarding female equality in the workplace and the eradication of harmful practices targeting women are crucial to ending the gender-based discrimination prevalent in many countries around the world while such steps will also empower women to act against societal inequalities.

The following are nine targets aimed at raising more awareness on the importance of gender equality in current societies:

End discrimination against women of all ages

End all forms of discrimination against all women and girls everywhere.

End all violence against and exploitation of women

Eliminate all forms of violence against all women in the public and private spheres, including trafficking and sexual exploitation, among others.

Eliminate forced marriages and genital mutilation

Eliminate all harmful practices, such as, early and forced marriage and FGM.

Value unpaid care and promote shared domestic responsibilities

Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

Ensure full participation in leadership and decision-making

Ensure women's full and effective participation in and equal opportunities for leadership at all levels of decision-making in socio-politico-economic life.

Universal access to reproductive health and rights

Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development the Beijing Platform for Action and the outcome documents of their review conferences.

Equal rights to economic resources, property ownership, and financial services

Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance, and natural resources, in accordance with national laws.

Promote the empowerment of women through technology

Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.

Adopt and strengthen policies and enforceable legislation for gender equality

Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.
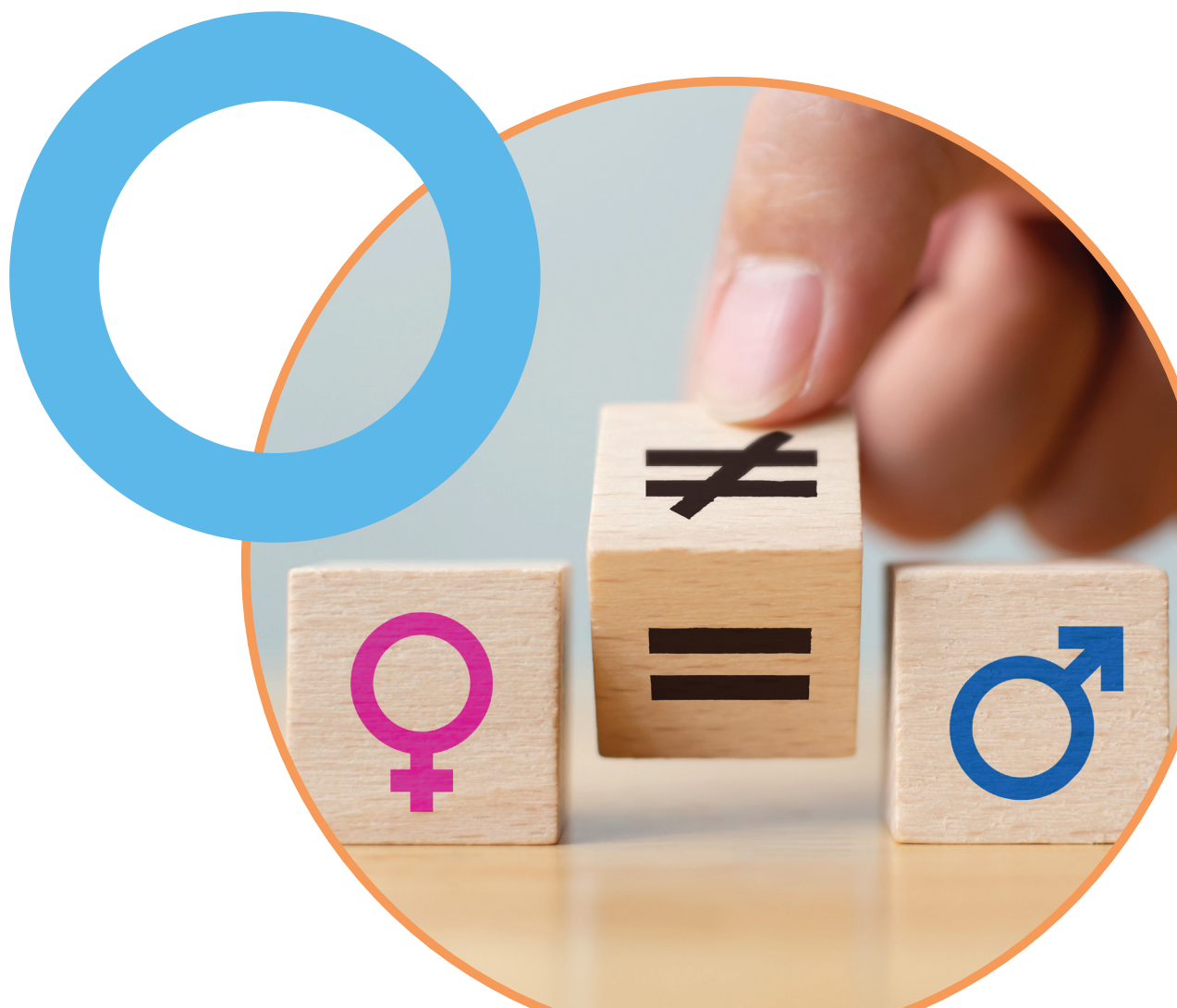
14 LIFE
BELOW WATER
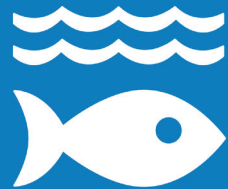
Delving Deeper into SDG14 Life below Water

Healthy oceans and seas are essential to our existence. They cover 70% of our planet, and we rely on them for food, energy, and water. Yet, we have managed to do tremendous damage to these precious resources. We must protect them by eliminating pollution and overfishing and immediately start to responsibly manage and protect all marine life around the world to ascertain a sustainably environmental future for all forthcoming generations.

Over three billion people depend on marine and coastal biodiversity for their livelihoods. However, today we are seeing 30% of the world's fish stocks overexploited, reaching below the level at which they can produce sustainable yields.

Oceans also absorb about 30% of the carbon dioxide produced by humans, and we have seen a 26% rise in ocean acidification since the beginning of the industrial revolution. Marine pollution, an overwhelming majority of which comes from land-based sources, is reaching alarming levels, with an average of 13,000 pieces of plastic litter to be found on every square kilometre of ocean.

The table that follows provides a statistical overview of some of the most important facts and figures related to this SDG.

Table 2

 SDG 14 – Main Facts and Figures

Table 1

SDG14- Life below water: Important Facts and Figures	
75% The ocean covers three quarters of the Earth's surface and represents 99% of the living space on the planet by volume.	**200,000** The ocean contains nearly 200,000 identified species, but actual numbers may lie in the millions.
40% As much as 40% of the ocean is heavily affected by pollution, depleted fisheries, loss of coastal habitats and other human activities.	**30%** The ocean absorbs about 30% of carbon dioxide produced by humans, buffering the impact of global warming.
3 BILLION More than three billion people depend on marine and coastal biodiversity for their livelihoods.	**US$3 TRILLION** The market value of marine and coastal resources and industries is estimated at US$3 trillion per year, about 5% of the global GDP.

On a final note, SDG 14 aims to sustainably manage marine and coastal ecosystems and protect them from pollution, as well as addressing the impacts of ocean acidification. Enhancing conservation and the sustainable use of ocean-based resources through international law will also help mitigate some of the challenges facing our oceans.

Link between SDG 14 Life below Water and Water Pollution

SDG 14 is directly linked to water pollution since it directly calls for a diminution in marine pollution, which can be achieved with effective water pollution control. The relevant literature asserts that 80% of marine pollution comes from land-based activities, such as agricultural run-off, untreated sewage, waste and the discharge of nutrients and pesticides (Group of Experts on the Scientific Aspects of Marine Environmental Protection, 2015). Moreover, as mentioned elsewhere throughout this literature review, declining marine and coastal water/sediment quality is a resultant of land pollution (Williams, 1996). The main causes of the elevation of water pollution are:

- **Point sources** – specific locations where pollutants are discharged, such as pipes, and
- **Non-point sources** – sources that cannot be traced back to a single discharge site: such as the run-off from paved areas and construction sites to name a few. These sources mainly originate in industrial, agricultural, and domestic places.

In addition, research documents reveal that water can be polluted in diverse ways including but not limited to the following:

Pathogenic organisms
Common disease-causing organisms introduced into natural water bodies especially from untreated sewage or surface runoff from intensive livestock grazing. Two of the most common disease agents are Giardia lamblia and Escherichia coli.

Oxygen demanding wastes

Food waste and dead plant and animal tissue that consume oxygen dissolved in water during its degradation, thus depleting the oxygen required for the survival of fish and, other marine animals and plants. This leads to oxygen becoming a limited resource rather than the norm in which oxygen is available for all organisms.

- Oxygen is added to the water by diffusion from the air and by photosynthetic organisms.
- Oxygen is removed from water mostly by respiration.
- One way of reducing the problems causes by oxygen demanding wastes is sewage treatment.

The addition of organic waste in the water stimulates the activity of decomposers – leading to a reduction in the amount of dissolved oxygen.

Eutrophication

Excessive richness of nutrients, such as nitrogen and phosphorus in a lake or other body of water, frequently due to land run-off, which causes a dense growth of plant life. Eutrophication can have devastating impacts on the environment, including the destruction of coral reefs, a lower percentage of dissolved oxygen in the ocean, and the formation of oxygen-depleted waters. These in turn could lead to ecosystem collapse.

In addition, eutrophication is usually used to describe the resultant increase in excessive plant growth and decay. Despite being a natural process, human malpractices can greatly accelerate its repercussive effects, particularly by increasing algal blooms and reducing water quality.

Toxic inorganic materials

Chemical toxicants include inorganic substances such as: lead, mercury, hydrofluoric acid, and chlorine gas, as well as organic compounds such as methyl alcohol, most medications, and poisons from living things.

- Heavy metals
- Non-metallic salts
- Acids and bases

Organic chemicals

A broad class of substances containing carbon and its derivatives.

The most important sources of toxic organic chemicals are:

- The improper disposal of household and industrial waste.
- Runoff of pesticides from farm fields and golf courses.
- Oil spills resulting in the death of fish and oil sticking to the feathers of sea birds.
- Leaking gas storage tanks.
- PCBs – polychlorinated biphenyls.

