Sustainable Development Goals for Pupils

#13 CLIMATE ACTION

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Sustainable Development Goals for Pupils

To be interested in the 17 Sustainable Development Goals is to make the choice to represent the world in a different and more thoughtful way.

In 2015, 193 member states of the United Nations voted in favor of the Sustainable Development Goals. In 2016, 17 objectives and these 169 targets were created. This ratification aimed to put in place strategies and modules so that all of us could take part and succeed in achieving them on a global scale.

It is therefore all together that we participated in the production of this guide which supports all those who participate in the achievement of these 17 sustainable development objectives. It is obvious that to achieve these objectives by 2030, the training of adults and especially of the youngest, is the most effective way to change representations and raise awareness.

This guide, which has been the subject of careful consideration between the partners, provides complete learning units intended for stakeholders in the educational community as well as the students themselves.

This reflection cannot be done alone. Different actors therefore came together to look at these objectives and put in place actions to achieve them.

The Piton La Ravine Blanche school in Reunion has therefore joined forces with Eco Logic, which is an organization which works for the protection of the environment, and with the European Multicultural Association, which has experience in adult training. and young people. In addition, the Centro Per Lo Sviluppo Creativo Danilo Dolci, is responsible for putting our educational platform online and populating each tab with the product tools.

In these organizations, it is not possible to carry out this project without involving the schools and involving the teaching team, the students and all the other actors who revolve around the student. Thus, a secondary school in Macedonia, OR Malina Popivanova Kocani and Yenimahalle Istiklal Ikokulu.

Just like the Piton La Ravine Blanche school, these secondary and primary establishments mentioned above have the mission of testing the lesson plans designed by all the partners and of leading the sessions with their students.

Work together around these objectives and put every chance on our side to achieve them, reflect and propose tools to share with a wide audience, question representations and expectations; define objectives to be achieved, set challenges to “give all students the means to understand the ecological transition in order to become actors in it”.

In addition, this project echoes the 20 measures of national education, plays the interdisciplinarity card and allows schools from kindergarten to high school to prepare students for this ecological transition by giving them the opportunity, once moreover, to give a European dimension to this approach.

This guide is the essential tool for organizing learning sessions around the 17 SDGs and is structured as follows: a definition of the concept, a list of the pillars which are the social, economic and ecological issues, units of learning. These units include an introduction to each objective, a presentation of each of them, complete educational sheets ready to be used (unit objectives, target audience, necessary materials, tips, appendices, etc.).

It is therefore with great enthusiasm and a serious examination of these sustainable development objectives that this guide is offered to you. My partners and I very much hope that together we will be able to achieve these objectives by 2030. “The destiny of a country depends on the education of its people. » Benjamin Disraeli.

Introduction

Sustainable Development Goal 13 (SDG 13), is one of the 17 global goals established by the United Nations in its 2030 Agenda for Sustainable Development, is a call to action for the urgent need to combat climate change and its impacts.[11] SDG 13 addresses the environmental and societal challenges arising from the warming of the Earth's climate and seeks to encourage nations, communities, and individuals to take meaningful steps to mitigate and adapt to the effects of climate change.

Between 1880 to 2012, the average global temperature increased by 0.85°C.[12] in the effect, many food production (maize, wheat, rice) have decreased significantly at the global level production, amounting to 40 megatons per year between 1981 and 2002 due to a warmer climate. It is a global crisis that poses a significant threat to the planet's future. Climate change is causing an expansion of ocean water which, in combination with water from the melting of land-based ice, is causing sea levels to rise. From 1901 to 2010, the global average sea level rose by 19 cm as oceans expanded due to ice melting.[13] Given current attentions and ongoing emissions of greenhouse gases, it is likely that by the end of this century, the increase in global temperature will exceed 1.5°C since 1900. Average sea level rise is predicted to attain 24–30 cm by the year 2065 and 40-63 cm by 2100. Global emissions of carbon dioxide (CO2) have increased by almost 50% since 1990.

