



TRANSNATIONAL

YOUTH

FORUM

2022

ADVANCING CHILDREN'S RIGHTS
FOR INCLUSIVE ACTION ON CLIMATE CHANGE

FINAL REPORT

CLIMATE CHANGE, GLOBAL CONCERNS AND THE RIGHTS OF FUTURE GENERATIONS



HFC
"Hope
For
Children"

RINOVA
innovate, create & regenerate

NOVA
NOVA SCHOOL
OF LAW



UNIVERSITÀ
DEGLI STUDI
DI TORINO



UNIVERSITÀ
di VERONA



Erasmus+

TABLE OF CONTENTS

GENERAL INTRODUCTION	1
TRANSNATIONAL YOUTH FORUM 2022: CLIMATE CHANGE, GLOBAL CONCERNS AND THE IMPACT ON THE RIGHTS OF THE FUTURE GENERATIONS	2
THE RELATIONSHIP BETWEEN CLIMATE CHANGE, MIGRATION AND THE RIGHTS OF FUTURE GENERATIONS – CYPRUS COUNTRY REPORT BY “HOPE FOR CHILDREN” CRC POLICY CENTER (CY)	4
REDUCING PAPER WASTE BY DIGITALIZING SCHOOLS BY THE ENGLISH SCHOOL (CY)	29
CLIMATE CHANGE, GLOBAL CONCERNS, AND THE IMPACT ON THE RIGHTS OF FUTURE GENERATIONS – POLICY BRIEF BY THE UNIVERSITY OF VERONA (ITA)	59
CLIMATE CHANGE, IMPACTS OF WASTE MANAGEMENT AND RIGHTS OF FUTURE GENERATIONS IN ITALY BY THE UNIVERSITY OF TORINO (ITA)	77
THE ENVIRONMENTAL AND SOCIAL ISSUES LINKED TO FAST FASHION BY RINOVA LTD (UK)	103
CLIMATE CHANGE, GLOBAL CONCERNS, AND THE IMPACT ON THE RIGHTS OF THE FUTURE GENERATIONS BY NOVA SCHOOL OF LAW (PT)	118
CONCLUSION	145



General introduction

Climate change is one of the greatest challenges facing humanity today. Climate change affects every country and can have devastating effects on communities and individuals.¹

A child born today will face unprecedented and life-long health harms from climate change - growing up in a warmer world with risks of food shortages, water scarcity, infectious diseases, and extreme weather conditions - according to major global studies². Children's health and well-being will be increasingly threatened by polluted air from hydrocarbon combustion, extreme temperatures, and natural hazards, compromising their physical and mental conditions and life expectancy.

The planet's long-term warming trend represents a concrete threat. According to an analysis conducted by NASA, the Earth's global average surface temperature in 2020 tied with 2016 as the warmest year on record, and the year's globally averaged temperature is 1.02 °C warmer than the period 1951-1980.³

Human activities – specifically, burning fossil fuels which is responsible for the greenhouse effect that traps energy from the sun and causes Earth's temperature to rise⁴ – are leading our planet on the verge of triggering irreversible, global effects. For this reason, each nation is asked to contribute to reduce the greenhouse gas emissions to a level that will limit global heating to no more than 1.5 °C above pre-industrial levels.⁵

Climate change is a global challenge that does not respect national borders. Addressing this urgent matter requires concrete sustainable solutions concerted at international level, a shared sense of responsibility among policy makers, public and private entities, youth and civil society, and effective cooperation to support developing countries move toward a low-carbon transition.

The impacts of the climate crisis also risk worsening inequality. According to the latest report of the International Monetary Fund, climate risks disproportionately affect the poorest countries and communities, who are more vulnerable to their impacts.⁶ Available evidence indicates three main channels through which the inequality-aggravating effect of climate change materializes:

- Increase in the exposure of the disadvantaged groups to the adverse effects of climate change;
- Increase in their susceptibility to damage caused by climate hazards;
- Disproportionate loss of assets and income (physical, financial, human, and social) and decrease in their ability to recover from the damage suffered.⁷

As a result of the combined direct and indirect effect of the three channels abovementioned, climate change and inequality are locked in a vicious cycle that needs to be replaced with a virtuous and

¹ https://www.international.gc.ca/world-monde/issues_development-enjeux_developpement/environmental_protection-protection_environnement/climate-climatiques.aspx?lang=eng

² The Lancet Countdown on Health and Climate Change, 2019

³ NASA, 2020 Tied for Warmest Year on Record, NASA Analysis Shows, available at <https://www.nasa.gov/press-release/2020-tied-for-warmest-year-on-record-nasa-analysis-shows>

⁴ Suzuki Foundation, What are greenhouse gases?, <https://davidsuzuki.org/what-you-can-do/greenhouse-gases/>

⁵ Harvey F., Major climate changes inevitable and irreversible – IPCC's starkest warning yet, available at: <https://www.theguardian.com/science/2021/aug/09/humans-have-caused-unprecedented-and-irreversible-change-to-climate-scientists-warn>

⁶ Guivarch C., Taconet N., Mejean A., Linking Climate and Inequality, 2021, available at: <https://www.imf.org/external/pubs/ft/fandd/2021/09/climate-change-and-inequality-guivarch-mejean-taconet.htm>

⁷ Islam S. N., Winkel J., Climate Change and Social Inequality, UNDESA working paper n° 152, October 2017, available at: https://www.un.org/esa/desa/papers/2017/wp152_2017.pdf.

sustainable one. Tailored environmental policies based on deeper analyses of the concrete circumstances of each country are essential to address these different inequality-enhancing effects.

At a broad level, these policies could help to achieve the SDGs. SDG 13 calls for mitigation of climate change and it is intrinsically linked to all 16 of the other goals of the 2030 Agenda for Sustainable Development. Joint actions and efforts among and within States could address simultaneously the climate crisis and many other development goals.

Transnational Youth Forum 2022: Climate Change, Global Concerns and the Impact on the Rights of the Future Generations

“Hope For Children” CRC Policy Centre (HFC), advocates and works to protect children’s rights based on the standards and principles of the UN Convention on the Rights of the Child and the European Union Law, regardless of their background. In the framework of the Transnational Youth Forum 2022: Climate Change, Global Concerns and the Impact on the Rights of the Future Generations, a 12-month project (TYF 2022: 2020-3-CY02-KA347-001971) funded by the Erasmus + programme of the European Commission; HFC in collaboration with partners from 4 European countries (Cyprus, Italy, Portugal and the United Kingdom) developed this innovative Forum.

The main aim of the TYF2022 project is to bring together young participants, aged 16-30 years old, from different European countries to interact, discuss and exchange ideas between them and the policy makers highlighting the importance of climate change and its negative impact on human rights. Through the proposed activities, the participants have the opportunity to develop all necessary skills and gain knowledge on the topic of climate change. The learning process of the participants is continued and is designed to be not only a personal, but also a collaborative experience with elements of interaction which offer knowledge, skills, and expertise. The participants come from a wide variety of social and academic backgrounds, an aspect which is important for sharing ideas, developing creativity, and acquiring more awareness on the interlinkages between climate change and human rights. At the same time, they are encouraged to create a network for possible future collaboration. The TYF final event will take place on March 16-17, 2022, in Nicosia and is made possible by HFC’s staff alongside the support of the partners and the effective contribution of the young participants.

Although, some efforts have been made by UN agencies, Governments, INGOs, and environmental organizations to take action on Climate Change such as the United Nations Framework Convention on Climate Change (1992), The Kyoto Protocol (1997), The Copenhagen Summit (2009), the Paris Agreement (2015) and the European Green Deal (2019), it is essential to sensitize the general public on the urgency of climate change and actively engage young people who are the future of our planet. The TYF 2022 partnership campaigns tirelessly for the protection of future generations’ rights and calls for the protection of the planet by raising awareness on the interlinkages between the environmental crisis and the fulfilment of fundamental rights, collaborating at transnational level, and transferring the knowledge and skills to the young participants.

The TYF 2022 is giving the opportunity to more than 30 young participants from Cyprus, Italy, UK, Portugal, Congo (DRC), Ivory Coast, Somalia and Syria to research and deepen their knowledge on the effects of climate change in their local context and at global level.

The participants, divided into six working teams, analyzed several topics including the linkages between migration and climate change, environmental refugees, paper waste and the benefits of digitalizing schools, the fast fashion industry, waste management from electric and electronic equipment (WEEE),

nature-based solutions, climate change laws, and preventive and adaptive measures. Each group prepared a country report presenting the topic of interest and its impact at the local level.

This report is based on the contributions prepared by the young participants with the supervision of their tutors.



CYPRUS



THE RELATIONSHIP BETWEEN CLIMATE CHANGE, MIGRATION, AND THE RIGHTS OF FUTURE GENERATIONS

SUPERVISORS: ARIANNA TORTELLI, MARIA LUISA COLLI
PARTICIPANTS: D. M., I. S., M. H., Y. A., D. I. O., N. O., A. A.



Contents

1. Introduction
2. Climate change as a threat multiplier of migration
3. Environmental key vulnerabilities in Syria, Somalia, DRC, Ivory Coast
4. Cyprus: climate change hotspot
 - 4.1. The Mediterranean hotspot
 - 4.2. Stop burning fossil fuels
 - 4.3. Global carbon inequality
5. The role of the youth in leading the mindset shift towards a more sustainable way of living
6. Conclusion
7. Bibliography
8. Annexes

1. Introduction

The youth of today are the decision makers of tomorrow and they are the key to moving the world onto a climate-friendly path. New generations have increasingly strong social and environmental awareness and have access to innovative tools to shape a climate resilient future. The active engagement of young generations in tackling the environmental crisis is crucial in influencing the general perception at local and international level, protecting our nature, promoting renewable energy, adopting environmentally friendly practices, and urging decision makers to take concrete actions to combat adverse effects of climate change.

Climate change and disaster displacement are defining our time. Recent years have seen increased extreme weather events, ranging from prolonged droughts, heavy storms, floods, and wildfires. According to the UN Refugee Agency, these natural hazards are wreaking havoc on people's livelihoods and exacerbating social inequalities, forcing an average of more than 20 million people to leave their homes and move to other areas within or across countries each year.¹

In the framework of the "Transnational Youth Forum 2022: Climate Change, Global Concerns and the Rights of Future Generations", Hope for Children organized two national events in June 2021 to introduce the topic of climate change and intergenerational justice with the relevant contributions of local stakeholders, environmental NGOs and youth-led organizations. On the 7th and 10th of November 2021, HFC delivered two project-based workshops to eight unaccompanied minors hosted at the Nicosia Shelter with the valuable participation of a biologist from Terra Cypria – The Cyprus Environmental Foundation. The main learning outcomes were sensitizing the youngsters on the destabilizing impact of climate change in their countries of origin and in Cyprus, while empowering them with additional sets of knowledge and digital tools for monitoring the ongoing climate crisis. Combining the project-based learning and the participatory research method, the participants collected data on the environmental crisis, global heating and the climate-related drivers of mobility. At a later stage, they produced five interactive visual sheets (see annexes) on Canva and Thinglink to present the results of their research.

¹ UNHCR, Climate change and disaster displacement, available at: <https://www.unhcr.org/climate-change-and-disasters.html>

2. Climate change as a threat multiplier of migration

Since 2010, climate shocks and natural disasters have forced around 21.5 million people a year to move², affecting disproportionately countries around the world. Previous research into climate-related drivers of migration indicate that climate-induced mobility serves as an adaptation strategy and occurs mostly in the form of short-distance and internal movements within countries, and mainly from rural to urban areas.³ Movement in response to environmental and climate-induced impacts often occurs at first internally and might be followed by international migration after the accumulation of sufficient financial and social resources. In this context, the role of climate-related drivers of mobility are difficult to distinguish from the many other factors that impact migration decision-making.⁴ Environmental and climate-related factors are often referred to as a stress multiplier of migration or something that exacerbates other challenges: they compound other complex factors, like livelihood opportunities and conflict, that motivate temporary or permanent movement of peoples from their communities of origin. Ongoing research projects confirm that there are different responses to the same types of climatic change events that can vary based on local, household or individual contexts.⁵

Adverse effects of climate change induce natural hazards and extreme weather, affecting directly and indirectly the life of entire communities and creating additional risks like food and water insecurity and competition over natural resources, which contribute to conflict and compound displacement.⁶ Those hit hardest by natural hazards haven't been categorized as eligible for international protection since there is not yet any international consensus on a legal definition for a "climate migrant" and/or "climate refugee" under international law.

António Guterres, UN Secretary-General and former UN High Commissioner for Refugees, stated: "Climate change is now found to be the key factor accelerating all other drivers of forced displacement. Most of the people affected will remain in their own countries. They will be internally displaced. But if they cross a border, they will not be considered refugees. These persons are not truly migrants, in the sense that they did not move voluntarily. As forcibly displaced not covered by the refugee protection regime, they find themselves in a legal void".⁷

Although the term "climate refugees" was first coined to describe the increasing large-scale migration and cross-border mass movements of people affected by weather-related disasters⁸ and it's largely used to provoke political debates, the concept doesn't entirely exist in international refugee law.