Sediment

Sediment makes up the largest volume of water pollution in the world. Rivers have always carried sediment by erosion, but humans have accelerated the process through deforestation, as soil loses the root binding capacity of trees.
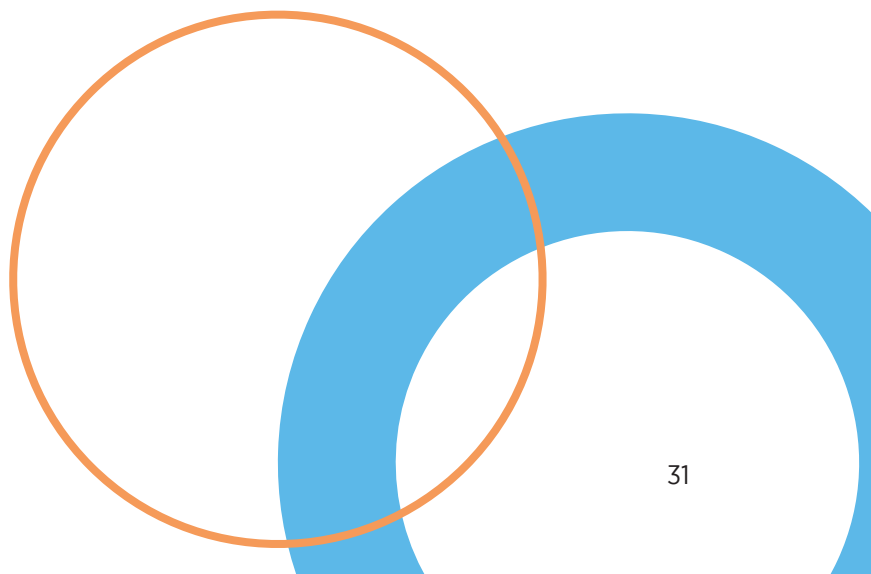
Thermal pollution

The degradation of water quality by any process that changes ambient water temperature. Raising or lowering temperatures from normal levels can adversely affect water quality and aquatic life.

- Oxygen solubility in water decreases as temperature increases.
- Humans cause thermal pollution due to vegetation and runoff patterns.
- Fossil fuel and nuclear power plants affect thermal pollution.

The 10 main targets and indicators outlined by The Danish Institute for Human Rights and how they seek to promote action towards the conservation and sustainable use of oceans, seas, and marine resources.

As postulated in this guide, the below list of targets and indicators is not comprehensive and subject to change and hence, the description for each indicator is kept minimal (Feiring, 2019).

Reduce marine pollution

Goal Description: By 2025, prevent and significantly reduce marine pollution of all kinds, ranging from marine debris to nutrient pollution.

Data Management Tools: ICESCR, Escazú Agreement, ADRDM, Protocol of San Salvador, ACHPR, Maputo Protocol, CBD, and UNCLOS.

Protect and restore ecosystems

Goal Description: By 2020, sustainably manage and protect marine and coastal ecosystems by strengthening their resilience to avoid significant adverse impacts in addition to the use of other strategies and act for their restoration to achieve healthy and productive oceans.

Data Management Tools: ICCPR, ICESCR, UNDRIP, Escazú Agreement, Protocol of San Salvador, ACHPR, Maputo Protocol, CBD, UNCLOS, Ramsar Convention, and UNFCCC.

Reduce ocean acidification

Goal Description: By 2030, minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.

Data Management Tools: ICESCR and Escazú Agreement.

Sustainable fishing

This indicator measures the proportion of global fish stocks which are over, fully, or not fully exploited. Sustainable levels of fish stocks are those which are under or fully exploited, whereas overexploited fish stocks are unsustainable. A fish stock with abundance equal to or above the maximum sustainable yield (MSY) is classified as biologically sustainable but when abundance falls below the MSY level, the stock is considered biologically unsustainable.

Goal Description: By 2020, effectively regulate harvesting: end overfishing and illegal, underreported, and unregulated fishing and destructive fishing practices; and implement science-based management plans, to restore fish stocks in the shortest time feasible at least to levels that can produce MSY as determined by their biological characteristics. Further data on global and national fishing and seafood production can be found in the Our World in Data entry (Ritchie and Roser, 2019).

Conserve coastal and marine areas

Marine areas, specifically those of special scientific interest and high biodiversity, are often reserved and protected within national and international law. This indicator measures the share of territorial waters which are reserved by this protection.

Goal Description: By 2020, conserve at least 10% of coastal and marine areas, consistent with national and international law and based on the best available scientific information. Supporting data can be obtained by analysing the number of fish species being threatened by global warming across the globe. For instance, in Europe and Central Asia alone, over 1000 fish species were threatened in 2017 (Ritchie and Roser, 2021).

End subsidies contributing to overfishing

Goal Description: By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing; eliminate subsidies that contribute to illegal, undocumented, and unregulated fishing; refrain from introducing similar new subsidies; and recognise, that the appropriate and effective special and differential treatment of developing and least developed countries should be an integral part of the World Trade Organisation fisheries subsidies negotiation.

Data Management Tools: In July 2016, UNCTAD, FAO and UNEP joined forces to propose a roadmap to end subsidies – a statement which was supported by more than

90 member States. This joint statement calls on member States to address certain subsidies that contribute to overcapacity, overfishing and IUU fishing. The roadmap is based on four main plans which respectively:

1. demand participating countries to provide substantive information on what subsidies they are providing;
2. forbid those subsidies which contribute to overfishing and illegal fishing;
3. introduce new policies to prevent the introduction of new harmful subsidies; and
4. provide special and differential treatment to developing countries.

The UNCTAD-FAO-UNEP statement was fully supported by several Member States which are seeking to reinforce it and advance in the implementation of trade-related aspects of SDG 14.

Since the beginning, UNCTAD and partners have been supporting the implementation of SDG 14.6 and building a positive outcome in WTO fish subsidies negotiations by enabling open and outside negotiation dialogue and by undertaking research and capacity-building activities under its Oceans Economy and Fisheries Program.

A new impetus was provided by the WTO Buenos Aires Ministerial Decision on Fisheries Subsidies which mandated the continuation of negotiations on fisheries subsidies based on emerging consolidated non-attributable texts (SDG Knowledge Hub, 2017). Multiple texts have also been put forward by different Chairs of the Fish Subsidies Negotiations and relevant facilitators over the last two years. The decision also set a deadline for the conclusion of negotiations by 2019, which would ensure meeting the SDG 14.6 deadline of 2020.

While the 2019 deadline was not met, Member States are still committed to delivering a comprehensive agreement on fish subsidies by the end of 2020 or by the next WTO in 2021. UNCTAD remains committed to supporting Member States and the WTO in this process and to providing the necessary complementary technical assistance to

developing countries for the implementation of a future negotiating outcome (UNCTAD, n.d.).

SDG14: Increase the Economic Benefits from the Sustainable Use of Marine Resources

Goal Description: By 2030, increase the economic benefits to Small Island Developing States and least developed countries from sustainable use of marine resources, including through the sustainable management of fisheries, aquaculture, and tourism.

Data Management Tools: In 2021, a research study was conducted and aimed at investigating a new technological device to generate data related to ships, satellites, and in-flight remote sensing. This is known as marine big data, and it is expected to grow at an overwhelming speed across the world. Several developed and developing economies across the globe are investing huge amounts in the marine sector and have launched noteworthy projects such as NEPTUNE, Argo, and GOOS, to name a few, along with numerous marine observation satellites.

As multiple marine observing techniques, and various marine systems are integrated into the marine services, this leads to an increase in data volume, which forms marine big data. The marine data generated and collected is valuable and contains specific progressive and multi-dimensional information. Such valuable information would raise more awareness of the importance of preserving marine ecosystems for humanity's future economic prosperity (Maximize Market Research, 2020).

Increase scientific knowledge, research, and technology for ocean health

Goal Description: By 2030, increase scientific knowledge, develop research capacity, and transfer marine technology by considering the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology to improve ocean health and enhance the contribution of marine biodiversity to the development of developing countries, in particular Small Island Developing States and least developed countries.

Data Management Tools: To identify the key priorities of investing in more scientific research related to ocean health, the EU has funded and launched a project entitled SOPHIE in 2017. The project aims to build a varied network of specialists who want to improve the health of both the oceans and populations across Europe and beyond by altering harmful behaviours and encouraging sustainable activities. The project shed light on the intermingling relationship between the health of our coasts, seas, and oceans, and the health and well-being of humans, plants, and animals.

For years, the ocean has been used as a means of transportation and recreation, and as a source of food and raw materials. This project aimed to comprehend these connections to construct new research capabilities for this emerging scientific discipline of oceans and human health. From the outset, the project highlighted three critical issues: the need for sustainable seafood; the benefits to physical and mental health through interactions with healthy blue spaces that are sustainably managed; and the importance of marine biodiversity to medical and biotech research.

The project has done its part by bringing together marine and environmental scientists with medical and social scientists as well as public health experts, whilst an Oceans and Human Health Network was created, through the social media platform, LinkedIn, to mediate knowledge sharing between interested parties. Additionally, a citizen-based survey was carried out to better comprehend public perceptions of how marine issues affect human health and wellbeing.

One of the main accomplishments of this project has been the creation of a network of people and organizations interested in the links between oceans and human health. This facilitated further collaborative research into understanding the complex and critical relationship between humans and the ocean.

Furthermore, the project information is now readily available online, which can help to inspire experts and citizens alike. This includes the results of the citizen survey, as well as various interactive maps. For example, the project mapped innovation activities that combine marine conservation with human health and well-being across Europe and beyond (European Commission, 2021).

Support small-scale fishers

Goal description: By 2030, provide access for small-scale artisanal fishers to marine resources and markets.