Image source: https://www.coe.int/en/web/congress/goal-13

Theoretical Part

Climate change refers to long-term and significant alterations in Earth's climate patterns. In another words, climate change means that the Earth's weather is changing over a long time. It's like a big puzzle with many pieces, like how hot or cold it is, how much it rains, and what the air is made of. This change in the Earth's climate affects everything, like nature, people, money, and the Earth's health. This is happening because of different things, such shifts can be natural, due to changes in the sun's activity or large volcanic eruptions. But it is primarily driven by human activities, particularly the emission of greenhouse gases into the atmosphere, such as carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O). [14]

These gases create a greenhouse effect by capturing solar heat in the Earth's atmosphere, resulting in a gradual rise in global temperatures, commonly referred to as global warming, like carbon dioxide and methane, make our planet warmer. This happens because they trap the sun's heat in the air. We call this warming "global warming." When we burn things like gasoline in cars or coal to make heat, these gases go into the air and

11 https://www.globalgoals.org/goals/13-climate-action/
12 https://en.unesco.org/themes/education/sdgs/material/13
13 https://environment.govt.nz/what-government-is-doing/areas-of-work/climate-change/adapting-to-climate-change/adapting-to-sea-level-rise/
14 https://www.un.org/en/climatechange/what-is-climate-change

make the Earth warmer. It's like a blanket around the Earth that holds in the heat. This happens in different parts of our lives, like when we use energy, drive cars, build things, and even how we use land. All these things add to the gases that make our planet hotter.

All of these things together make climate change a big problem that we need to fix Scientists and experts say we must find ways to deal with these changes and understand them better, and governments, groups, and people must work together to solve this problem.

Why education is important to achieving SDG-13?

Education which focuses on taking urgent action to combat climate change and its impacts, so it's important for the achieving the SDG13 goal. Education is the primary means of raising awareness and understanding about climate change issue by providing students with the knowledge of the science behind climate change, its causes, consequences, and potential solutions. Education can support to change people's behaviours, once people are aware about the environmental impacts of their actions, they are more likely to adopt sustainable practices.

Small efforts from each individual can help to fight against climate issues; like, reducing energy consumption, using public transportation instead of private, conserving water, recycling, and reducing waste etc. Another important role that education can play in climate change goal is youth engagement. Young people are among the most active advocates for climate action. By equipping them with the knowledge and skills to participate in environmental activism, engage in climate-related projects, and this can also influence policy decisions. Because today's youth are tomorrows decisions makers. Educational institutions like schools play a pivotal role in supporting the climate change programme, knowledge, and actions of future generations, making them integral in the global effort to combat climate change and achieve sustainable development.

SDG 13_Targets: [15]

• **13.1** Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries around the world

• **13.2** Integrate climate change measures into national policies, strategies and planning

• **13.3** Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

• **13.A** Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible

• **13.B** Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities*Acknowledging that the United Nations Framework Convention on Climate Change is the

15 https://unric.org/en/sdg-13/

primary international, intergovernmental forum for negotiating the global response to climate change.

The six-sector solution to the climate crisis[16]

The concept of a "six-sector solution to the climate crisis" suggests a comprehensive approach to addressing climate change by focusing on six key sectors that play a crucial role in mitigating and adapting to the effects of climate change. Which are; energy, transportation, agriculture, industry, buildings, and forestry. Each of these sectors contributes to greenhouse gas emissions or offers opportunities for sustainable practices that can combat climate change. By targeting these sectors with specific strategies and policies, it is possible to work towards a more sustainable and climate-resilient future.

Image source: https://www.unep.org/interactive/six-sector-solution-climate-change/

1. Climate crisis solutions - Energy:

The energy sector aims to reduce greenhouse gas emissions associated with energy production, and it focuses on transition to clean and renewable energy sources, such as solar, wind, and hydroelectric power, while phasing out fossil fuels.