² UN News, Climate change link to displacement of most vulnerable is clear: UNHCR, April 2021, available at: <https://news.un.org/en/story/2021/04/1090432>

³ Linekar J., Litzkow J., Forced displacement and (im)mobility: what's climate change got to do with it?, Mixed Migration Centre, June 2021, available at: <https://mixedmigration.org/articles/forced-displacement-and-immobility-whats-climate-change-got-to-do-with-it/>

⁴ *Idem*

⁵ Tietjen B., Westlund H., Defining Climate Migration, The Fletcher School - Tufts University, February 2021, available at: <https://www.climatepolicylab.org/climatesmart/2021/2/8/defining-climate-migration>

⁶ Available at: <https://www.climate-refugees.org/why>

⁷ Available at: <https://www.unhcr.org/admin/hcspeeches/4ecd0cde9/statement-mr-antonio-guterres-united-nations-high-commissioner-refugees.html>

⁸ Available at: <https://www.weforum.org/agenda/2021/06/climate-refugees-the-world-s-forgotten-victims/>

3. Environmental key vulnerabilities in Syria, Somalia, DRC, Ivory Coast

In light of this context analysis, the young participants conducted research exploring which dimensions are mostly impacted by climate change in Cyprus and in their countries of origin, specifically in Syria, Somalia, Democratic Republic of Congo (DRC) and Ivory Coast.



Image 1: It shows recent extreme weather events in Cyprus, Syria, Somalia, DRC and Ivory Coast. Map prepared on Canva.

As extreme events are the new norm, people face greater challenges in terms of health effects, food and water security, livelihoods, access to quality education, migration, cultural identity, and natural resources-induced conflicts.⁹

The young participants prepared five country fact sheets (see Annexes 1-5), highlighting the natural resources present on each territory, the key vulnerabilities, and threats in each area due to the climate crisis, the Climate Risk Index (ranking 2000-2019) and other reliable data showing the increasing average annual temperature and trend of rainfall. They gathered official data visiting specific resources on the Climate Change Knowledge Data Portal of the World Bank¹⁰, the Global Forest Watch map¹¹ and the German Watch Institute¹². The latter recently published the Global Climate Risk Index 2021 for the period 2000-2019, which is based on the impacts of extreme weather events on countries and the consequent socio-economic losses. It gives a broad and clear picture of the most affected places by climate change today.

⁹ Available at: <https://www.worldbank.org/en/topic/social-dimensions-of-climate-change#1>

¹⁰ Available at: <https://climateknowledgeportal.worldbank.org/country/somalia/overview>

¹¹ Available at: <https://www.globalforestwatch.org/map/>

¹² Available at: <https://germanwatch.org/en/19777>

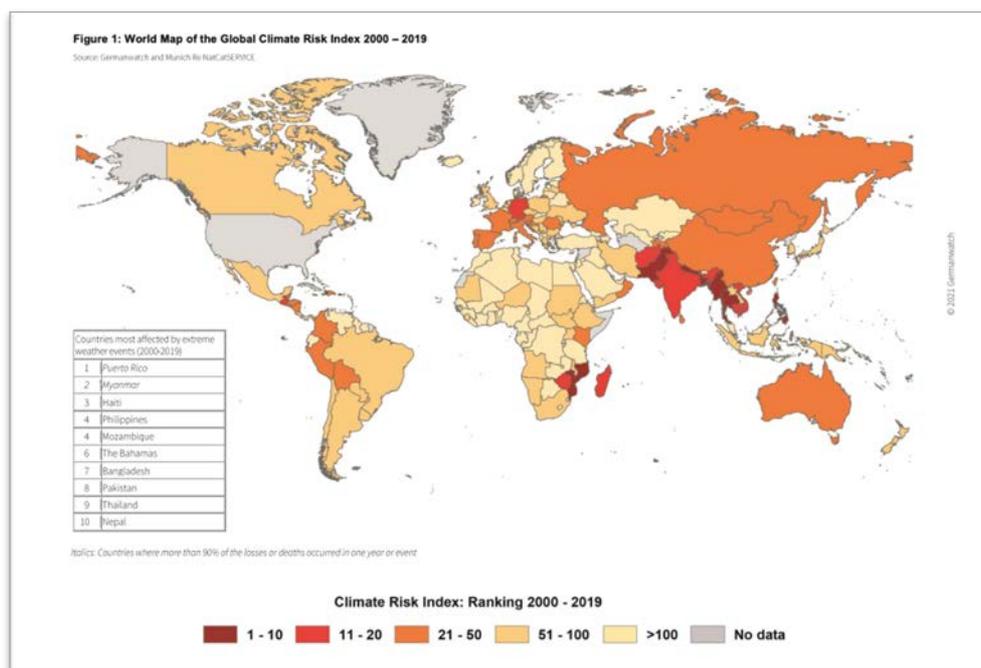


Image 2: World Map of the Global Climate Risk Index 2000-2019. Source: https://germanwatch.org/sites/default/files/Global%20Climate%20Risk%20Index%202021_2.pdf

As shown in image 2 and in the country fact sheets, the climate crisis is a global phenomenon and affects every country in the world. However, its impact is not felt equally everywhere. The countries most likely to suffer in the battle against climate change are often the planet's poorest and least developed, as they lack the resources and infrastructures to bounce back after catastrophic weather events.¹³

The most frequent weather events identified among the countries analysed are:

- Droughts (expected to get more frequent, intense, and longer lasting)
- Heat waves
- Wildfires
- Flash floods
- Landslides
- Heavy storms.

As effects of the natural hazards mentioned above, local communities across the world suffer of:

- Water scarcity, destruction of water facilities and water-related conflicts
- Food insecurity, damaged crops, reduced agricultural yields, pests and diseases of plants
- Increased costs of clean water and food
- Health matters including epidemic, traumatic exposures and infectious diseases due to weather events
- Loss of houses and sanitation infrastructures and consequently poor living conditions
- Limited access to education
- Forced mobility.

¹³ Available at: <https://thehill.com/changing-america/sustainability/climate-change/526970-the-10-countries-most-likely-to-survive-the>

In this perspective, climate change represents an urgent human rights issue.

Fundamental rights are intimately linked with climate change because of its devastating effect on the environment and our own health and wellbeing. In addition to threatening our essential right to life, climate change is having harmful impacts on our rights to health, food, water, education, housing and livelihoods.¹⁴ The Earth's climate is changing more rapidly than previous times and its effects will continue to worsen over the next decades, affecting directly and disproportionately current and future generations. According to Amnesty International, the failure of governments to act on the climate crisis in the face of overwhelming scientific evidence could turn into the biggest inter-generational human rights violation in history.

4. Cyprus: climate change hotspot

In the project's framework, as well as delving into the harmful impacts of the climate crisis on local communities in African and Middle Eastern countries, the HFC working group has been researching the consequences of the current climate emergency in the Mediterranean, specifically in Cyprus.

A specific discussion and reflection on the topic, has been led by Orestis Karghotis who works as Education and Research Officer at Terra Cypria – The Cyprus Environmental Foundation. The young participants interviewed him as a biologist and member of an environmental NGO promoting environmental awareness and protection in Cyprus through education, policy advocacy and conservation actions.

The conversation unfolded around three topics:

- The Mediterranean hotspot
- The renewable energy and the negative impact of burning fossil fuels
- The inequalities across countries and climate change
- The role of youth

During the interview, three participants reported the answers to their curiosities on the Thinglink platform, creating a visual product that contains sources, interesting facts, and multimedia materials about the climate outbreak in Cyprus (see annexes).

4.1. The Mediterranean hotspot

Given the geographical position of the island at the south-eastern end of the Mediterranean Sea and Europe, Cyprus is considered as one of the most sensitive hot spots and most vulnerable regions in the world regarding climate change.¹⁵ This makes the country highly vulnerable to the impacts of climate change from significant rising in temperature resulting in increase in the frequency and intensity of droughts and hot weather conditions.¹⁶

According to high-level research collaborations with European Research Institutes, the Cyprus Institute conducted analysis indicating mean temperature rises of about 1 to 3°C in the next three decades, of 3 to 5°C by mid-century and 3.5 to 7°C by the end of the century placing Eastern Mediterranean and the Middle East ahead of most other places on the globe in terms of projected temperature changes.¹⁷ According to the model results, in the period 2020-2050 the Mediterranean island will experience an

¹⁴ Available at: <https://www.amnesty.org/en/what-we-do/climate-change/>

¹⁵ Available at: <https://climateknowledgeportal.worldbank.org/country/cyprus>

¹⁶ Available at: <https://climateknowledgeportal.worldbank.org/country/cyprus>

¹⁷ Available at: <https://www.cyi.ac.cy/index.php/eewrc/eewrc-research-projects/climate-change-and-impact.html>

increase in extremely hot summer days with maximum temperatures exceeding 38° C and tropical nights with minimum temperatures above 25° C for an additional one month compared to current conditions. By the end of the century the number of hot days per year in Nicosia will increase by two months, resembling conditions currently experienced in cities like Cairo or Bahrain.¹⁸ An additional threat is represented by the estimated reductions of rainfall of 10-15% over the 2020 to 2050 period. According to the experts, changes in climate and weather patterns will cause public health concerns related to the reduction in air and living quality. More frequent episodes of Sahara dust transports to the island will lead to increases in atmospheric mineral dust and aerosol concentrations, resulting in rising cases of respiratory illnesses.¹⁹ Following this warming trend, marine ecosystems and agriculture production will be highly impacted.

In light of the above, the experts suggest immediate individual and collective actions to address the climate crisis. They call to concrete and impactful actions within the next ten years to contain the abovementioned consequences.

4.2. Stop burning fossil fuels

With approximately 340 sunny days per year, Cyprus is still struggling to increase its use of renewable power. In 2019, just 13.8 % of its energy came from solar and wind energy, well below the 19.7 % European average, according to Eurostat data.²⁰

Since the Industrial Revolution, fossil fuels have become the dominant energy source for most countries across the world, but the burning of fossil fuels – coal, oil, and gas – is responsible for around three-quarters²¹ of global greenhouse gas emissions. They are also a major source of air pollution, which is responsible for at least five million premature deaths every year.²²

The Republic of Cyprus seeks to expand the share of renewable energy sources (RES) in its energy mix - the balance of sources of energy in the supply – which is becoming increasingly important as countries try to shift away from fossil fuels towards low-carbon sources of energy (nuclear or renewables including hydropower, solar and wind).²³ Meeting EU mandated reductions in carbon emissions will require increased investment in clean energy generation and a major transformation of road transportation, which will be the major challenge for the country.

¹⁸ Available at: <https://www.cyi.ac.cy/index.php/eevrc/eevrc-research-projects/climate-change-and-impact.html>

¹⁹ Available at: <https://www.cyi.ac.cy/index.php/eevrc/eevrc-research-projects/climate-change-and-impact.html>

²⁰ Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Share_of_energy_from_renewable_sources_2019_data,15Jan2021.JPG

²¹ Available at: <https://ourworldindata.org/emissions-by-fuel>

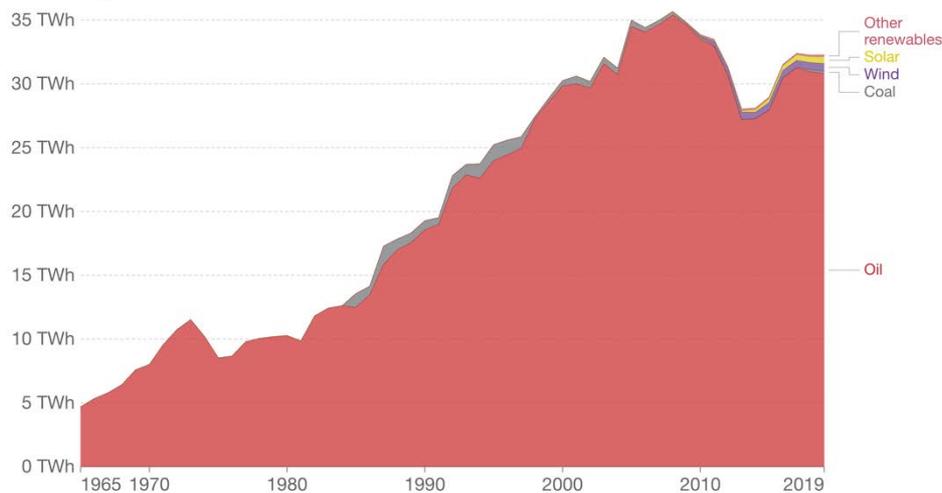
²² Available at: <https://ourworldindata.org/air-pollution>

²³ Available at: <https://ourworldindata.org/energy/country/cyprus>

Energy consumption by source, Cyprus

Primary energy consumption is measured in terawatt-hours (TWh). Here an inefficiency factor (the 'substitution' method) has been applied for fossil fuels, meaning the shares by each energy source give a better approximation of final energy consumption.

Our World
in Data



Source: BP Statistical Review of World Energy

Note: 'Other renewables' includes geothermal, biomass and waste energy.