Data Management Tools: Data shows that wild fishery catch for industrial purposes reached nearly 80 million tons in a 60-year period as opposed to 20 million tons (Our World in Data, 2010). This worrisome situation has been further reinforced during the current pandemic, during which small-scale fisheries have experienced several negative consequences including complete shutdowns, market disruptions, higher health risks, marginalization, heightened vulnerabilities, and increased illicit fishing.

This called for governments, development organizations, NGOs, donors, the private sector, and researchers to rapidly mobilize in support of small-scale fishers and coastal fishing communities (Bennett et al. 2020). The latter may be made possible if:

- workers are protected, supply networks are safeguarded, social and health services are enhanced, economic relief is provided, and small-scale fisheries (SSFs) are prioritized for reopening;

- NGOs pool information, mobilize financial and human resources, aid market growth, advocate for SSFs, coordinate actions and protections, source from SSFs, and secure market access;

- donors look for ways to help, re-focus funding programs, are flexible with already committed monies, and direct monies to SSFs;

- workers' safety is ensured by the private sector, which can also increase social safeguards, sourcing from SSFs, and secure market access, and;

- researchers look at societal implications, come up with solutions, disseminate recommendations, advocate for change, and refocus research initiatives and finances.

Implement and enforce international sea law

Goal Description: By 2030, enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea.

Data Management Tools: In line with international sea laws, a research project entitled 'Accommodating New Interests at Sea: Legal Tools for Sustainable Ocean Governance' (SUSTAINABLEOCEAN) aimed to offer a theory of interest- and regime-interaction in ocean governance. The research question is: how can the law contribute to the sustainable use of the oceans and strike a balance between competing interests at sea? The project focuses on the interplay between the law of the sea, climate change law and energy law. Research was funded by the European Research Council (ERC Starting Grant) and ran from 2015 through 2020 (Utrecht University, n.d.). Additionally, statistical data published by UNCTAD between 1971 and 2015 has shown that the number of parties in Multilateral Environmental Agreements related to safeguarding and enforcing the International Law of the Sea experienced an exponential increase between 1982 and 2015, and it is expected to increase in the coming years (United Nations Treaty Collection, 2016).

Creating Awareness about Sustainable Development through Storytelling

Storytelling is an effective research method to increase awareness of activism aimed at promoting sustainable development principles. 'Stories of Progressive Institutional Change: Challenges to the Neoliberal Economy' uses storytelling to demonstrate how social movements have shaped a variety of institutions to achieve sustainable development goals for human well-being and ecological balance.

Eight short stories of progressive institutional change depict the importance of human agency in responding to institutional rigidities, overcoming invidious distinctions, and transforming values, habits, and customs. Social movements are altering economic institutions to make them fit with sustainable development, from coffee to tomatoes, retail to restaurants, marriage to higher education, banking to GDP. Institutional change that is progressive places long-term thinking is, thinking geared towards human, environmental, financial, and productive sustainability the centre of economic processes (Figart, 2017).

Nowadays, there are countless children's books that revolve around the importance of sustainability. One of them is *The Lorax* by Dr. Seuss, which was also turned into a film in 2012. Long before saving the Earth became a global concern, Dr. Seuss, speaking through the character of the Lorax, warned against mindless progress and the danger it posed to the Earth's natural beauty (Dr. Seuss, 1998). Since the publication of this book, there has been a substantial increase in the number of books aimed at raising awareness amongst children of the importance of preserving the environment and acting sustainably. Hereunder, one can find a list of another 19 children's books that show the importance of sustainability. However, the list is not comprehensive and subject to change as more and more books become published and gain the popularity that they deserve.

The Earth Book by Todd Parr

According to Todd Parr, by doing small changes every day, we would be caring for the environment. He examines the crucial and urgent issue of environmental protection and conservation in this eco-friendly picture book with his characteristic blend of playfulness and compassion. An inside gatefold with a poster with tips/reminders on how kids may "go green" every day is included in the book. (Parr, 2010)

Biscuit's Earth Day Celebration by Alyssa Satin Capucilli

Join Biscuit as he contributes to the preservation of our natural environment. Biscuit's celebration is a thrilling experience on Earth Day and every day, from sowing seeds to cleaning up! (Satin Capucilli, 2010)

It's Earth Day by Mercer Mayer

Little Critter has a task to complete! Little Critter chooses to do his part to slow down global warming after hearing a film about climate change at school. Little Critter starts reducing, reuse, and recycling with the support of his family and friends. They learn how to conserve water and energy as a group. Join Little Critter as he installs a tree, creates a climate control device, and assists the polar bears. (Mayer, 2008)

The Giving Tree by Shel Silverstein

"Once upon a time, there was a tree... and she adored a small boy." The boy would come to the tree every day to eat her apples, swing from her branches, and slide down her trunk... The tree, on the other hand, was overjoyed. However, as the boy grew older, he began to expect more from the tree, and the tree responded by giving more and more.

This is a touching narrative, tinged with melancholy yet brimming with hope. Shel Silverstein has written a compelling parable for readers of all ages that offers an affecting interpretation of the gift of giving as well as a peaceful acceptance of another's potential to love in return. (Silverstein, 1964)

Big Earth, Little Me by Thom Wiley

This book with flaps, printed with organic soy-based ink, inspires young readers by giving them 10 easy, daily ways to preserve the earth! The book is inspirational because it teaches young readers that if they are persistent and resilient, they will be able to protect the earth. (Wiley, 2009)

Big Bear Hug by Nicholas Odland

Welcome to the world of Big Bear Hug, a modern story about a bear with a voracious appetite for hugging everything in sight, including animals that bears are known to eat. The compassionate bear runs into a human one day. The latter then does something the bear doesn't understand; he raises his axe and begins felling a tree. Suddenly, the bear no longer wants to embrace anyone, and must make a difficult choice about how to stop the destruction in his forest. Big Bear Hug's environmental message is both amusing and powerful, while being simple enough to engage very young children and demonstrate the incredible power of a hug. (Odland, 2009)

The Tiny Seed by Eric Carle

A strong wind blasts flower seeds high into the air and carries them throughout the land in the autumn. Many of the seeds are lost one by one, either by being scorched by the sun, falling into the ocean, or being eaten by a bird. Some, however, survive the long winter and emerge as plants in the spring, where they face new hazards, such as being trampled by youngsters or being picked as a present for a friend. Only the tiniest seed survives, blossoming into a massive bloom and, when fall arrives, scattering its own seeds into the wind to restart the cycle. (Carle, 2001)

Compost Stew by Mary McKenna Siddals

Readers will learn about the essential elements for a successful compost pile, from apple cores to zinnia heads! Children all throughout the world are aware of environmental issues and climate change. Composting is becoming more widespread not only in households and private gardens, but also in many school gardens. But where do you begin with a compost pile? What can you safely include? (Siddals, 2010)

Listen, Listen by Phyllis Gershator

The book's beautiful images and rhyming lyrics provide a sensory experience for children. This is because the book delves into the sights and sounds of nature in each season of the year, as well as what distinguishes them from one another. (Gershator, 2007).

Emeraldalicious by Victoria Kann

Pinkalicious, the book's main character, uses magic, love, and imagination to transform an ordinary location into an Emeraldalicious paradise. Pinkalicious and her pal Peter go to their favorite park, but Pinkalicious' wand breaks on the way. She is unconcerned since she knows exactly what to do. She makes a magical wand out of a stick, some vines, and a unique flower.

The park is covered in stinking trash when Pinkalicious and Peter arrive! But fear not, Pinkalicious is come to transform the rubbish into an Emeraldalicious paradise with her magical wand, tons of love, and pinktastic rhymes. (Kann, 2013)

The Berenstain Bears Go Green by Jan Berenstain and Mike Berenstain

The Berenstain Bears dwell in a beautiful place with lots of green grass, blue skies, and cuddly pals. The Bear family, however, discovers the town dump is overflowing during a fishing trip to the creek. Will the Berenstain Bears be able to find a solution to pollution before their beautiful Bear Country becomes littered? (Berenstain and Berenstain, 2013)

The Barefoot Book of Earth Tales by Dawn Casey

Young readers will discover about how many civilizations across the world live in harmony with nature's cycles and patterns in this lovely anthology of folktales. Following the simple eco-tips and participating in some of the fun and creative activities that accompany each story, they will learn how to tread lightly on our beloved Earth. Children will learn how residents of the Kingdom of Benin deep within the Nigerian rainforest consume less and conserve more; how the Comanche Indians respect Mother Earth by giving more than they receive; and how everything in nature is connected among Bali's coral reefs and volcanic mountain peaks. (Casey, 2009)

Me…Jane by Patrick McDonnell

Patrick McDonnell narrates the story of little Jane Goodall and her childhood toy chimpanzee named Jubilee in his unique endearing style. Jane dreams of "a life living with and helping all animals" as she marvels at the natural world around her, until one day she discovers that her wish has come true. McDonnell makes this very genuine narrative understandable for the very young—and young at heart—with vignettes adapted directly from Jane Goodall's autobiography. (McDonnell, 2011)

A Leaf Can Be by Laura Purdie Salas

The book delves into the multifaceted aspects of leaves, including their structure as well as their function and involvement in ecosystems. The book takes a poetic approach to the subject, exploring the many functions of leaves and how they vary from year to year. (Purdie Salas, 2012)

Rah, Rah, Radishes! A Vegetable Chant by April Pulley Sayre

The interactive nature of this book encourages children to join in the read-aloud fun, and young children will be unable to resist the book's bright photographs—they are a visual feast! The book also tries to educate children on the benefits of eating vegetables and leading a healthy, balanced lifestyle. (Pulley Sayre, 2011)

Life in the Ocean: The Story of Oceanographer Sylvia Earle by Claire A. Nivola

When Sylvia Earle was a young child, she fell in love with the water after discovering the beauties of the Gulf of Mexico in her own neighbourhood. She goes even further as an adult. Sylvia Earle has committed her life to learning more about what she calls "the blue heart of the planet," whether it's developing submersibles, swimming with whales, or taking deep-water walks. With wonderfully detailed photographs of the wonders of the sea, this book tells the narrative of Sylvia's increasing passion for the ocean and how her ocean research and activism have earned her a global celebrity. (Nivola, 2012)

And Then It's Spring by Julie Fogliano

After a snowy winter, a small boy and his dog decide they've had enough of all the brown and decide to start a garden. They dig, plant, play, and wait... and wait... till, at long last, the brown turns a more hopeful shade of brown, a sign that spring is approaching. (Fogliano, 2012)

Step Gently Out by Helen Frost

The book's amazing close-up photographs and lyrical language appeal to children, encouraging them to be more aware of their surroundings. Throughout the book, the author asks thought-provoking questions, the most notable of which is: What would happen if you strolled very slowly and gazed very carefully at the natural world outside? Aside from that, towards the end of the book, readers will find a complete list featuring some of the names of some of nature's most fascinating species. (Frost, 2012)

Outside Your Window: A First Book of Nature by Nicola Davies

This beautifully illustrated book of poems sows an early love for nature in all its beauty and mystery, mixed with information and entertaining activities. From planting acorns or biting into crisp apples to exploring tide pools or reclining back and watching the birds overhead, the book captures all of the sights and sounds of a child's engagement with nature.