Following steps can be applied:

- Countries should promise to do more to fight climate change by setting ambitious goals for reducing emissions and switching to clean energy.
- Governments, at both the national and local levels, should create clear plans to reduce carbon emissions and aim for "net-zero" emissions with clear carbon goals.
- Stop investing too much in the fossil fuel industry. Instead, supporting clean energy and ways to use energy more efficiently.
- Encourage clean energy and energy saving by rewarding for renewable energy (like wind and solar).
- Invest and explore on renewable energies and benefit from the shift to clean energy in their supply chains.

A short video on climate crisis solutions – Energy:

https://www.youtube.com/watch?v=DbUcMHHgD3o&t=1s

16 https://www.unep.org/interactive/six-sector-solution-climate-change/

2. Climate crisis solutions - Industry:

Industry is one of 6 sectors which can collectively cut carbon emissions to limit temperature rise to 1.5°C. The industrial sector looks at implementing cleaner and more efficient manufacturing processes, as well as reducing emissions and waste.

Following steps can be applied:

- Impose and strengthen energy efficiency standards
- Price carbon — this will facilitate the drawdown of carbon-intensive technologies and promote more sustainable alternatives
- Promote the use of efficient and renewable heating and cooling
- Incentivize and mandate less emissions of greenhouse gases, including cutting methane leaks

A short video on how to climate crisis solutions - Industry:

https://www.youtube.com/watch?v=no0EM9sMhTA

3. Climate crisis solutions - Agriculture, Food and waste: agriculture involves practices that aim to reduce emissions from farming, such as adopting sustainable and regenerative farming techniques, reducing food waste, and transitioning to more plant-based diets to mitigate the environmental impact of food production.

Following steps can be applied:

- Measure food loss, create waste baselines and implement strategies to reduce food waste
- Set and promote science-based targets to increase the availability and uptake of plant-rich diets, increase sustainable production and minimize food waste
- Inform consumers and producers about food choices and how to reduce food loss waste across the supply chain
- Align national diet recommendations with climate goals
- Promote and support climate-smart and sustainable agriculture practices

A short video to explain climate crisis solutions in Food and Agriculture:

https://www.youtube.com/watch?v=OHiLLk08w2w

4. Climate crisis solutions - Nature-based Solutions: land use encompasses responsible land management, including reforestation, conservation, and sustainable urban planning. It addresses issues like deforestation and urban sprawl, which impact carbon sequestration and biodiversity.

Following actions are required at every level: government, private sector and the public:

- Share tropical deforestation by 2025 and stop net deforestation by 2030 globally
- Stop policies and subsidies that incentivize deforestation and peatlands degradation and promote their restoration
- The UN Decade on Ecosystem Restoration is a rallying call for the protection and re-

vival of ecosystems all around the world, for the benefit of people and nature. It runs through 2030, which is also the deadline for the Sustainable Development Goals and the timeline scientists have identified as the last chance to prevent catastrophic climate change.

Restore 150 million hectares of forests and other landscapes by 2020 and 350 million hectares by 2030 – the two primary goals of the Bonn Challenge

Systematically monitor and evaluate the progress of conservation and restoration efforts

Work with suppliers to find collaborative solutions to minimize ecosystem impacts across the supply chain

Invest in landscape conservation and restoration as part of net-zero emission efforts; investments must meet high social and environmental standards

Promote investments in deforestation and peatlands drainage-free supply chains.

Join a local or national organization supporting forest and peatlands habitat conservation and restoration

Adopt a diet that reduces forest habitat loss, peatlands drainage and degradation by shopping locally and in season and purchasing products with deforestation-free and peatlands drainage-free ingredients, when possible.

Whenever possible, neutralize your carbon footprint through investments in natural carbon sinks, such as forests and peatlands.