OurWorldInData.org/energy • CC BY

Image 3: Energy consumption by source (oil, coal, wind, solar, other renewables) - Cyprus, 2019.

Cyprus announced to boost its share of renewable energy, mainly the solar one, to 23 percent by 2030 as part of its National Energy and Climate Plan. The government has introduced programs for electric vehicles (EV) and has eighteen double charging stations throughout the island which it plans to increase soon.

Civil societies organizations and environmental NGOs are striving for the right of people to choose affordable, renewable and sustainable energy sources through decentralized, democratic and community-based campaigns and projects.²⁴ The activists demand from the government to implement and enforce strong national emissions reduction programs and targets, and to phase out fossil fuels which are mining the environment and human health.

4.3. Global carbon inequality

Historical emissions inequality between regions are very large: North America and Europe are responsible for around half of all emissions since the Industrial Revolution. China represents about 11% of the historical total and Sub-Saharan Africa just 4%.²⁵

²⁴ Available at: <https://www.foecyprus.org/project/climate-justice-and-energy-sovereignty/?cn-reloaded=1>

²⁵ Chancel L., Climate change & the global inequality of carbon emissions - 1990-2020, World Inequality Lab, Paris School of Economics and Sciences Po, December 2021, available at: <https://wid.world/document/climate-change-the-global-inequality-of-carbon-emissions-1990-2020-world-inequality-lab-working-paper-2021-21/>

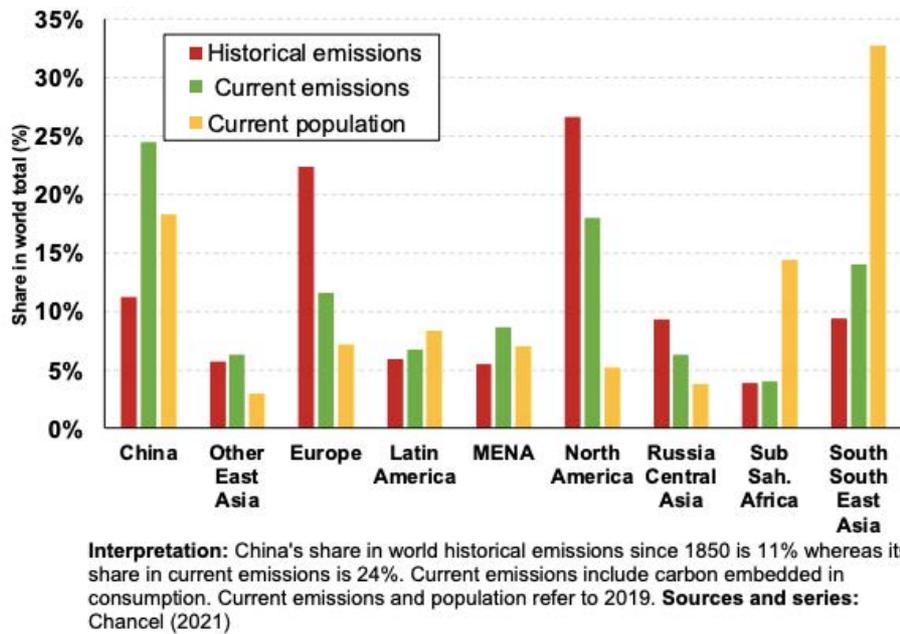


Image 4: Historical and current emissions and population across world regions. Source: Chancel L., Climate change & the global inequality of carbon emissions - 1990-2020, World Inequality Lab, Paris School of Economics and Sciences Po, December 2021, p.10

According to the latest paper of the World Inequality Lab, at the global level the top 10% of global emitters (771 million individuals) emit on average 31 tonnes of CO2 per person per year and are responsible for about 48% of global CO2 emissions. The bottom 50% are responsible close to 12% of global carbon emissions in 2019 (3.8 billion individuals who emit on average 1.6 tonnes per person). The global top 1% contribute to 17% of CO2 emissions in a year (they emit on average 110 tonnes).²⁶

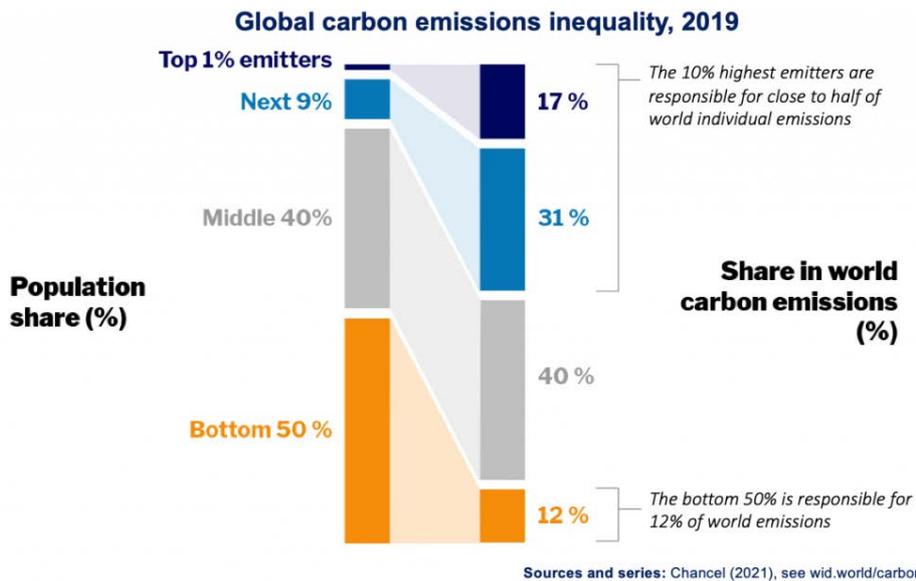


Image 5: Global carbon emissions inequality, 2019. Source: Chancel L., Climate change & the global inequality of carbon emissions - 1990-2020, World Inequality Lab, Paris School of Economics and Sciences Po, December 2021.

²⁶ *Idem*

According to the author, this is not simply a rich versus poor countries divide: there are huge emitters in poor countries and low emitters in rich countries. For example, in Europe, the poorest 50% of the population emits about five tonnes of CO₂ per person, while the richest 10% emits about 30 tonnes.²⁷ The rich side emits more carbon through the goods and services they buy, as well as from the investments they make. While, low-income groups emit carbon when they use their cars or heat/AC at their homes, but their indirect emissions from the stuff they buy are significantly lower than those of the rich. The poorest half of the population barely owns any wealth, meaning that it has little or no responsibility for emissions associated with investment decisions.²⁸

Looking at the data presented in the analysis above, obviously some groups should make a greater effort than others to reduce emissions. Intuitively, the big emitters in each country and across countries should take concrete actions to decarbonize their consumption and poorer people should be given the capacity to cope with the energy transition.

5. The role of the youth in leading the mindset shift towards a more sustainable way of living

The direct involvement of young people is essential to address climate change and other human actions harming the environment. Changes in consumer's behaviours towards more sustainable patterns can happen through education programs, awareness raising campaigns, citizen science, observation and monitoring of their environmental impacts, civic engagement and social innovation.²⁹ The direct engagement of citizens and communities in contributing to climate action can change their personal behaviour and influence the other's mindsets, maintaining high the attention on this "hot" topic, reducing their carbon and environmental footprint and taking action at the individual and collective level.

The young generation, regardless its members' origin, education background and age, is the key actor to advocate for climate justice, inspire actions among others and switch to a more respectful relationship with the environment. Through education, volunteering programs and other form of active citizenship, the global youth can make an effective step towards a more sustainable society by reducing emissions, decreasing the use of plastic, and strengthening environmental awareness. Through their effective empowerment, they can become ambassadors for climate action, sharing their knowledge, skill, experience and engagement with their families, local communities, public and private decision makers, as well as through mass media communication and the use of social media.

Emerging study suggests youth activism can promote behaviour and policy change in some contexts including climate change.³⁰ Recent research showed evidence that adults looked to the opinions of young people in their community for direction on how to prepare for the future and preserve it for

²⁷ Chancel L., The richest 10% produce about half of greenhouse gas emissions. They should pay to fix the climate, The Guardian, December 2021, available at: <https://www.theguardian.com/commentisfree/2021/dec/07/we-cant-address-the-climate-crisis-unless-we-also-take-on-global-inequality>

²⁸ Available at: https://wid.world/world/#shweal_pOp50_z/US;FR;DE;CN;ZA;GB;WO/last/eu/k/p/yearly/s/false/-9.318499999999998/20/curve/false/country

²⁹ Available at: <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-gd-10-3-2020>

³⁰ Haynes K., and Tanner T. M., Empowering Young People and Strengthening Resilience: Youth-Centred Participatory Video as a Tool for Climate Change Adaptation and Disaster Risk Reduction. *Children's Geographies* 13 (3), 2015, pp. 357–371

coming generations.³¹ This is consistent with other research projects demonstrating that when young people are empowered and have high levels of agency, their concrete policy suggestions are generally well-received by adults.³² In short, evidence supports that environmental activism is shaping adult environmental perceptions³³ and meaningful civic education for young people³⁴ can empower young people and adults to become more caring and aware citizens.

6. Conclusion

The Earth is now home to the largest generation of youth in history, with around 1.8 billion young people between the ages of 10 to 24³⁵ who will bear the costs of inaction on the climate crisis. Provided with the necessary knowledge, skills and opportunities needed to reach their potential, young people can be a driving force for supporting the shift to more sustainable lifestyles by raising their voice to policy makers and advocating for the protection of the rights of Future Generations.

In the framework of the Transnational Youth Forum 2022, HFC young participants from Somalia, Syria, DRC and Ivory Coast had the chance to deepen their knowledge of climate change and its detrimental threats to human health, safety and security interacting directly with local stakeholders and HFC officers. Given the intercultural and international features of the group, the participants had the opportunity to access evidence-based information to build a broader and well-informed picture of the global phenomenon of climate change and its different consequences in each country.

Supported with adequate resources and strengthened with innovative tools, young people have the power to mobilise others, bring fresh perspectives and challenge existing barriers to change. They are connected to each other like never before and their range of action is wider and goes beyond national borders.

³¹ Hartley J. M., Higgins K. M., Peterson M. N., Stevenson K. T. and Jackson M. W., Perspective From a Youth Environmental Activist: Why Adults Will Listen to Youth in Politics. *Front. Polit. Sci.*, June 2021, available at: <https://www.frontiersin.org/articles/10.3389/fpos.2021.636583/full#B17> h

³² Thew, H., Youth Participation and agency in the United Nations Framework Convention on Change. *Int. Environ. Agreements: Polit. L. Econ.* 18 (3), 369–389, 2018

³³ Hartley, J. M., Stevenson, K. T., Peterson, M. N., De Mattia, E. A., Paliotti, S. T., and Fairbairn, T. J. (2021). Youth Can Promote marine Debris Concern and Policy Support Among Local Voters and Political Officials. *Front. Polit. Sci.*, 3 2021

³⁴ Brodie-McKenzie A., Empowering Students as Citizens: Subjectification and Civic Knowledge in Civics and Citizenship Education. *J. Appl. Youth Stud.* 3 (3), 2020, pp. 209–222

³⁵ Available at: <https://www.coe.int/en/web/world-forum-democracy/12-months-1-question-june-2021>

7. Bibliography

- Brodie-McKenzie A., Empowering Students as Citizens: Subjectification and Civic Knowledge in Civics and Citizenship Education. *J. Appl. Youth Stud.* 3 (3), 2020, pp. 209–222
- Chancel L., Climate change & the global inequality of carbon emissions - 1990-2020, World Inequality Lab, Paris School of Economics and Sciences Po, December 2021, available at: <https://wid.world/document/climate-change-the-global-inequality-of-carbon-emissions-1990-2020-world-inequality-lab-working-paper-2021-21/>
- Chancel L., The richest 10% produce about half of greenhouse gas emissions. They should pay to fix the climate, *The Guardian*, December 2021, available at: <https://www.theguardian.com/commentisfree/2021/dec/07/we-cant-address-the-climate-crisis-unless-we-also-take-on-global-inequality>
- Hartley J. M., Higgins K. M., Peterson M. N., Stevenson K. T. and Jackson M. W., Perspective From a Youth Environmental Activist: Why Adults Will Listen to Youth in Politics. *Front. Polit. Sci.*, June 2021, available at: <https://www.frontiersin.org/articles/10.3389/fpos.2021.636583/full#B17> h
- Hartley, J. M., Stevenson, K. T., Peterson, M. N., De Mattia, E. A., Paliotti, S. T., and Fairbairn, T. J. (2021). Youth Can Promote marine Debris Concern and Policy Support Among Local Voters and Political Officials. *Front. Polit. Sci.*, 3 2021
- Haynes K., and Tanner T. M., Empowering Young People and Strengthening Resilience: Youth-Centred Participatory Video as a Tool for Climate Change Adaptation and Disaster Risk Reduction. *Children's Geographies* 13 (3), 2015, pp. 357–371
- Linekar J., Litzkow J., Forced displacement and (im)mobility: what's climate change got to do with it?, Mixed Migration Centre, June 2021, available at: <https://mixedmigration.org/articles/forced-displacement-and-immobility-whats-climate-change-got-to-do-with-it/>
- Thew, H., Youth Participation and agency in the United Nations Framework Convention on Change. *Int. Environ. Agreements: Polit. L. Econ.* 18 (3), 369–389, 2018
- Tietjen B., Westlund H., Defining Climate Migration, The Fletcher School - Tufts University, February 2021, available at: <https://www.climatepolicylab.org/climatesmart/2021/2/8/defining-climate-migration>
- UN News, Climate change link to displacement of most vulnerable is clear: UNHCR, April 2021, available at: <https://news.un.org/en/story/2021/04/1090432>
- UNHCR, Climate change and disaster displacement, available at: <https://www.unhcr.org/climate-change-and-disasters.html>