The book's ultimate message is that no matter what is outside the window (city streets or country meadows, for example), children will be inspired to explore the world around them, reminding them that the natural world is so close to us, just waiting to be discovered and respected. (Davies, 2012)

This list has provided a brief overview of the main narratives that have been published throughout the years which aim to inform children of the true meaning of sustainability and its importance in safeguarding the Earth. However, it is worth mentioning that a remarkable book in this regard which targets an adult audience; this is the world-renowned book written by Rachel Carson in 1962 – *Silent Spring*. Even though, the book was written in the early sixties, it still refers to issues that persist to date. For instance, the author criticises the adverse environmental effects caused by indiscriminate pesticide use; the rapid spread of disinformation, misinformation, and fake news stemming from the chemical industry and public officials who accept the industry's marketing claims unquestioningly. (Carson, 1962)
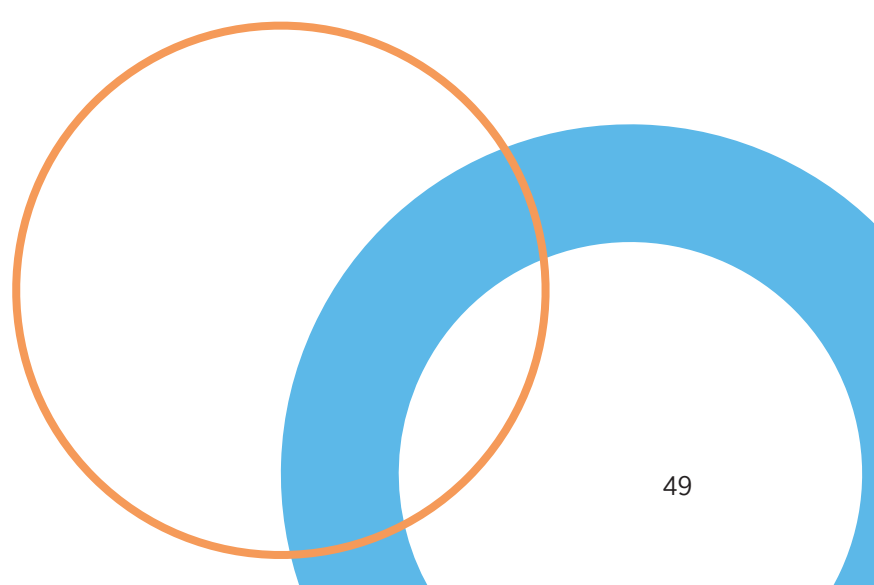
Creating Awareness about Quality Education through Storytelling

As we have seen in the beginning of this research, SDG4 Quality Education is regarded as a central theme in various children's books. This section will provide an overview of some of the most popular books aimed at raising awareness on the importance of equal access to education for all children, irrespective of their ethnic background, gender, and socioeconomic status. It is recommended that educators start making us of stories like the once enlisted below during their lessons so that they engage children in discussion and contribute to their level of understanding on such a debatable but significant topic.

Through My Eyes by Ruby Bridges

Ruby Bridges narrates her own narrative about how "the civil rights movement came knocking at the door" and changed her life as a six-year-old girl, along with important photographs and phrases. Ruby's experience as one of the students chosen to integrate her New Orleans elementary school in 1960 depicts a period of crisis, courage, and commitment. (Bridges, 1999)

Waiting for the Biblioburro by Monica Brown

Ana adores the one book she has, but she yearns for more knowledge and stories to read. There hasn't been anyone to teach the kids since her instructor moved away. Then the Biblioburro shows up in Ana's town, and the itinerant librarian and his books open up new worlds for Ana and the other kids. (Brown, 2011)

Josias, Hold the Book by Jennifer Reismeyer Elvgren

Every day, on his way to school, Josias' friend Chrislove asks him when he will "hold the book" and join them at school. Josias always says he is too busy to go to school. When various cures fail to help Josias' seedlings develop, he discovers that one of those schoolbooks may hold the solution to his dilemma. (Reismeyer Elvgren, 2006)

Armando and the Blue Tarp School by Edith Hope Fine and Judith Pinkerton Josephson

This inspiring and educational book covers a variety of economic topics such as poverty, child labour, opportunity cost, and education. The authors do a fantastic job of conveying the harsh living conditions of the poor's most vulnerable members—children who labour instead of going to school and live in shacks alongside the garbage. Not only are the immediate circumstances deplorable, what with the bad odour, heat, noise, and flies, but the longer-term prospects of growing up without an education are also gloomy.

When Armando's parents give him permission to attend a school at the dump that Seor David recently opened, hope for a different kind of future enters his life. Armando recognizes that the decision will be difficult for his parents, who rely on his trash-picking income. This book is an excellent addition to any library of children's literature that emphasizes high content quality. The book is as realistic as it is inspiring, with its developing-country location and the narrative of the real Seor David Lynch at the back. (Hope Fine and Pinkerton Josephson, 2014)

Running Shoes by Frederick Lipp

The "numbers guy" visits Sophy's village every year to count the inhabitants. This year, he catches Sophy admiring his running shoes, even though she comes from a poor home. Sophy is overjoyed when a pair of running shoes arrives a few weeks later, allowing her to run the eight kilometres to school. Sophy has a present for the numbers man when he comes back the next year: she can read and write. (Lipp, 2008)

Yasmin's Hammer by Ann Malaspina

Yasmin and her sister work long days in the brickyards to help support their family financially. Yasmin wishes to attend school in order to improve her life and chooses to take action to make her dream a reality. (Malaspina, 2010)

Rain School by James Rumford

Thomas and the other children in a Chadian village are looking forward to the first day of school. However, there is no school after a long walk to the schoolyard; the first lessons are that the students and teacher must construct their own school. Learning does not end after school is finished. When the children's minds are "full with knowledge" at the end of the school year, the rains arrive, and the school is washed away. When the new school year begins, students will begin to construct a new school. (Rumford, 2010)

Elena's Story by Nancy Shaw

Elena finds it tough to keep up with her reading and schooling due to her family obligations. She is unable to read at night due to the high cost of candles. Elena's mother decides that Elena's most essential position in the household will be "the reader" - which will necessitate plenty of candles after Elena solves two obstacles by reading to her brother to keep him busy, and out of trouble. (Shaw, 2012)

Razia's Ray of Hope by Elizabeth Suneby

Razia is excited to learn that her village is constructing a new school for girls. Everyone in her family, except her grandfather, seems to believe there are valid reasons for her not to attend. When Razia brings the school's teacher home to persuade her family, both she and her instructor are able to persuade her family that Razia's education will benefit everyone. Based on a true story. (Suneby, 2013)

Separate is Never Equal: Sylvia Mendez and Her Family's Fight for Desegregation by Duncan Tonatiuh

When Sylvia Mendez and her family relocate to Westminster, California, and attempt to enroll their children in the local school, they are told that their children must attend the Mexican school. This is the sole reason given. "That's the way it is done." Sylvia, her family, and others in the area must struggle for the right to attend their local school. Will they be victorious? (Tonatiuh, 2014)

Nasreen's Secret School by Jeanette Winter

Nasreen refuses to speak or smile after her parents vanish (perhaps captured by the Taliban). Nasreen's grandmother wants Nasreen to "learn about the world, like I did," and she risks sending her to a "hidden school" where she might learn, wonder, and hope. (Winter, 2009)

Gift Days by Kari-Lynn Winters

Nassali wishes she could go to school like her elder brother, but since their mother died, Nassali has been forced to stay at home day after day, caring for her younger siblings and doing all of the household tasks. When Nassali expresses her dissatisfaction with the fact that she is unable to attend school, she is told, "That is the way it is." That has always been the case." Nassali swears to find a method to receive an education, and her brother eventually assists her in achieving her goal. (Winters, 2012)

In addition to educating children about the importance of Quality Education for all, today's children should also be exposed to and educated about the importance of shattering the gender stereotypes that are still prevalent to date. Fortunately, several book authors and publishers are using their pen to write stories that promote gender equality, debunk stereotypes based on gender, counter the underrepresentation of girls and their potential. Below, one can find a short description of some children books that aim to be gender-neutral in their approach.