5. Climate crisis solutions – Transport: transportation focuses on developing sustainable modes of travel, including electric vehicles, public transportation, and active transportation like biking and walking. The goal is to reduce emissions from the movement of people and goods:

Following steps can be applied:

Switch fleets to electric vehicles

Incentivize a transition to zero-emission transportation, including for cars, taxis, buses, trucks and trains

Invest in and remove barriers to non-motorized mobility infrastructure, like protected bicycle lanes or paths for pedestrians

Promote the significant public health benefits of low-carbon policies, including increased public transportation and non-motorized mobility

Switch fleets to electric vehicles

Arrange for flexible and staggered working arrangements

Switch to rail for the transportation of raw materials

Embrace video conferencing for meetings and conferences

A short video to explain climate crisis solutions – Transport:
https://www.youtube.com/watch?v=EyqiWOoRJis

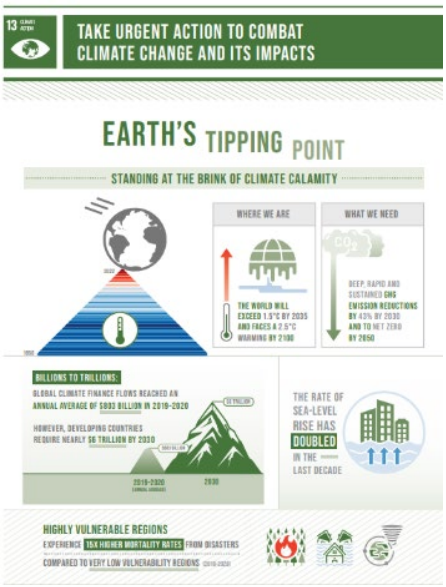
6. Buildings and cities: In the context of buildings and cities, the focus is on improving energy efficiency and sustainability in construction and retrofitting existing structures. This sector also aims to promote the use of clean energy sources in buildings.

Following steps can be applied:

- Retrofit public buildings
- Promote the installation of heat pumps, solar cells and heat storage technology
- Incentivize the installation of central cooling and heating and the use of energy efficient lighting and appliances
- Set carbon-neutral building standards for new construction
- Mainstream sustainable building within urban and rural planning
- Incentivize mini-grid solutions, district heating and cooling and waste to energy systems
- Plan cities for strategic density and mixed use of buildings and urban fabric, so that neighbourhoods have the services they need at the local scale
- Integrate grey, blue and green infrastructure to manage resources and runoff with minimal impact to the environment
- Invest in physical and market infrastructure to better link rural and urban producers and consumers
- Develop smart systems to integrate buildings, mobility and energy systems, including traffic management, distributed EV-charging and integrated planning processes
- Assess and reduce your energy use and carbon footprint
- Make long-term sustainability a core facet of your business and investment practices
- Capitalize on government incentives designed to lower carbon emissions
- Be a leader in sustainable and low-carbon practices
- Educate your consumers and clients about sustainability

A short video to explain climate crisis solutions – Buildings and cities:
https://www.youtube.com/watch?v=ufFX4BjyEWk

Climate Action can be an effective way to communicate key information about the goal and its importance. Here's a simple an infographic:



Things to be done from each individual [17]

- Any contribution, big or small, can make a difference! Find a Goal 13 help you want to support
- Recycle paper, glass, plastic, metal and old electronics in a correct way following the indications
- Composting food scraps can reduce climate impact while also recycling nutrients and increase agriculture production
- Use an eco-bag for shopping and a reusable water bottle or a cup to reduce your plastic waste
- Read the packaging to see if products are produced in an eco-friendly way before buying it
- Save the car trips for when you've got a big group by using a bike, walking or taking public transport (trains if possible)
- The meat production industry has a huge impact on the environment effect, by consuming less meat and become vegetarian for one day a week can help
- Avoid printing and substitute it with electronic devices or carriers.

Individual Actions to support SDG goal 13 and reduce your carbon footprint, you can also contribute by recycling correctly, composting food scraps, using eco-friendly shopping practices, choosing sustainable products, opting for eco-friendly transportation, reducing meat consumption, and embracing paperless living. Remember that every small effort counts in the fight against climate change.

17 https://www.globalgoals.org/goals/13-climate-action/