Links:

- <https://www.climate-refugees.org/why>
- <https://www.unhcr.org/admin/hcspeeches/4ecc0cde9/statement-mr-antonio-guterres-united-nations-high-commissioner-refugees.html>
- <https://www.weforum.org/agenda/2021/06/climate-refugees-the-world-s-forgotten-victims/>
- <https://www.worldbank.org/en/topic/social-dimensions-of-climate-change#1>
- <https://climateknowledgeportal.worldbank.org/country/somalia/overview>
- <https://www.globalforestwatch.org/map/>
- <https://germanwatch.org/en/19777>
- <https://thehill.com/changing-america/sustainability/climate-change/526970-the-10-countries-most-likely-to-survive-the>
- <https://www.amnesty.org/en/what-we-do/climate-change/>
- <https://climateknowledgeportal.worldbank.org/country/cyprus>

- <https://climateknowledgeportal.worldbank.org/country/cyprus>
- <https://www.cyi.ac.cy/index.php/eevrc/eevrc-research-projects/climate-change-and-impact.html>
- <https://www.cyi.ac.cy/index.php/eevrc/eevrc-research-projects/climate-change-and-impact.html>
- <https://www.cyi.ac.cy/index.php/eevrc/eevrc-research-projects/climate-change-and-impact.html>
- [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Share of energy from renewable sources 2019 data,15Jan2021.JPG](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Share_of_energy_from_renewable_sources_2019_data,15Jan2021.JPG)
- <https://ourworldindata.org/emissions-by-fuel>
- <https://ourworldindata.org/air-pollution>
- <https://ourworldindata.org/energy/country/cyprus>
- <https://www.foecyprus.org/project/climate-justice-and-energy-sovereignty/?cn-reloaded=1>
- https://wid.world/world/#shweal_p0p50_z/US;FR;DE;CN;ZA;GB;WO/last/eu/k/p/yearly/s/false/-9.318499999999998/20/curve/false/country
- <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-gd-10-3-2020>
- <https://www.coe.int/en/web/world-forum-democracy/12-months-1-question-june-2021>

8. Annexes

- Cyprus - Fact Sheet and Physical Map
- Congo (DRC) - Fact Sheet and Physical Map
- Ivory Coast - Fact Sheet and Physical Map
- Somalia - Fact Sheet and Physical Map
- Syria - Fact Sheet and Physical Map

CYPRUS

CAPITAL: NICOSIA

TOT. AREA: 9,251 KM²

POPULATION: 1.2 MILLION (2020)

AVERAGE AGE: 37,5

POPULATION DENSITY: 131 PER KM²

LIFE EXPECTANCY: 81,5

NATURAL RESOURCES

OIL AND GAS: HYDROCARBON RESOURCES

PROTECTED AREAS: 122 PROTECTED AREAS IN CYPRUS, 63 NATURA 2000 SITES - 30 SPECIAL PROTECTION AREAS (BIRDS DIRECTIVE) AND 47 SITES OF COMMUNITY IMPORTANCE (HABITAT DIRECTIVE) - AS WELL AS 59 SITES DESIGNATED UNDER NATIONAL LAWS

WATER RESOURCES: SCARCITY

DRIVERS OF TREE COVER LOSS:

TOTAL FOREST AREA: 16% OF THE LAND AREA

2019	
Total	28ha
● Shifting Agriculture	12ha
● Forestry	2ha
● Commodity Driven Deforestation	14ha

NATURAL HAZARDS AND KEY VULNERABILITIES

DROUGHT (INCREASED FREQUENCY AND INTENSITY)

HEAT WAVES (INCREASED FREQUENCY AND INTENSITY)

DESERTIFICATION

SEA LEVEL RISE

LOW RAINFALL

WILDFIRE

STORMS

EARTHQUAKES

INTERESTING FACTS ABOUT CLIMATE CHANGE

AVERAGE ANNUAL TEMPERATURE IN 1920: 18,26 °C

AVERAGE ANNUAL TEMPERATURE IN 2020: 20,47 °C

TREND OF RAINFALL: DECREASING TREND OF RAINFALL AMOUNTS OBSERVED IN THE LAST 116 YEARS. ANNUAL PRECIPITATION IN CYPRUS HAS ON AVERAGE DECREASED BY ABOUT 100MM IN THE LAST 85 YEARS.



CONGO (RDC)

CAPITALE: KINSHASA

EXTENSION TOTALE (KM²): 2 345 410 KM2

POPULATION: 105 059 000 (ESTIM. 2021)

ÂGE MOYENNE: 58,1

DENSITÉ DE POPULATION (KM2): 44.8 (ESTIM. 2021)

ESPÉRANCE DE VIE: 60,03

RESSOURCES NATURELLES

PÉTROLE ET GAZ: PÉTROLE (90% DES EXPORTATIONS)

SUPERFICIE TOTALE DES FORÊTS: 85%

RESSOURCES EN EAU: 57%

TREE COVER IN DEMOCRATIC REPUBLIC OF THE CONGO

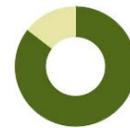
As of 2000, 85% of Democratic Republic of the Congo was natural forest cover.

PERTE DU COUVERT VÉGÉTAL : 7.3% DEPUIS 2000

● Natural Forest
199Mha

● Plantations
170kha

● Non-Forest
33.6Mha

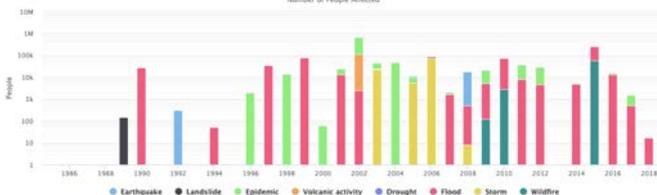


CATASTROPHES NATURELLES ET VULNÉRABILITÉS PRINCIPALES

- ÉRUPTION VOLCANIQUE À GOMA
 - DÉFORESTATION
 - ÉPIDÉMIES
 - CONFLITS VIOLENT: DES REBELLES À BENI
 - LES CATASTROPHE PERSISTENT ET EXACERBENT LES VULNERABILITÉS
 - LE RECHAUFFEMENT CLAMATIQUE
- INDICE DE RISQUE CLIMATIQUE - CLASSEMENT 2000-2019: MOYEN

Key Natural Hazard Statistics for 1985-2018

Number of People Affected



FACTS INTÉRESSANT PAR RAPPORT AU CHANGEMENT CLIMATIQUE

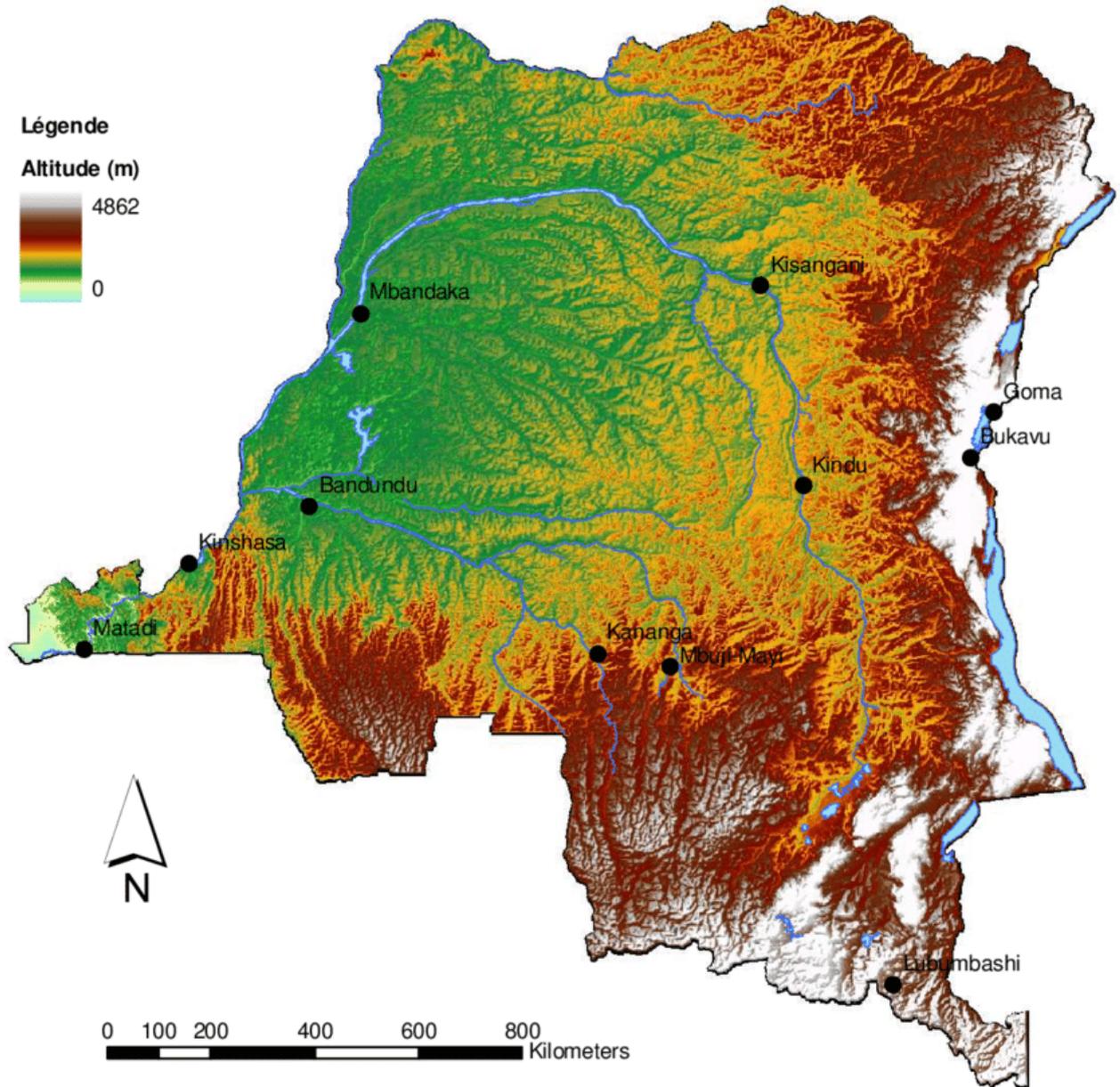
TEMPÉRATURE MOYENNE ANNUELLE EN 1920: 23.97°C

TEMPÉRATURE MOYENNE ANNUELLE EN 2020: 24.5°C

TENDANCES DES PRÉCIPITATIONS: AUGMENTATION DES PLUIES ANNUELLES AVEC UN CHANGEMENT DE -4 À +8 D'ICI À 2030.