All I Want to Be Is Me by Phyllis Rothblatt

This charmingly designed children's book depicts the various ways in which young children experience and express their gender. The book expresses the thoughts of children who do not believe they fit into restrictive gender norms and simply want to be themselves without being labelled as a "he" or "she." The book is a fantastic method for children of all ages to learn about gender variety and to appreciate other ways of being. Visit www.alliwanttobeisme.com for additional information on how this book can be utilized by parents and teachers, as well as to hear the book's original song, "All I Want to Be Is Me." Children of various ethnic backgrounds, learning capacities, and family systems are also shown in book artwork. (Rothblatt, 2009)

But, I'm Not a Boy! by Katie Leone

One of the earliest transgender books for children aged 6 to 8 years old, according to some. The story follows David, who appears to be a female named Sarah, but no one realizes she is actually a boy. The author, who is transgender, writes the book from the perspective of someone who has gone through the fear, confusion, shame, and loneliness that a gender dysphoric child goes through, as well as the difficult journey to acceptance and freedom in a society that actively discourages children from exploring their own gender identity. (Leone, 2015)

Jacob's New Dress by Sarah and Ian Hoffman

Jacob, the primary character, enjoys dressing up and pretending to be anybody or whatever he wishes. His friends, on the other hand, always tell him that he can't simply wear a "girl" dress to school. Jacob, however, insists on wearing a dress to school. The story reverses how Jacob persuades his parents to allow him wear anything he wants, and it tackles the difficulties that males face when they struggle to identify with established gender stereotypes. (Hoffman and Hoffman, 2014)

Morris Micklewhite and the Tangerine Dress by Christine Baldacchino

The story revolves around a small boy named Morris, who, like the last book, enjoys wearing the tangerine dress in his classroom's dress-up area, despite the fact that the other children in his class believe that dresses are just for girls. He isn't even permitted to join his friends in building a spaceship because astronauts, of course, don't wear dresses. Morris finds such a situation so daunting that he asks his mother to stay at home for one day. Morris, inspired by his dream the night before, constructs his own spaceship and takes two of his classmates on an outer space voyage, demonstrating to them that girls, like boys, can aspire to be astronauts just as boys can. (Baldacchino, 2014)

The Boy with Pink Hair by Perez Hilton

The author narrates the account of a boy who was born with pink hair, in contrast to his parents' hair color. The article delves into the difficulties that the youngster faced when he first started school because he was different. However, the boy's parents and his buddy, the ponytail-wearing girl, helped him uncover his special powers. This book really tackles stereotypes about what it means to be a boy or a girl by showing that everyone can make a difference in this world and his ability for preparing beautiful pink food and getting everyone to participate saves the day. (Hilton, 2011)

I Am Jazz by Jessica Herthel and Jazz Jennings

The author of the book shares her true tale of being born in a boy's body but with a girl's brain. Jazz has always enjoyed doing things that "girls" do, such as dancing, dressing up as mermaids, and wearing pink dresses, since she was a child. At first, the family found it difficult to comprehend, and they forbade the main character from wearing dresses when they went out. Everything changed, however, when a doctor informed Jazz's parents that she was transgender and that she was born that way. The book's message is profound, emphasizing the significance of self-acceptance and self-love. (Herthel and Jennings, 2014)

The Zero Dads Club by Angel Adeyoha

This book honours a variety of family structures. The story begins on Father's Day, when two dark-skinned children sit at a desk next to one other. One of them, Akilah, complains to her friend Kai about a tie she painted. She is upset since neither of their families has a father. Akilah, who is an activist, suggests they hold a demonstration on Father's Day. Instead of protesting, they decide to form a group called the Moms Only Club. To cater for the club's rising membership, they soon changed the name to the Zero Dads Club. Some of the members do not have mothers or fathers. The first graders get together to support one another and make cards for the adults they care about. Following that, there is a celebration of many family forms. There are cards for a transgender mother, lesbian mothers, and single mothers. The range of the children characters in the book is as impressive as the variety of family structures. (Adeyoha, 2015)

My Princess Boy by Cheryl Kilodavis

A tale about a young kid who enjoys "girly" pursuits. The book's major theme is to encourage parents and educators to embrace their children's expressions regardless of their gender. Despite receiving a lot of negative feedback regarding his physical appearance, the main protagonist loves and supports his family throughout the novel. (Kilodavis, 2009)

Is that for a Boy or a GIRL? by S. Bear Bregman.

A story about a group of amazing kids who have had enough of being told that certain things are just for females and others are only for guys. The story explores how individuals mix and blend everything they like to find what suits them best, regardless of their gender identity in society! That is why this book is written for parents who are attempting to raise their children in a gender-neutral environment, as well as parents who want to begin explaining some of the arbitrary and unexamined things humans do not have to determine by gender - such as which toys are for whom, and who gets to like glitter and who gets to like dinosaurs - as early as possible. (Bregman, 2015)

George by Alex Gino

This story is around the experiences of a transgender fourth grader who gradually learns to be herself and to share her secret with others. She meets a lot of helpful people along the way, but her best friend, Kelly, is her biggest supporter. Other children, on the other hand, tease George, and she is bullied because of her gender identity. George's brother believes George is lesbian, but she claims she doesn't "truly know who she preferred, males or girls." The book is about sexual identity, although there is no sexual behaviour in it. The book alludes to porn and "dirty" publications as something boys do, for the sake of parents. As a result, young readers who are unfamiliar with the term "porn" may be tempted to look it up. The author's goal in writing this book was to assist parents and teachers in learning more about gender identity issues such as what it means to be transgender and how to stand up for someone who is being bullied. Gino, 2015)

Heather Has Two Mommies by Lesléa Newman

This book was first released in 1989 and was the first product under Alyson's new Alyson Wonderland banner in 1990. This simple and straightforward story about Heather, a little child, and her two lesbian mothers represents a nontraditional household that did not exist at the time, and it sparked a blaze of debate. Heather faced an uphill struggle after being attacked by the religious right, ridiculed on the Senate floor by Jesse Helms, and taken from library shelves. Heather Has Two Mommies, on the other hand, has sold over 35,000 copies, launched a minor industry in providing books for children of gay and lesbian parents, and, as a recent New Yorker cartoon attests, become part of the cultural lexicon thanks to the overwhelming support of booksellers, librarians, parents, and children. The controversial artificial insemination section has been removed for the 10th anniversary edition in response to teacher and librarian concerns, making Heather more accessible to younger children while maintaining the central message of love and acceptance that has endeared the book to countless readers. "The most essential thing about a family is that all the individuals in it love each other," Molly, Heather's favourite teacher, says. (Newman, 1989)

10,000 Dresses by Marcus Ewert

This novel is about a young boy named Bailey who dreams of amazing gowns every night - dresses made of crystals and rainbows, flowers, and windows... Unfortunately, no one wants to hear about these lovely dreams when Bailey is awake. "You're a BOY!" says the narrator. Bailey is informed by his parents. "Dresses aren't something you should be thinking about." Bailey then meets Laurel, an older girl who is moved and inspired by Bailey's bravery and ingenuity. They start making outfits together out of friendship. And Bailey blossoms into the woman she'd always imagined herself to be! This lovely picture book, a modern fairy tale about being the person you think you are on the inside, will please readers of all ages, especially children who are unsure of who they are. (Ewert, 2000)

Creating Awareness about Sustainable Development through Dance

Consider descending a talus hill, walking over a ship's deck in rough seas, skiing through tough terrain, or perhaps traversing a packed dance floor with a polka partner. Such movements necessitate the ability to adjust to changing circumstances. The dancer keeps moving forward on her chosen course, but the steps require some extra room. What qualities do you need to be a good dancer? A light foot and the ability to anticipate the next barrier or shift are essential components of the formula. (Harden, 2012)

The dancing analogy is a good fit for our "footprint" metaphors. Carbon footprints, water footprints, energy footprints, food carbon footprints, environmental footprints, urban footprints, megacity footprints, security footprints, and military force footprints are among the many types of footprints. Some of the footprints refer to real-world sites, while others are more abstract. Lowering one's footprint entails lessening one's influence and, in some cases, reducing the amount of land affected. Being human means leaving a footprint; being nearly 7 billion humans means being unable to ignore the footprint. Humans must reduce their carbon footprints and boost their ability to adapt to change in order to be sustainable. (ibid)

Sustainability and its related concepts and practices (for example, sustainable development, sustainable cities, sustainable agriculture, and sustainable energy) fall squarely within geographers' purview. We could debate the concept's limitations, but it would be better to embrace the widespread attention paid to this theme, which is so central to geography, and seize opportunities to apply geographic expertise to real-world issues concerning the future of valuable resources, customs, and institutions. Put on your small-footprint dancing shoes and get ready to dance. Even better, choreograph it. (ibid)

Case 1

Despite the availability of various activities aimed at engaging youths in performing arts with the aim of raising more awareness of sustainable development, this study will focus on an advocacy and fundraising event 'Dance Marathon 2013' – held in Kathmandu, Nepal and led by Restless Development and dance4life. The event was also organised in association with Child Workers in Nepal (CWIN) and YUWA and it was supported by the Dutch National Postcode Lottery. The event aimed to make young people more aware of gender equality and to support Chepang women's education in Dhading. The Chepang are one of Nepal's most disadvantaged and marginalized indigenous groups, who particularly struggle to educate their children due to poverty.

The first ever dance marathon received overwhelming energy and enthusiasm from 95 young people, including 61 females, aged between 16 and 28, who danced along musical performances by disk jockeys and dancers. Out of all the dancers, 75 endured and danced for eight hours until the end of the marathon in order to show their support for gender equality. The Dance Marathon saw six winners, five of them female, who took a total break time of only two minutes. (Skulnik, 2013)
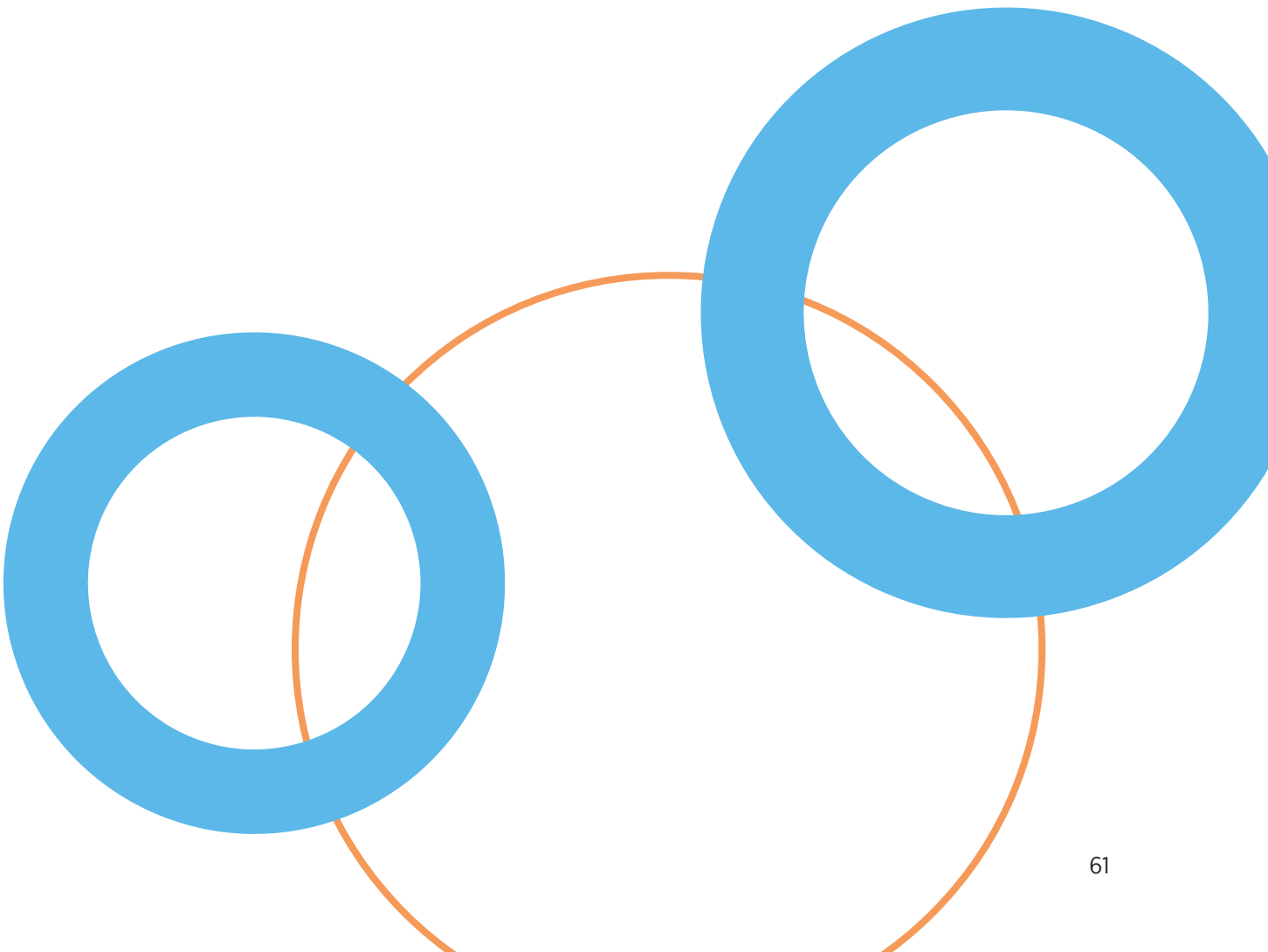
Case 2

Every year around Europe Day in early May, the EU Open Day gives the public the op-portunity to learn about what the EU does, in an entertaining way. The main institutions open their doors and organize activities for visitors of all ages.

At the European Commission's Climate and Energy stand, visitors were drawn to a power-generating dance floor. Human movement in the form of jumping or dancing on multi-coloured floor tiles created kinetic energy that was converted into usable electricity via a generator. A two-meter high illuminated "energy tower" and a large dial showed the visi-tors just how much effort is involved in generating power.

The incentive to keep moving was stepped up by a dance challenge, with two teams on different sides of the floor competing against one another. Similar efforts provided the energy for 470 low-carbon selfies in a human-powered photo booth.

"Our aim is to engage people through fun activities that are also educational and offer information about climate change and ways to tackle it," said Miguel Arias Cañete, EU Commissioner for Climate Action and Energy. He further states, "As part of the Paris Agreement on climate change, the EU has committed to cutting greenhouse gas emis-sions by at least 40 % by 2030. We all policymakers, citizens, businesses have a role to play in working towards this goal to help keep global warming in check." (European Com-mission, 2017).

Creating Awareness about Sustainable Development through Quality Education

Schools nationwide, place emphasis on developing pedagogical techniques that enhance student's critical thinking skills, effective communication, collaboration and teamwork and creativity so that they are better prepared for the world of work and for life in general. Equally important is students' ability to identify the importance of being sustainable and acting as environmental ambassadors to shape their future.

Educators can come up with several initiatives aimed at educating and informing students about sustainability. Such teaching activities include but are not limited to "greening" the lessons; implementing the 3Rs approach in the classroom; seeking alternative mechanisms to save energy; and strengthening their sustainable attitudes and behaviours.

UNESCO had also come up with several classroom activities aimed at assisting teachers in creating new classroom content that helps students better understand the significance of practicing sustainability in their daily routines. Some of the suggested activities are briefly described below.

Activity 1: A To-Do List for the Planet SDG15 Life on Land

This is a comic poster that teachers can access online for free. The poster presents the meaning of SDG 15 and explains why it is important that citizens engage in efforts to safeguard life on land. Students should come up with a list of actions that they can take to put this principle into practice during their day-to-day lives. The comic poster can be accessed from here (De Heer, 2016).

Activity 2: Become a Climate Changemaker

This is a resource pack for educators composed of 10 lessons that can be utilized to engage their students in dialogue and assist them in developing their advocacy skills and become science advocates that strive to combat climate change. Lessons include quizzes, group discussions, and building up Climate Changemaker messages that can be shared on the school learning platform or with their local community (World's Largest Lessons, 2021).

Activity 3:

Educators may present students with different definitions of sustainable development and build a classroom discussion based on which aspects have been realized and which aspects still need to be tackled. Students should be encouraged to propose their own definition of sustainable development and outline the aspects of sustainability that they personally perceive as being important (The Open University, n.d.).

Activity 4: Educators can run a series of short and simple activities that students can complete at home to practice sustainability outside the classroom. These simple experiments usually engage students and are easy to do from the comfort of one's home. These include but are not limited to planting a tree, making a mini greenhouse, investigating air and water pollution through an experiment, and constructing paper (Chiavarone, 2018).

Educators as ambassadors of sustainable development in schools should also be adept at enhancing their professionalism by developing partnerships between schools, universities and other institutions offering education in different regions of the world; running a quality education campaign within the school community; conduct a case study to investigate the current education system and access to education in both primary and secondary schools; whilst also being actively involved in the planning and execution of enquiry-based projects aimed at encouraging schools to be more sustainable in their daily practices (UNESCO, 2017).

Creating Awareness about Sustainable Development to Preserve Life below Water

Water preservation entails the application of sustainable practices on land. In fact, the relevant literature has identified a direct correlation between the sub-groups and indicators that define SDG 14 and SDG 15 (Arana, Franco, Joshi, and Sedhai, 2020). This could be attributed to the fact that, safeguarding the Earth's biodiversity entails the preservation of marine ecosystems which provide both shelter and food for marine and terrestrial creatures.

The latter is particularly significant since marine organisms are usually at the base of the food chain and act as producers or primary consumers; they act as energy sources for other organisms that live on land. In conjunction, protecting our waters would sustain the fishing industry and provide fair employment opportunities for the millions of people living in developing countries and who live near coastal areas, thereby substantiating their lives through fishing and artisan fisheries (Gulseven, 2020).

Due to this global water crisis, several organisations have recognized the need to strive and tackle the issue. (Hydrofinity, 2018). Charity: Water is an NGO that aims to provide potable water to developing countries whilst acting as an advocate for change that educates and informs people about how to change their malpractices in order to help them appreciate better appreciate the value of preserving water (charity: water, 2021). Similarly, Water.org is an NGO that engages with the community and together, they work on projects related to bringing safe, potable water in developing countries whilst shedding light and consulting governmental bodies on the direct link that exists between access to capital and overcoming the global water crisis (Water.org, 2021).
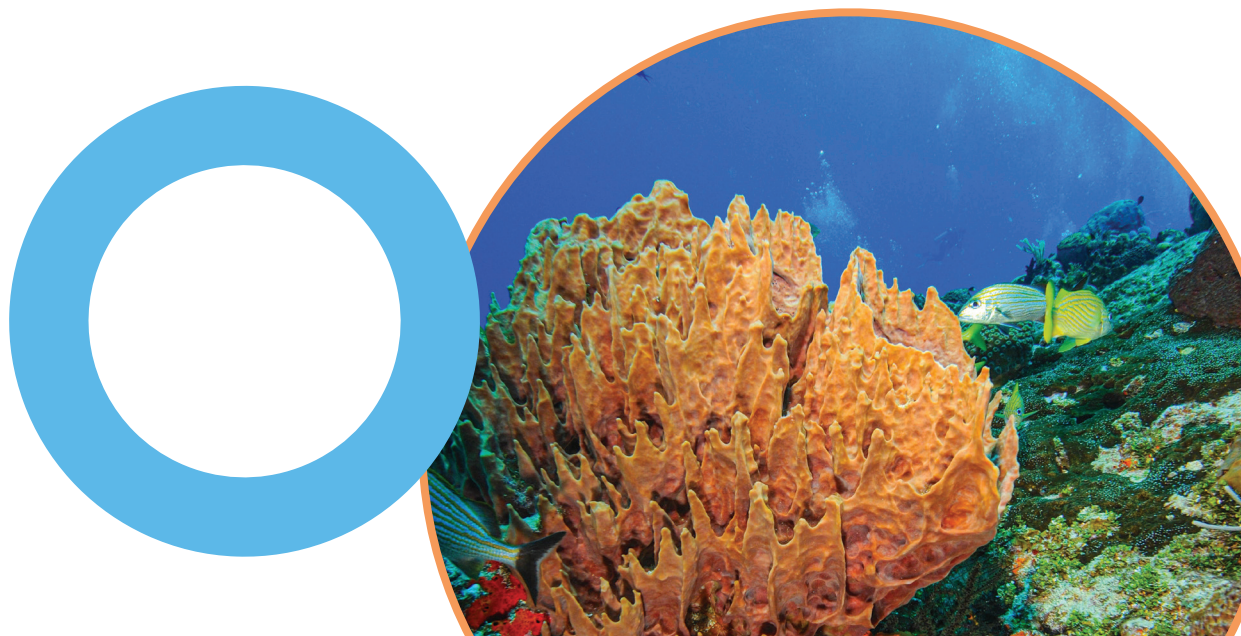
Alongside this, there are several local NGOs that aim to raise awareness of water preservation in Malta. For instance, #Żibel launched a new sea-cleaning technology that has the potential to catch an estimated 1.5 kilograms of marine debris; this effort raises awareness of the high levels of water pollution and comes with an element of hope by showing that there are multiple means of preventing further increase to pollution levels (Micallef, 2018).