CARTE DU PAYS



CÔTE D'IVOIRE

CAPITALE: YAMOOUSSOUKRO (POLITIQUE),
ABIDJAN (ÉCONOMIQUE)

EXTENSION TOTALE (KM²): 322 462

ÂGE MOYENNE: 18.9

POPULATION: 28,088,455 MILLION

ESPÉRANCE DE VIE: 58,7 ANS

DENSITÉ DE POPULATION (KM2): 87 PERSONNES

RESSOURCES NATURELLES

SUPERFICIE TOTALE: 322.462KM

SUPERFICIE TOTALE DES FORÊTS: 2,5
MILLIONS D'HECTARES EN 2021

PÉTROLE ET GAZ: LARGES RÉSERVES DE
PÉTROLE ET DE GAZ

PERTE DU COUVERT VÉGÉTAL: LE PAYS
A PERDU PLUS DE 80% DE SON
COUVERT FORESTIER

RESSOURCES EN EAU: 4462 KM2 , SOIT 1.38
DE LA SUPERFICIE TOTALE DU PAYS

CATASTROPHES NATURELLES ET VULNÉRABILITÉS PRINCIPALES

- INONDATIONS (DANS LE SUD DU PAYS)
- GLISSEMENT DE TERRAIN
- SÉCHERESSE (RÉGION DE LA SAVANE SEMI-ARIDE DU NORD)
- MALADIE INFLUENCÉES PAR DES PARAMÈTRES CLIMATIQUE: LE PALUDISME, LE CHOLÉRA ET LA MÉNINGITE
- MANQUE D'ACCÈS À L'EAU

INDICE DE RISQUE CLIMATIQUE -
CLASSEMENT 2000-2019: MOYEN/FAIBLE

FACTS INTÉRESSANT PAR RAPPORT AU CHANGEMENT CLIMATIQUE

**TEMPÉRATURE MOYENNE ANNUELLE
EN 1920:** 26.25

**TEMPÉRATURE MOYENNE ANNUELLE
EN 2020:** 27.13

TENDANCES DES TEMPÉRATURES: LES
TEMPÉRATURES ANNUELLES
MOYENNES DEVRAIENT AUGMENTER
DE 3°C À 6°C D'ICI LA FIN DU XXI
SIÈCLE

TENDANCES DES PRÉCIPITATIONS:
AUGMENTATION PENDANT LA SAISON
DES PLUIES



CARTE DU PAYS



SOMALIA

CAPITAL: MOGADISHO

TOT. AREA: 627,340 KM²

POPULATION: 15,89 MILLION

AVERAGE AGE: 16.7

POPULATION DENSITY: 25 PER KM²

LIFE EXPECTANCY: 57.40

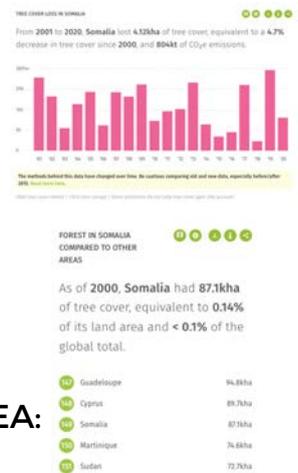
NATURAL RESOURCES

OIL AND GAS: LARGE GAS AND OIL RECENT DISCOVERIES

TREE COVER LOSS:

WATER RESOURCES: DECLINING GROUND WATER LEVELS DRIVE UP WATER PRICES AND MORE THAN 2.3 MILLION PEOPLE AFFECTED BY WATER SCARCITY

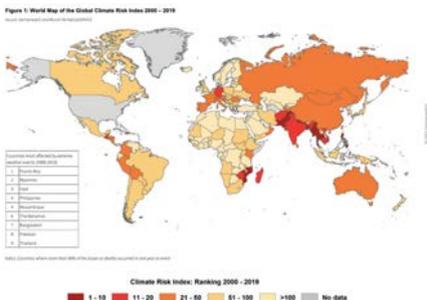
TOTAL FOREST AREA:



NATURAL HAZARDS AND KEY VULNERABILITIES

- DROUGHT
- WATER SCARCITY
- FLOODS
- CONFLICT OVER WATER

CLIMATE RISK INDEX - RANKING 2000-2019: NO DATA AVAILABLE



INTERESTING FACTS ABOUT CLIMATE CHANGE AND INITIATIVES

AVERAGE ANNUAL TEMPERATURE IN 1920: 26.49°C

AVERAGE ANNUAL TEMPERATURE IN 2020: 27.16 °C



TREND OF RAINFALL: THE EL NIÑO SOUTHERN OSCILLATION (ENSO) INFLUENCES SOMALIA'S CLIMATE VARIABILITY IN SEVERAL WAYS, BRINGING MORE RAINFALL AND FLOODING DURING EL NIÑO AND DROUGHTS IN LA NIÑA YEARS.

PHYSICAL MAP



SYRIA

CAPITAL: DAMASCUS

TOT. AREA (KM²): 185,180 KM²

POPULATION: 18,141,316 MILLION

AVERAGE AGE: 25.6

POPULATION DENSITY: 118.3/KM²

LIFE EXPECTANCY: 71

NATURAL RESOURCES

OIL AND GAS: NATURAL GAS RESERVES

WATER RESOURCES: 16 RIVERS

TREE COVER AREA: 0,57 % OF LAND

TREE COVER LOSS: 22% DECREASE
IN TREE COVER SINCE 2000

TREE COVER IN SYRIA



As of 2000, 0.57% of Syria was natural forest cover.

● Natural Forest

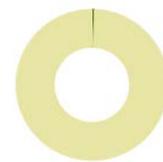
106kha

● Plantations

8ha

● Non-Forest

18.6Mha



NATURAL HAZARDS AND KEY VULNERABILITIES

- FLOOD
- WILDFIRE
- DROUGHT
- HEAVY STORM
- LANDSLIDE
- HEAT WAVES
- COLD WAVES
- DESTRUCTION OF WATER FACILITIES DUE TO THE CONFLICT

CLIMATE RISK INDEX - RANKING 2000-2019: NO DATA AVAILABLE

INTERESTING FACTS ABOUT CLIMATE CHANGE AND INITIATIVES

AVERAGE ANNUAL TEMPERATURE IN 1920: 17.92 °C

AVERAGE ANNUAL TEMPERATURE IN 2020: 19.16 °C



TREND OF RAINFALL: IN CERTAIN AREAS RAINFALLS ARE DECREASING WHILE IN OTHERS THEY ARE GETTING MORE INTENSE.

PHYSICAL MAP





TRANSNATIONAL

YOUTH

FORUM

2022

*ADVANCING CHILDREN'S RIGHTS
FOR INCLUSIVE ACTION ON CLIMATE CHANGE*

CYPRUS



THE ENGLISH SCHOOL
A SECOND CENTURY OF EXCELLENCE

REDUCING PAPER WASTE BY DIGITALISING SCHOOLS

SUPERVISOR: LUZDARY STAVROU

**PARTICIPANTS: LARA WILKS, ERIN TIMUR, ELENI PROTOPAPA,
MARKOS TELEVANTOS, GEORGIOS NICOLAOU**



Erasmus+

Contents

1. A Brief Introduction

2. Our Methodology

3. Results

3.1. A brief summary of the results seen from our student survey:

3.2. A brief summary of the results seen from our teacher survey:

4. Future goals

5. Annex

1. A Brief Introduction

When faced with the problem of tackling climate change and global warming, we decided to choose, from the unfortunately wide array of problems, one that we could not only research but act upon in our own community and try to alleviate. This decision, ultimately, led to paper waste - a growing problem and something we had noticed was prominent at our school.

The third largest pollutant of our planet, paper waste contributes to global warming through its roles in landfills, deforestation and its manufacture which releases copious amounts of greenhouse gasses. Our suggested solution is digitalisation, the gradual transition for schools that are dependent on paper to go digital and significantly reduce paper waste.

2. Our Methodology

Our team decided to pursue the following forms of first-hand research:

- Interviews with Head of Departments at the English School
- Surveys sent out, one for teachers and one for students of the English School

The main objective was to see what the real scenario regards to paper waste is in our school and learn more about teachers and students' views and attitudes are towards digitalisation.

We also browsed the internet for second-hand research like:

- How paper waste impacts climate change
- Effective methods to reduce paper waste and go digital, specifically in schools
- Applications (such as Microsoft programs) which teachers can implement in their lessons

The information found was compiled and used in our outcome, the presentation for teachers.

3. Results

3.1. A brief summary of the results seen from our student survey

55% of students own a tablet while 75% of those who do not, have considered purchasing one for educational purposes.

67% of students bring a tablet to school while most use their laptops for schoolwork at home.

Students enjoy it when their teachers use digital tools such as a tablets, projectors and online learning tools (Kahoot, Blooket etc.).

88% of students have considered the effects of digitalisation, and many suggested ways we can digitalise as a school, such as providing online PDFs of booklets, partnering with tech companies to provide the school with tablets, files with digital worksheets, using more presentations etc.

Students have also listed many advantages of using online devices for school work while also expressing some disadvantages, which has helped us create a well-rounded proposal.

In general, students seem very open to turning digital while many do not have the opportunities to do so yet. 49% of students said they prefer printed handouts and textbooks.

3.2. A brief summary of the results seen from our teacher survey

100% of teachers use digital tools during their lessons, however still rely on paper use.

73% of teachers say that the lack of school facilities is hindering them from going digital.

27% state that they frequently have to rely on additional handouts during their teaching, of which 60% believe they are necessary whereas 27% have shown they may be willing to switch to digital copies.

We are proud to say 100% of teachers have said they are willing to switch to digital means of teaching if they are given advice and aid from us.

Teachers have commented that students should also go digital to be able to make a significant change.

All results from the first and second hand research were condensed. With these, our team created our outcome: an informative and suggestive presentation for teachers in all schools.

The presentation includes an informative introduction to our topic (what the problem is), our suggested digital tools specifically for teachers, and a case study, the English School, to

School, to give real life perspective.

4. Future goals

Our aim in the coming months is to present our presentation to the teachers of the English School, in a workshop-style meeting. We also aim to send the presentation to other schools for teachers to view in their own time, in aims of creating a more national impact. After teachers have viewed the presentation, we want to ask them for feedback through a survey on how we impacted them and to what extent they will put our suggestions into practice.

While starting our journey, we knew that the real impact we want to create is long-term advancement which we could not have achieved in only a couple of months. By raising awareness, we hope to:

- Minimise the use of paper in forms of handouts and worksheets as much as possible
- Encourage schools to provide all teachers with tablets
- Encourage schools to provide school-tablets for students which can replace textbooks and handouts
- Achieve a higher national awareness for the huge impacts paper waste can have on our environment

We recommend all students and staff at schools to keep persisting for more digital school systems which do not waste the valuable resources that humanity currently exploits unsustainably.

5. Annex

- PowerPoint Presentation prepared by the young participants

Reducing Paper By Digitalising Schools



Presentation Outline

1. THE PROBLEM: PAPER WASTE IN SCHOOLS

- WHAT IS PAPER WASTE?
- HOW IS IT RELATED TO CLIMATE CHANGE?

2. THE SOLUTION: DIGITALISATION

- RECOMMENDED DIGITAL DEVICES FOR TEACHERS
- RECOMMENDED ONLINE APPLICATIONS FOR TEACHERS TO USE THAT REPLACE PAPER

3. OUR CASE STUDY: THE ENGLISH SCHOOL



What is the problem?

When faced with the problem of tackling climate change and global warming, we decided to choose, from the unfortunately wide array of problems, one that we could not only research but act upon in our own community and try to alleviate.



This decision, ultimately, led to **paper waste** – a growing problem and something we had noticed was prominent at our school

What is Paper Waste?

The third largest pollutant of our planet, paper waste is defined as any form of paper that is thrown away because it has been used or is no longer needed, which had the potential of being recycled.



The impact of paper waste



- Paper makes up 26% of all landfills
- from 2001-2019, 386 million hectares of forest were cut down for paper production
- One A4 page requires 10 litres of water to manufacture and both paper production and waste can therefore be said to contribute to water waste
- When rotting, paper emits methane gas which contributes heavily to greenhouse gases, with it being 25 times more toxic than CO₂

How paper waste contributes to global warming:

- **Landfills:** where the decomposition of paper produces methane gas, a greenhouse gas with 21% more 'trapping power' than carbon dioxide
- **Manufacture:** although the paper industry only accounts for approx. 1% of carbon emissions, the manufacture of recycled paper almost halves the energy used in the process
- **Deforestation:** paper waste and a lack of recycling leads to an increase in the amount of paper produced, increasing deforestation rates, with 42% of global wood harvest going towards paper production



Our Solution: Digitalisation

Having identified the problem, we now needed to act on it

We believe that digitalisation, the gradual transition of schools from being dependent on paper to going digital is a viable solution.

Digitalising will lead to a reduction in the use of paper, and therefore paper waste, eliminating the printing of things such as:

- worksheets
- past papers
- extra practice handouts and articles
- handouts that students do not need hard copies of (e.g model answers).



Our Solution: Digitalisation



Student response

It is also worth noting that the subject of paper waste is one which our generation is very aware of and actively trying to combat. This was apparent in the survey we sent out to students at our school, where 87.5% reported having given thought to the issue.

There is also interest in combatting the problem, with students providing solutions and suggestions for our school through the form; e.g the school subsidising a move to digitalisation, improving wifi connections,

Choosing a device as a teacher



Role of the Brand

What to choose and how to make the decision

1

When trying to find the perfect tablet or 2-in-1 device you first have to look into what **different brands** are offering. A good way to make a quick decision is thinking about what other electronics you own. Especially when it comes to Apple if you already have an iPhone or Mac it would be a good idea to consider an iPad.

2

Regardless of the device's brand it is recommended that you use the most **universally compatible applications** such as Microsoft Office or Google which work equally great regardless of the device you choose.