Both international and national governmental entities are also striving to increase citizens' awareness of the importance of preserving water. Malta has seen the opening of GĦAJN National Water Conservation Awareness Centre which offers an interactive make the public more conscious of the need to conserve Malta's water reserves and our seas. The centre has also launched a three-year campaign, called 'Water – Be the Change', aimed at delivering effective education and raising awareness of the optimized and efficient use of water resources to facilitate a cultural shift in people's behaviour towards water conservation on the Maltese Islands (Water – Be the Change, 2019).

There is also a significant number of international projects aimed at conserving water and safeguarding the marine ecosystem. UNESCO, for instance, has published a Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA) that addresses the connectivity between terrestrial, freshwater, coastal and marine ecosystems whilst it also aiming to be a conceptual and practical guide to global authorities for devising and executing sustained actions that mitigate, reduce, control and/or eliminate marine degradation from land-based malpractices (UNEP, n.d.).

Despite being published in 1995, such a document still did not manage to convince citizens to protect marine life for their own wellbeing and security. Hence, a related policy document has been recently published to further tackle this challenging issue and end the harm that is being done to our coastal environments and the marine life within them. In addition, the document identifies seven drivers that are directly impacting coasts and the changes that they are undergoing at an alarming rate.

These drivers are: climate change, increased personal wealth and living standards, urbanization, industrialization, globalization, population growth, and migration. As can be seen, many of these drivers are negative externalities of terrestrial human malpractices that are not being taken into consideration within existing resource-governance agendas. That is the main reason why this report encourages growth in land-sea governance and further research into how land-based practices are leaving an impact on the quality and availability of marine resources. Such responses are better accounted for through changes in current governance that better connect land-based activities to coastal resource systems to enable impacts to be considered from their source through to where they are generated (Fletcher, Lu, Alvarez, and McOwen, 2021).

Equally important is the notion that young generations should be educated and well-informed about safeguarding oceans and their marine organisms. As a matter of fact, UNESCO proposes several educational activities that teachers can use in their classroom to make children aware of the importance of water preservation, the protection of marine ecosystems, and the reduction in sea pollution marine biodiversity, and to expose children to the main threats imposed upon the ocean due to excessive plastic waste dumped in the ocean (UNESCO, 2014).

Creating Awareness about Sustainable Development through Digital Gaming

Studies have shown that one of the most effective tools that has the potential to bring a wave of change at organizational levels in how the issue of sustainability is approached is the use of gamification and serious games (Wally Scurati, Ferrise, and Bertoni, 2020). Gamification, which is the use of game elements in non-gaming settings (Deterting et al., 2011) has proven to be effective as a learning tool for education in many domains (Ravyse et al., 2017). It may be applied to themes related to environmental, social, and economic issues, and it can be used as a training tool in professional and industrial fields (Agogué, Levillain, and Hooge, 2015; Uskov and Sekar, 2014).

There are various types of games that could be used to encourage the adoption of more sustainable practices and show how these may positively impact daily human practices. For instance, research suggests that simulation games are providing a chance for students and inexperienced employees to experiment with and analyse simulated real-life situations in which unsustainable practices persist, and it enables them to understand how this will impact the future (Cohen, Niemeyer, and Callaway, 2017; Ayer, Messner, and Anumba., 2016). Conversely, role-play games mediate the process of understanding the multiple circumstances and phenomena related to decision-making by different stakeholders on which approach to take to practice sustainability (Schrier, 2015). The social element of board games or card games gives them the potential to help stakeholders to discuss and experiment with others' role whilst facilitating a change in current perspectives on the issue of sustainability (Whalen and Peck, 2014).

Research shows that metaphorical games allow room for the better comprehension of complex issues, by making such issues more realistic, contextual, and simple. This in turn, acts as an optimal educational source for students and the inexperienced when tackling complex issues. One such example is the use of a garden to exemplify employees' energy consumption in an office (Oppong-Tawiah et al. 2020). Another

example is the representation of background noise in the ocean as fog, coral reefs as the lungs of the ocean, and ocean acidification as the osteoporosis of the sea (Carr, 2018).

The latter, however, does not come without controversy with some researchers arguing that the way metaphors are used to represent the oceans, often, as an alien landscape can, limit the way language is utilised in marine conservation efforts. This constraint can produce unhelpful environmental metaphors that, instead of acting as catalysts for action, produce negative and reactionary responses. This could be substantiated through the example of what has become known as the 'Great Pacific Garbage Patch'. Such an example clearly shows that if there is a disconnection between the many complex environmental issues facing the world's oceans and the way they are perceived, then, more emphasis should be made on establishing culturally entrenched metaphors that can evoke accessible images while simultaneously being based on scientific fact (Neilson, 2018).

Digital games can also act as potential tools to educate young children on behaving sustainably in their day-to-day practices. In fact, a study has shown that awareness of acting sustainably is increased when Kolb's theory of experiential learning is intermingled with games to educate children on sustainable development. This is because, games are excellent tools when practising contextual and paradigm changes. As such, games could and should be added to curricula in sustainable development education. In terms of the four phases of Kolb's experiential learning cycle, games play an important role in phase four (Active Experimentation). This is because, it can help students understand and apprehend the differences between criticism and making suggestions for context changes in concrete organizational settings. This is a very important skill that students should master before they enter the world of work (Dieleman and Huisingh, 2006).

Digital Games to Raise Awareness of Sustainable Development

As documented in the relevant literature, many games are already available and new ones are being developed all the time. Alongside this, the type of games that usually have a bigger impact on bringing about change in attitude and transforming current societies into more sustainable ones include games for communication and collaboration, games for self-analysis, and system games. This list is not exhaustive, and one can implement a combination of these games and change them according to one's preference (Dieleman and Huisingh, 2006).

In addition to this, the United Nations has foreseen the importance of utilizing games to raise awareness of global issues. As a matter of fact, this world-renowned organization came up with the idea of organizing an event called Global Game Jam (GGJ), where people meet, connect, and design games over the weekend and upload their games to an online platform. In 2019 only, over 100 countries participated in this event and thousands of games were created in countries such as Congo, New Zealand, Jamaica, and Guatemala. This shows that this initiative is allowing game designers from less privileged countries to gain the visibility that they deserve and be part of such change.

The response rate for this event is very high and the results are fascinating! For instance, a team in Venezuela designed a text adventure game called "*Legacy-Echoes from the Future*" where players must try to change their behaviours to alter the future and avoid the extinction of marine creatures. On the other hand, a South African group created a game where a hermit crab explores the depths of the ocean in order to find a new home because pollution has completely changed its living environment. Alongside this, a group in Ukraine created a game called '*Wasted Sea'* on how to take responsibility for personal waste to protect oceans and involves playing an angry shark navigating the challenges of its everyday life in polluted environment.

The United Nations strongly believes that this event has shed light on the importance of knowledge democratization in game design and how this has the potential to provide

people with a voice and enable them to formulate their own solutions to the social, economic, and political issues surrounding SDGs, whilst, at the same, moving closer to the realization and attainment of such goals (United Nations, 2019).

Hereunder, one can find a list of digital games that can be effectively implemented in the classroom to make children aware of the importance of being sustainable.

Get Water

Get Water is the first game made by Decode Global and it is a touch-screen game that aims to help Maya collect clean water for her family who lives in a developing country. The main objective of the game, however, is that of highlighting the problematic issue of water scarcity on a global level and more specifically, in developing countries. The main protagonist of the game is Maya, a young girl who wants to go to school but cannot because the need to obtain clean water for her family is more urgent.

The players are instructed to collect clean water and avoid touching dirty water, to help Maya run through her village until a peacock, turtle or football breaks her pot. Rather than trading in coins or cash, players trade in pencils, which symbolize education for abilities such as Hyper Hydration, Fancy Filter, and Purification Tablets. The game not only emphasizes the need of having access to clean water, but it also encourages players to think about human rights and social justice concerns, as well as education and gender rights (Panlilio, 2013).

Eco

Eco is an expansive, virtual survival game that guides players to collaborate with one another to build a sustainable civilization by making use of only the resources that are available to them within the simulated ecosystem. Faced with a meteor collision, players are pressured to work together to encourage citizens to work collectively and stop the meteor before it destroys the entire ecosystem. Most important, however, is the fact that this digital game instructs players to re-enact a sustainable lifestyle by adopting a balanced diet and controlling the gathering of natural resources; without these measures, human activity, would otherwise negatively harm or destroy the environment (Washington Post, 2018).

To put this in context, cutting too many trees reduces the amount of air pollution that can be mitigated, and creates too much pollution by using high tech machines. This raises sea levels and species of plants or animals can become extinct if players harvest or hunt too much of them. To prevent this from happening, players must create a working society. They have the possibility of creating currencies and establishing an economy for trading, as well as forming a government to propose and vote on laws that can restrict what other players can do or give incentives to (not) do things by applying taxes to or creating government grants for specific actions (Eco, 2018).

On a final note, this game not only raises more awareness of the importance of sustainable development, but it also encourages players to understand the importance of active collaboration and working as a team; ultimately, collective action brings about far more positive change than individual efforts (Dubowy, 2018; Fjællingsdal and Klöckner, 2019).

Bag to the Future

In a recent study investigating the positive impact of digital games in raising awareness of sustainable development and environmental literacy, it was suggested that the digital game 'Bag to the Future' aims to; motivate users towards the replacement of plastic bags in their everyday life; and provide awareness of the negative impact of plastic bags on the physical environment.

The game's storyline is based on two of the main causes of the current environmental problems that the world is facing: the hidden and unpredictable long-term threats of plastic bags to the environment and the importance of the development of household/local pro-environmental behaviour at an early stage in human life. Moreover, the game is based on the presumption that although the negative effects that plastic bags have on the environment are not always directly visible, our current actions have consequences for a more distant future. Hence, the game starts with a short narrative, in which the imaginary future-self of the young character appears to inform him about the situation in the future, where the problem is most visible and unavoidable.

The game's first "target" is the character's house, which aims to create a mental connection with the place where human behaviour and habits are born and formed, at the domestic environment. For the next levels, the player moves to his neighbourhood and town, visiting the local stores, and local school, for example the player's aim is to alter the future by modifying the behaviour and habits of the grown-ups, who use plastic bags recklessly every day. Throughout the game, the character must collect as many plastic bags as possible, with a futuristic device called "bag-exterminator", and replace them with fabric bags, baskets, or different temporary storage means which are, friendlier to the environment.

Throughout the game, alternative storage means are being proposed to the player depending on the context of use. The gameplay focuses on the story and the main act of replacing plastic bags, using the simple mechanics of a 2D platform; side scrolling game. Their mission is secret, so the user is playing against time and noise; the purpose is to

collect as many plastic bags as possible in the least time without making too much noise; by jumping off great heights or dropping objects on the floor. Figure 1 below, presents four screenshots of the game (Gardeli et al. 2017).

Figure 1: Preview of 'Bag to the Future' game.

Finding Bags

This game informs players about the factors that contribute to the destruction of the underwater environment and the dangers that marine organisms are facing due to the drastic increase in the amount of plastic thrown into our oceans. The main goals of the game are to:

- clean the ocean by collecting plastic bags in an underwater environment and safely transfer them to the vessel, where they will be recycled; and
- save trapped marine organisms particularly turtles who mistake plastic bags for jellyfish (Henkel, 2013).

Another positive point related to this game is that there is not a winning situation; players can collect as many bags and save as many fish and turtles as they are able to. The game uses microsimulations to show the level of pollution, as glimpses of the future. The game counts the score, which is based on the number of collected bags per time units, and it ends either when the time is up, or when the pollution reaches a very high level.

The game mechanics are quite simple and aim at representing the important effect of the act of collecting plastic bags in a real-life marine environment (Gardeli et al. 2017)

EnerCities

EnerCities is a 3D game that teaches its potential users about renewable and non-renewable sources of energy (Knol and De Vries, 2010). In the game, players are instructed to create a sustainable city by engaging in activities normally not performed in day-to-day lives. Players are given the role of city planners in a real-world scenario, and make decisions that are environmentally friendly, sustainable, cost effective, and that keep citizens of the virtual city happy.

The game depends on actions executed by the players who must monitor indicators to visualise their progress. All icons and indicators incorporate pop-up boxes that contain additional information. For example, clicking on the solar farm icon provides the purposes, applications, space required, and cost of establishing a solar farm. This facilitates cognitive learning.

The happiness of the virtual citizens in the city is indicated by smiley faces and the green cover by a tree icon. The smiley face becoming sad or the green colour tree icon becoming red indicate a state of urgency and produce an emotional connection that facilitates effective learning. By immersing themselves in a complex real-life situation, players learn about how wrong decisions result in problems like environmental degradation, the citizens' reduced happiness, economic hurdles, and the depletion of finite resources. For example, when players construct a stadium or marketplace by clearing forests, indicators for energy, funds, fuel, and greenery show a negative reaction. By testing behaviours and seeing immediate consequences, behavioural learning could be greatly facilitated (Janakiraman, Watson, Watson, and Newby, 2021).

The abovementioned examples clearly show that digital games can act as great alternative learning tools to lectures and PowerPoint presentations in changing current attitudes towards environmental practices amongst entire societies due to their fun,

engaging, motivating, challenging, immersive and attractive platform (Chen et al., 2019; Gee, 2007; Harker-Schuch et al., 2020; Prensky, 2003; Troussas et al., 2019).

Moreover, games allow users to test their behaviours and immediately see the consequences of harmful behaviours on the environment, which facilitates the long-term retention of learning and behaviours (Cheng and Annetta, 2012; Harker-Schuch et al., 2020). In relation to this, a study found that, apart from increased environmental awareness, the user's affective, behavioural, and social learning from playing digital games seems to leave a bigger impact on their behavioural intentions.

Hence, despite concerns raised in the literature related to the use of digital games in environmental education, this section has proven that games could be used for attitudinal learning as they provide knowledge as an experience that is situated in scenarios that help learners develop a situated understanding of acting and behaving in a sustainable manner throughout their daily practices (Gee, 2008).
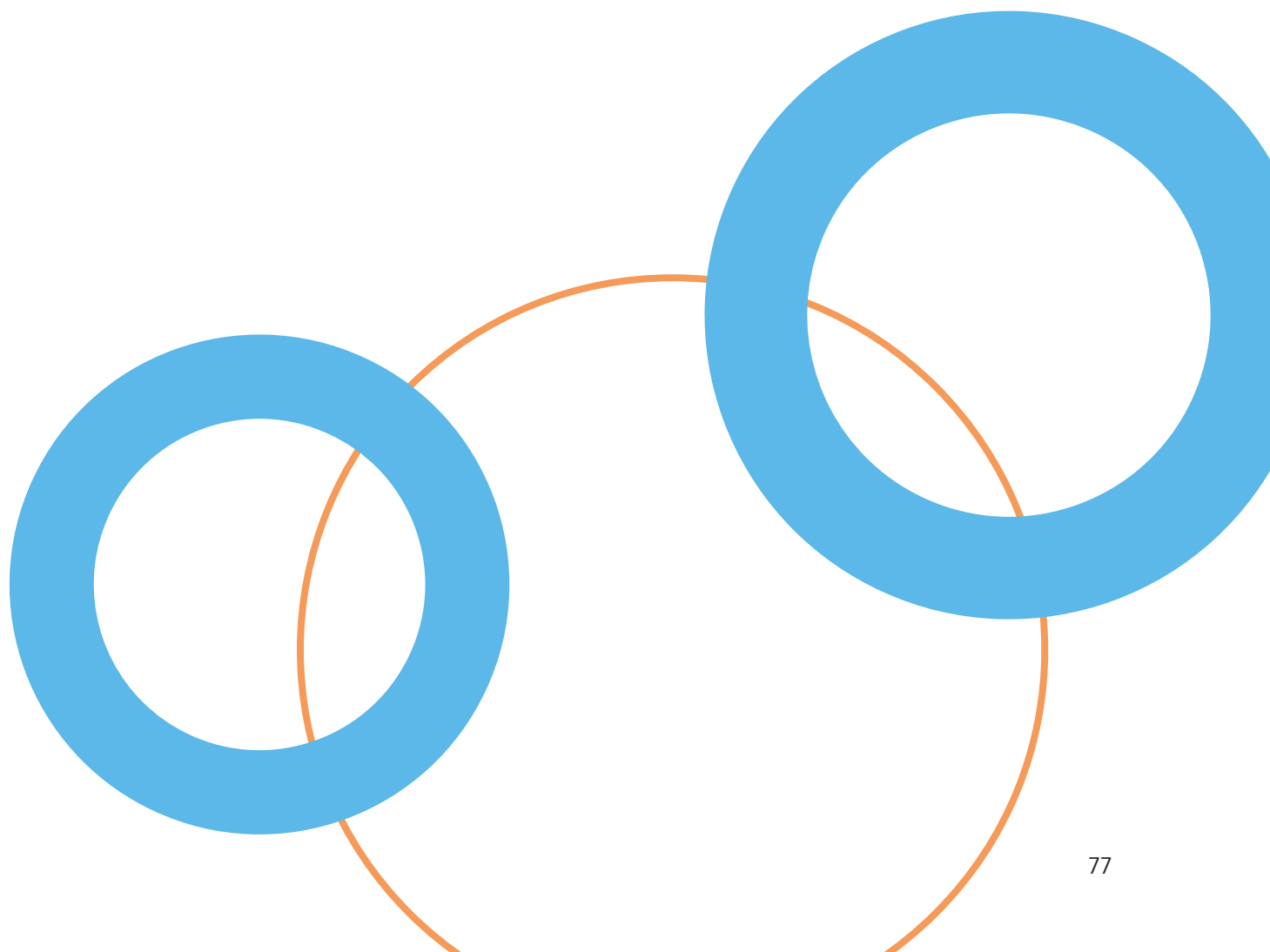
Conclusion

This study has sought to shed light on the relevance of boosting awareness of sustainable development and its goals with particular emphasis being placed on SDG4 Quality Education, SDG5 Gender Equality, and SDG14 Life below Water. Alongside this, prominence has been placed on how storytelling, dance, and digital games could be used to raise further awareness of sustainable development and its global impact. Furthermore, it has presented the divergent sustainable development goals as an integrated whole rather than a set of isolated goals. This study was intended to help citizens see how such goals may be targeted into their daily lives and have an impact on their survival (Petersen, and Ahcin, 2020)

Finally, the study concluded that citizens should be well-informed about the real definition of sustainable development and what it really means to act sustainably. Sustainable development should not risk becoming a 'buzz word' that loses its potential impact on societal actors and their behaviour in their daily practices; rather, the concept should be communicated in conducive language that truly leaves no one behind (The Lancet Global Health, 2019). In this manner, it is hoped that each respective SDG may be reached before further irreversible harm is done to humanity and the Earth.

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