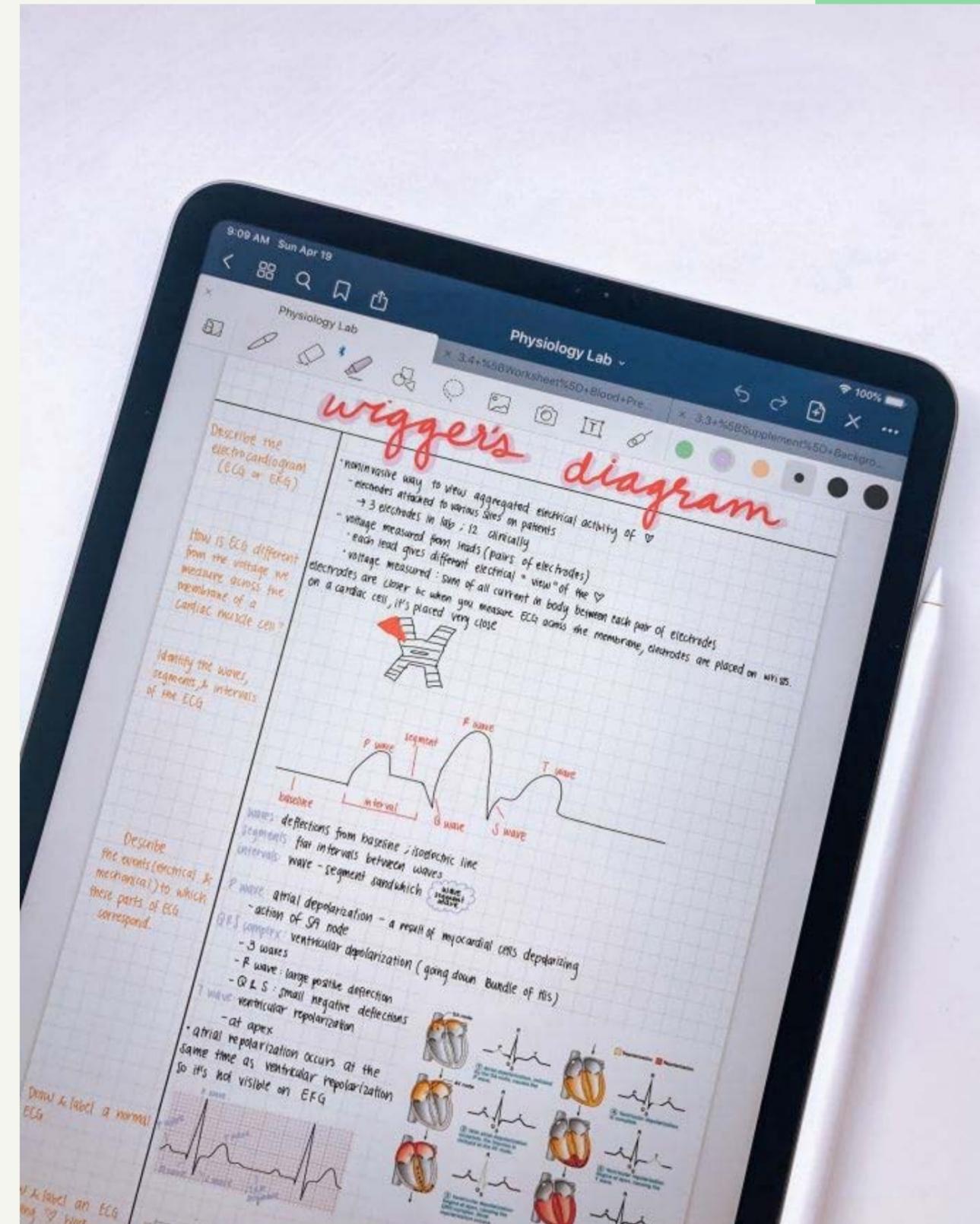
3

Since the transition to electronic means of teaching is meant to provide more options for learning while also reducing paper use, a tablet that also has **stylus support** would be a great way to keep the familiar element of paper-like writing while opening up to the many new things technology has to offer.

Tablets

In general tablets are just a screen where you can type and write with a specialised stylus

- If you prefer a more traditional approach some accessories give you the choice of a physical keyboard on your tablet in the form of a protective case which also makes it compact and portable.
- Similar to a tablet with a keyboard case, is a 2 in 1 laptop like Microsoft spectre 360, Lenovo yoga, Dell XPS 13 etc. (generally more expensive they have the advantages of both a tablet and a laptop)



Teaching using a tablet

There are, of course, different requirements for different courses

For example

-> A device with a stylus would be perfect for subjects that may require students to draw charts or plot graphs like mathematics, biology and design & technology

-> For Art lessons apps like Flow, Astropad and Adobe Sketch or Adobe Illustrator are a great way to to explore digital art

Tablets are also widely useful in projects that involve presentations, research, movie or song production, conducting surveys, interactive IT games and creative designs.



The Most Common Brands

Apple

Price range for iPads: \$329 – \$1100, Apple pencil \$100 – \$130, Keyboard case \$159 – \$300

Recommended:

- iPad mini – \$500 (no keyboard case support)
- iPad Air – \$600



Samsung

Price range for Tablets : \$230 – \$1000, Stylus included with supported devices, Keyboard case \$160 – \$200

Recommended:

- Galaxy Tab S6 lite – \$350
- Galaxy Tab S7 FE – \$530
- Galaxy Tab S7 – \$650 (can be found at lower prices)



Microsoft

Price range for Tablets / 2in1 : \$400 – \$900, Surface slim pen \$120, Keyboard case \$130 – \$160

Recommended:

- Surface Go 3 – \$400
- Surface Pro X – \$830



Our Solution: Digitalisation

Interactive Learning with Student Applications

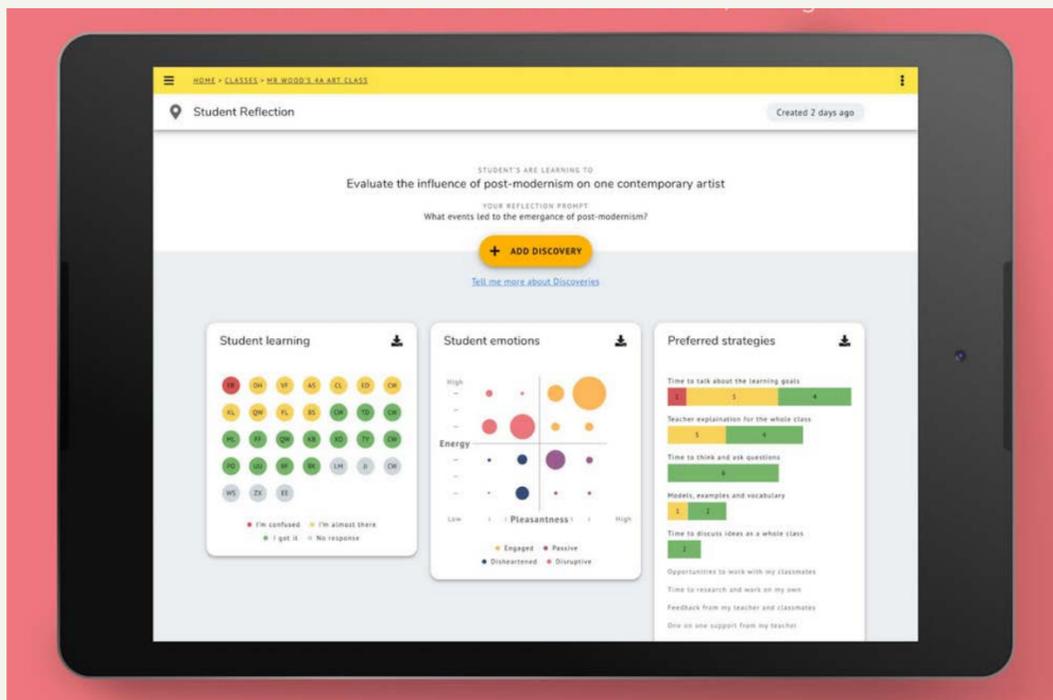
- Free
- Easy to use
- Accessible
- Available for download on a variety of devices
- Trusted & used by schools and prestigious universities

Verso Learning

A platform where students can provide feedback regarding how they feel they can be supported further, whether they enjoy the methods utilised when teaching, etc.

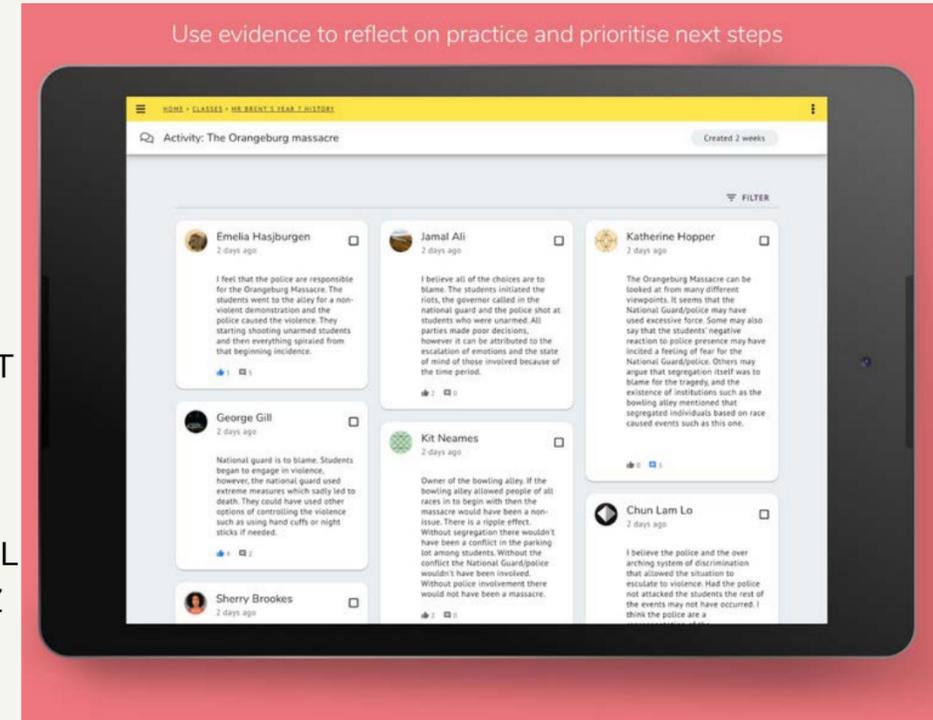
They can share with their teacher:

- Insights into what they are learning
- Their progress and next steps
- Teaching strategies that help them the most
- How they are feeling about their learning



ASSISTANCE FROM VERSO LEARNING:
1. BLOG & WEBSITE
2. YOUTUBE CHANNEL

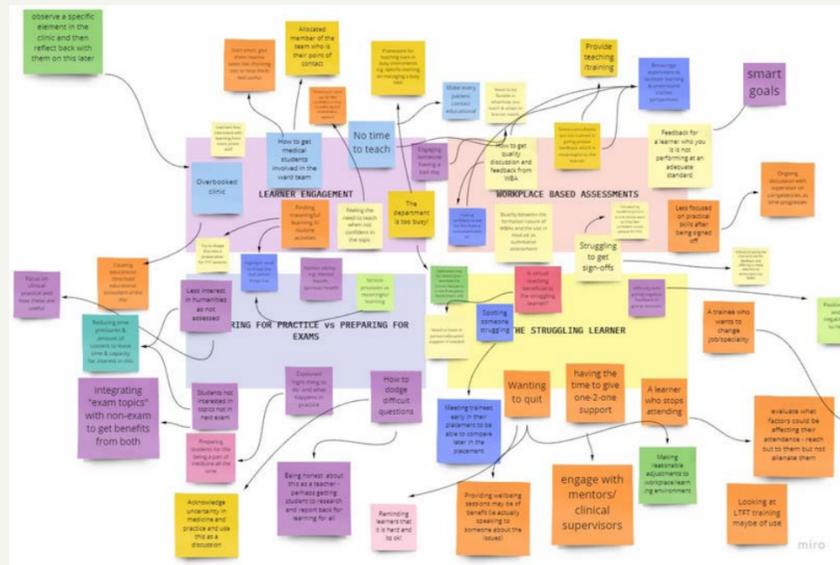
VIDEOS:
CREATING QUESTIONS AND UPLOADING CONTENT INTO VERSO ACTIVITIES:
[HTTPS://WWW.YOUTUBE.COM/WATCH?V=3YBJRWUOCM8&LIST=PLJAKGYXATBJ85TWZKLC8Z_FSY2I1DZLSS&INDEX=9](https://www.youtube.com/watch?v=3YBJRWUOCM8&list=PLJAKGYXATBJ85TWZKLC8Z_FSY2I1DZLSS&index=9)



Benefits:

- Great for classroom management and formative assessment
- Better discourse, participation, and accountability
- Rating and flagging content builds engagement and helps teachers track participation
- Seamless, simple user experience

Miro – Visual Collaboration Platform

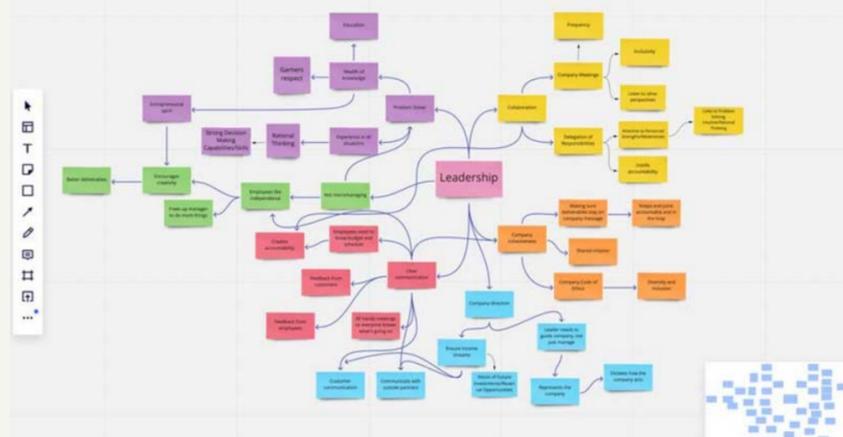
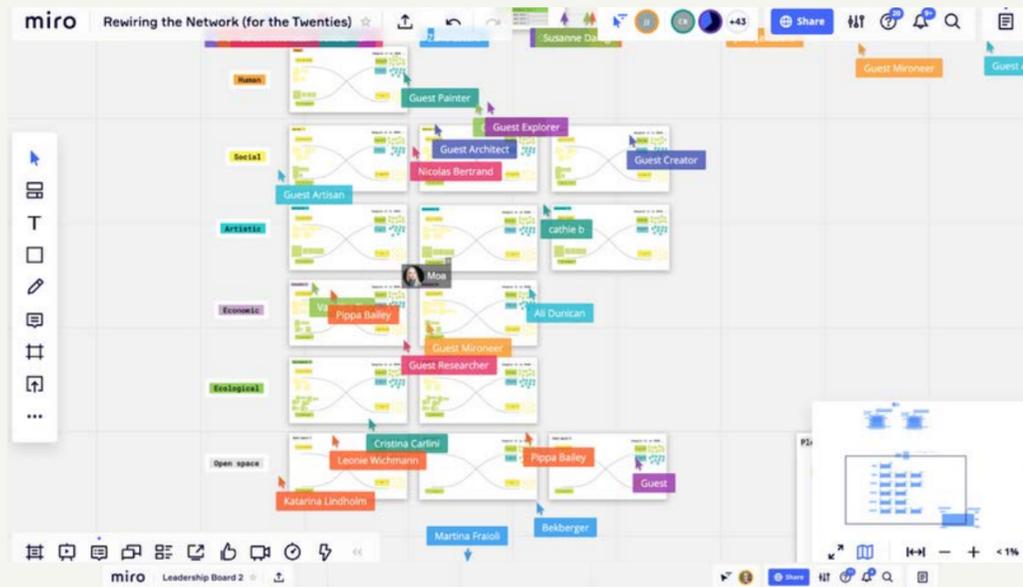


Collaborative website that enables students and teachers to organise their work by providing a myriad of templates to choose from as well as personalisation. Students can brainstorm in real time by creating mind maps, flowcharts, move sticky notes, etc.

Benefits:

- Endless whiteboards
- Collects all diagrams in the same place
- Can support 200 users editing the board simultaneously, in addition to the hundreds of users that can view the board at the same time
- Unique features such as the raise hand one allows you to check on students work and students can follow your screen with the “follow me” feature

TRANSNATIONAL
YOUTH FORUM



Assistance from Miro:

- Blog, Website & Guides
- Webinars & Live-Sessions
- Board Templates
- Youtube Channel

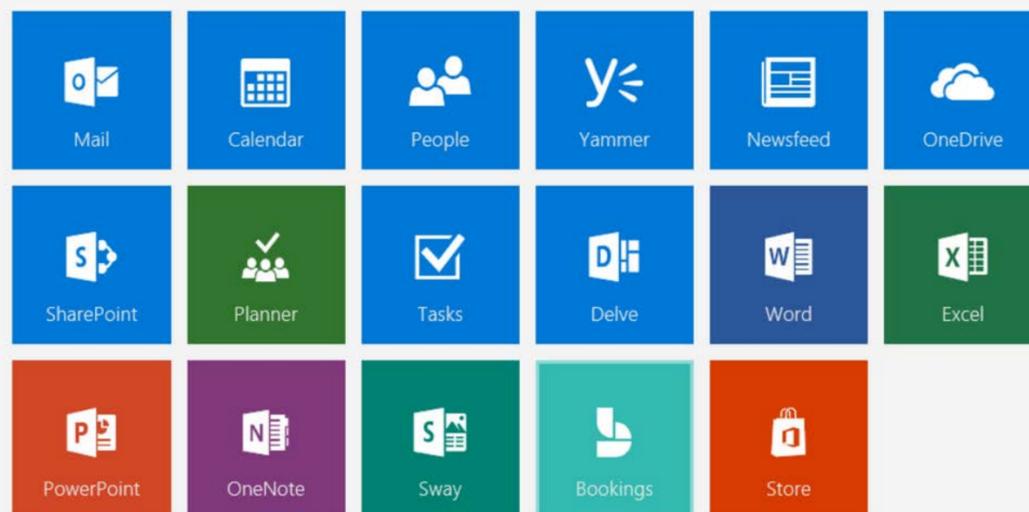
Videos:

Board Basics: Making Your First Miro Board
<https://www.youtube.com/watch?v=7L1-ODOGHDY>
<https://www.youtube.com/watch?v=Zc2c6HquANE>

Microsoft Office Features



Use the online apps



Unique Features

- Real-time co-authoring (Word, Excel, PowerPoint)
- Resume reading
- Working offline and uploading the edits later
- Office Planner helps with organising team or class workflow
- Using your mouse as a laser pointer for better PowerPoint presentations
- Record a slideshow with audio
- Collaboration and feedback through comments



RESOURCES:
 15 COOL FEATURES YOU SHOULD BE USING IN OFFICE 365
[HTTPS://WWW.SHERWEB.COM/BLOG/OFFICE-365/15-COOL-FEATURES-YOU-SHOULD-BE-USING-IN-OFFICE-365/](https://www.sherweb.com/blog/office-365/15-cool-features-you-should-be-using-in-office-365/)
 WHAT'S NEW IN OFFICE 2021
[HTTPS://SUPPORT.MICROSOFT.COM/EN-US/OFFICE/WHAT-S-NEW-IN-OFFICE-2021-43848C29-665D-4B1B-BC12-ACD2BFB3910A](https://support.microsoft.com/en-us/office/what-s-new-in-office-2021-43848c29-665d-4b1b-bc12-acd2bfb3910a)

VIDEOS:
 OFFICE 2021: ALL THE NEW FEATURES
[HTTPS://WWW.YOUTUBE.COM/WATCH?V=IGACKLA1GIA](https://www.youtube.com/watch?v=IGACKLA1GIA)

Kahoots and Quizlets

With a positive effect on learning performance and improvement of classroom dynamics interactive learning can:

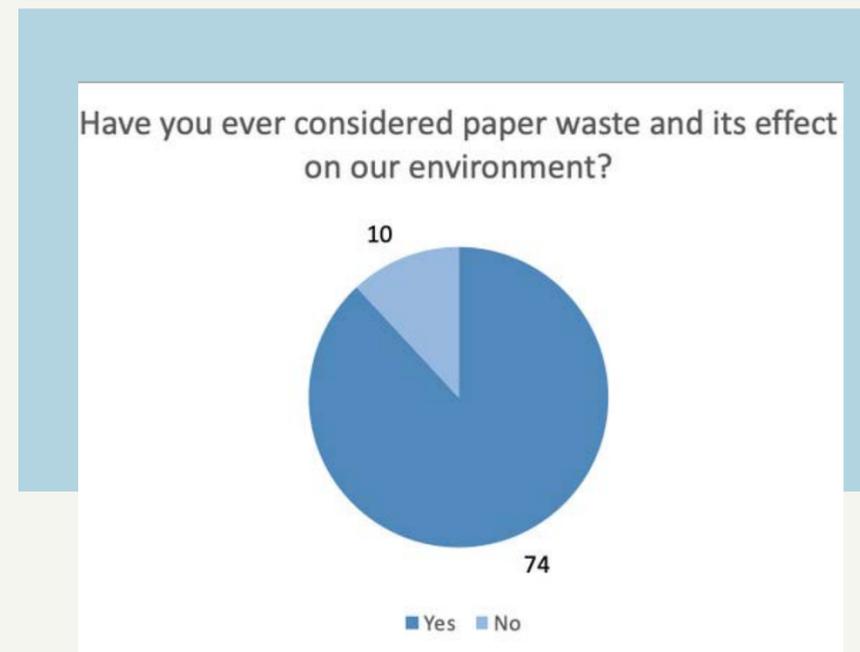
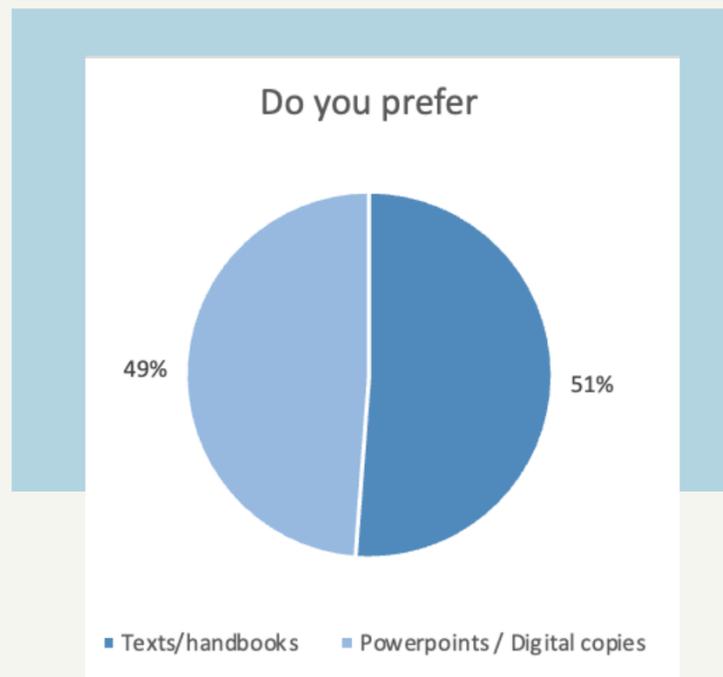
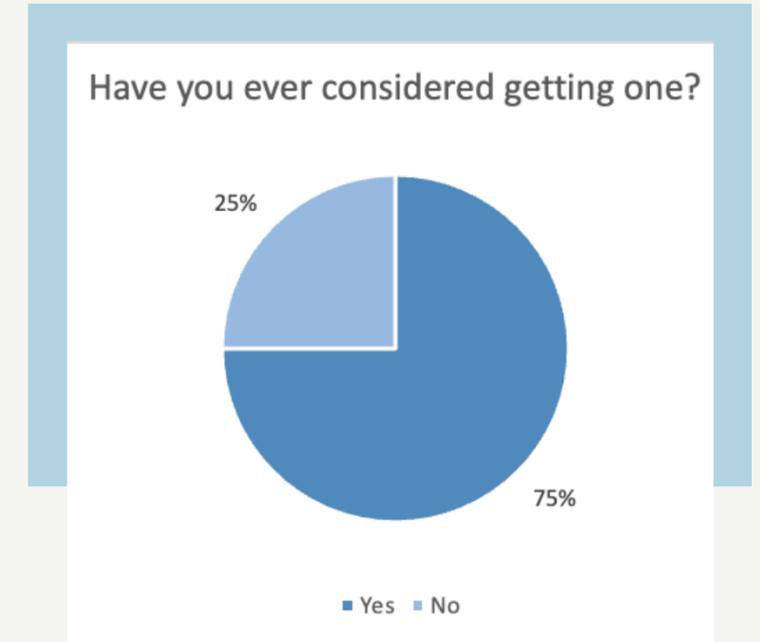
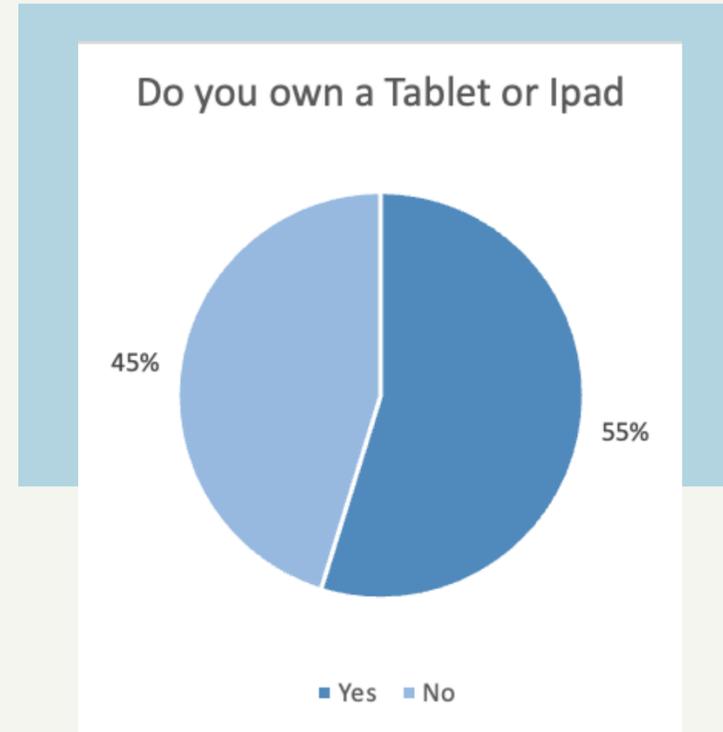
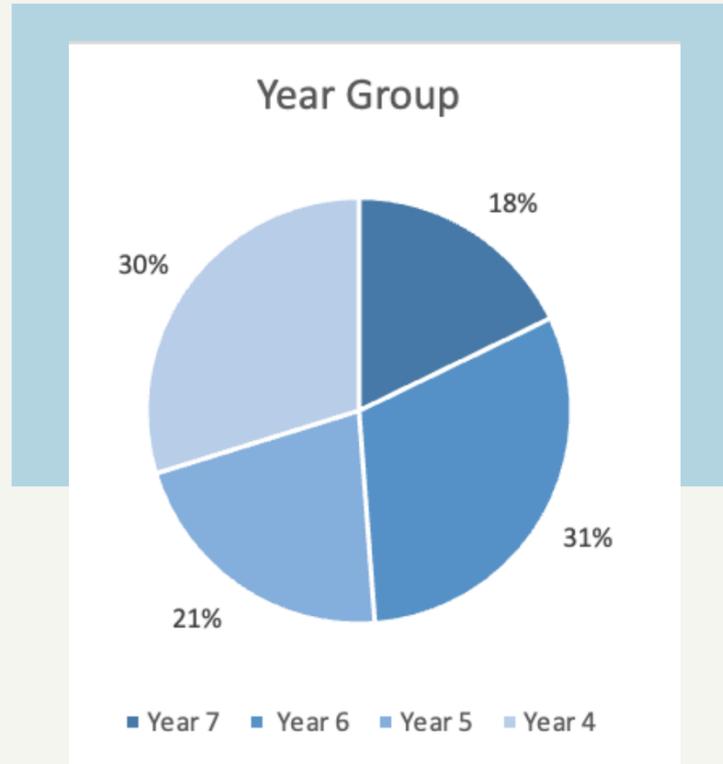
- Capture the interest and attention of your students
- Allow for bonding with your students
- Be a fun way to learn material involving memorisation
- It is also proven to reduce anxiety & stress



Our Case Study: The English School



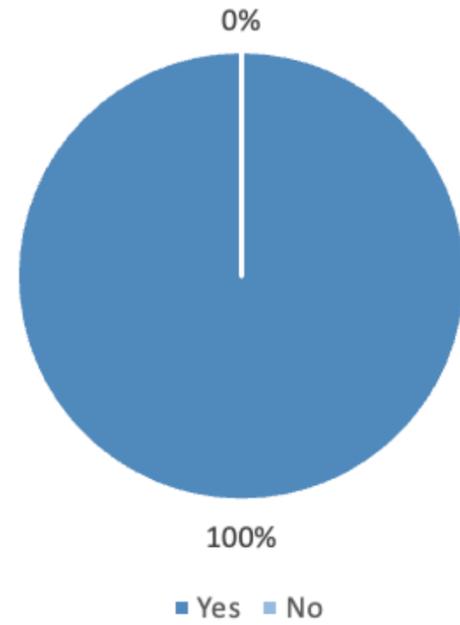
Collecting Data: the student survey



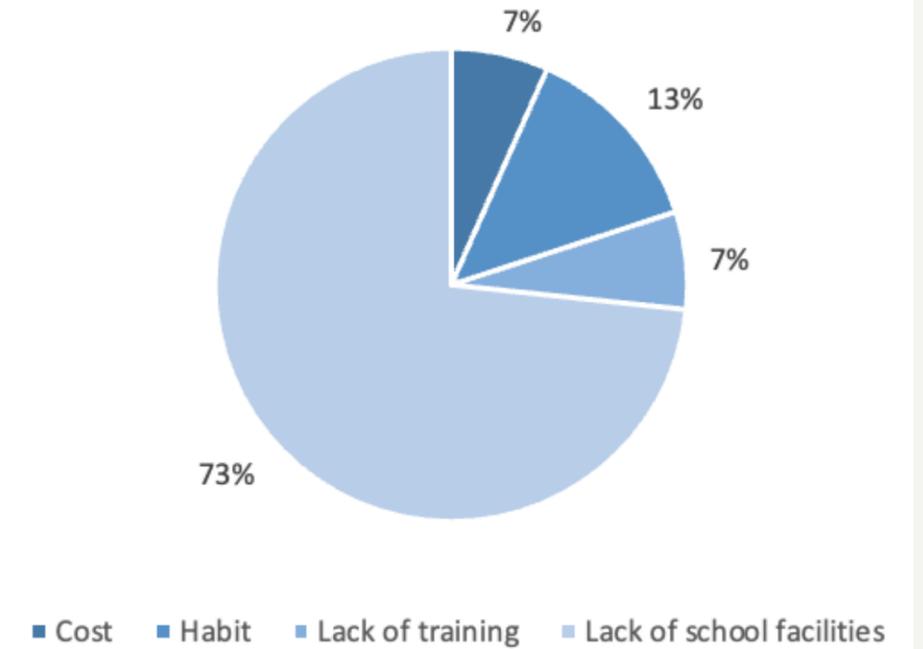
The answers we got from a survey sent out to the students at our school in an attempt to gather direct, specific information

Collecting Data: the teacher survey

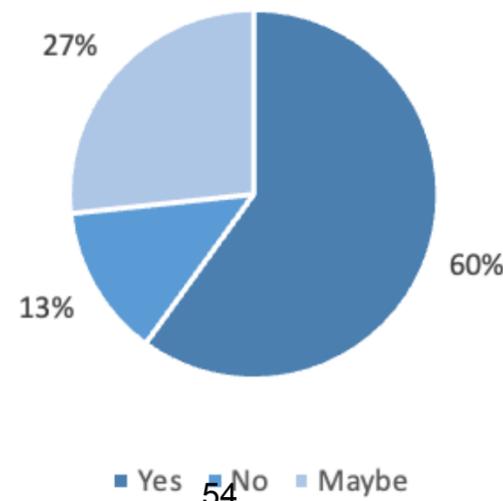
Do you use any digital tools during your lessons?



what is hindering you from 'going digital'?



Do you believe that the handouts you give are extremely necessary or could they be replaced by digital copies or other means of teaching?



Some promising answers from our teaching staff, collected via a survey sent out to them

Paper Waste at our School

**In 2020-2021, the school printed 2 million pages on average -
> this cost approx. EUR 32,000**

Our first-hand research shows the following ideas on reducing paper waste in school:

TRANSNATIONAL
YOUTH FORUM

Providing (preferably upper school) students with tablets which are school-monitored and owned + partnering with tech companies for more affordable deals

increasing the efficiency of paper recycling by placing more prominent recycling bins around school

online quizzes and activities (through previously listed applications)

creating digital PDF booklets to be sent to tablet users

assessment feedback forms could be made on teams instead of an extra printed page

teachers simply putting in some thought regarding the need of a handout before printing it – Can these notes be summarised on the text book? Can a digital version be used?

the placing of QR codes in booklets to link articles/extra handouts or even past papers for easy digital access

The Pros of Digitalising Schools



- A common goal towards environmental sustainability is achieved – higher sense of community
- Students would be more organised as they would have all resources on one device – less chance of forgetting handouts etc.
- Students would be able to access their past work more easily and thus improve revision techniques
- No time wasted in printing paper – simply send books/handouts
- Huge savings – it doesn't cost anything to send digital documents in contrast to printing paper
- Reduces weight of bags for both students and teachers
- Easier access to online learning tools, visual animations and research

The Cons of Digitalising Schools and our suggestions



1. Logistics/cost of tablets

→ Partnerships with firms can be managed + in the long-run, the cost would fall

2. Digital learning may be exploited by less mature students – distracting

→ Would be tried on upper school students first + school can put a block on tablets to avoid misuse

3. Some teachers would struggle with technology and issues could arise

→ Training + aid will be offered

4. Possibility of unstable internet connection

→ Most in-class applications for teaching don't require internet + the school can invest in better wifi for the long-run benefit

5. Copyrights and other legal issues of digital text books

→ Permission will be required, and if not granted then physical copies will be kept

We hope our presentation has been
informative enough to help you
reduce paper waste!

Lara Wilks : larawilks@gmail.com

Eleni Protopapa : eleni.29.pr@gmail.com

Erin Timur: erin.timur24@gmail.com

Markos Televantos: markos.televantos@gmail.com

George Nicolaou: gnicolaoueu@gmail.com



**TRANSNATIONAL
YOUTH
2022 FORUM**

*ADVANCING CHILDREN'S RIGHTS
FOR INCLUSIVE ACTION ON CLIMATE CHANGE*

ITALY



**UNIVERSITÀ
di VERONA**

CLIMATE CHANGE, GLOBAL CONCERNS AND THE IMPACT ON THE RIGHTS OF FUTURE GENERATIONS - POLICY BRIEF

SUPERVISORS: PROF. QUADRANTI, PROF. NICOLINI
PARTICIPANTS: GIORGIA CORBELLARI, MARTA DAL FARRA,
ALICE DELL'ANNA, DOMENICO FRASCATI, MARIA ILLETTERRATI,
ILENIA POGGI



Erasmus+

Contents

1. Introduction

2. Legal contextualization

2.1 Climate change and environmental protection

2.1.1 International level

2.1.2 European level

2.1.3 Italian level

2.2. Climate change and the rights of future generations

3. Case studies

3.1 The issues analyzed

3.1.1 The Waste Crisis in Campania

3.1.2 Air Pollution and Low Air Quality

3.1.3 Dramatic Rise in Temperatures

3.1.4 Risk of Floods and Cloudburst

3.1.5 Soil degradation and desertification

3.1.6 Environmental migrants

3.2 Possible solutions

3.2.1 Nature Based Solutions

3.2.2 The Great Green Wall

3.2.3 Environmental education

4. Recommendations

5. Bibliography

1. Introduction

Globally, the year 2020 was the third warmest on record, following a trend of increasing global average temperatures since 2015. Monsoon seasons have also expanded, and annual precipitation totals have increased in some parts of the world. Global sea levels continue to rise, as do ocean temperatures, which are fueling stronger tropical cyclones. Droughts are becoming longer and more devastating. In addition, the Covid-19 pandemic has added another layer of complexity to these crises, with devastating impacts on the lives and livelihoods of displaced people.

Climate change is a concrete, real and actual risk for our planet and for the enjoyment of fundamental rights for all of us. Climate change effects have a major impact on a wide range of human rights: the rights to life, health, food, water and sanitation, a healthy environment (where it exists), an adequate standard of living, housing, property, development and culture. "Climate change impacts, directly and indirectly, an array of internationally guaranteed human rights. Consequently, numbers of citizens are taking their governments to Court for their lack of action to combat climate change and to make national states accountable for the human rights obligations in the context of climate change. It has to be said that States have a wide margin of appreciation in determining which measures to apply to protect human rights, but it should be possible for the Court to ask whether the measures adopted are reasonable and adequate to prevent harm from climate change."¹

This policy brief aims to analyse some relevant issues (waste crisis in Campania, air pollution and low air quality, rise in temperatures, risk of floods and cloudbursts, soil degradation and desertification, environmental migrants) and propose some possible solutions, successful strategies and practices, such as the Nature-Based Solutions, the Great Green Wall and the environmental education.

2. Legal contextualization

2.1 Climate change and environmental protection

The following paragraphs will introduce the main tools for the protection of human rights and the environment.

Environmental law is a branch of law that deals with the protection and safeguard of the environment, every country has its own body of law but in our case it's useful to focus on three important levels: national, European, and international.

2.1.1 International level

In the context of the fight against climate change two major conferences marked the progress towards the understanding of the importance of the protection of the environment: Rio Conference and Stockholm Conference.

The Stockholm Conference represented the first step towards the consolidation of international environmental law and it was convened by ONU in 1972. It introduced the Declaration on the Human Environment and some key principles such as the environment as a legally protected right, environmental protection outside statehood like high seas, the atmosphere and the Antarctica along with international cooperation to defend the environment. The assumption behind this Declaration is the awareness of the many environmental issues and their gradual deterioration because of the problems caused by oil in the seventies, which highlighted the ties between the ecosystem and economic growth, as well as the damage caused by an unbalanced industrial development.²

The Rio Conference was held in 1992 and it had a pivotal role for the promotion of sustainable development models on an international level. The priority objective of the 183 countries was to establish a new and equitable global partnership through the creation of new levels of cooperation between states, key sectors of society and peoples. During the Conference important agreements were reached on the future of the planet, such as the Rio Declaration (Rio Declaration on Environment and

Development) which emphasized the link between environmental protection and development, the need to eradicate poverty and consider the needs of developing countries, the urgency of finding alternatives to unsustainable production and consumption patterns, increasing indigenous capacities to address environmental issues.

Finally, it is useful to mention the Kyoto Protocol and the Paris Agreement. The former is the first global, legally binding agreement. It identified a series of priority actions for the solution of the problems of global climate change, requiring developed countries and those with economies in transition in Eastern Europe to start a process of global collaboration on a consensual basis, based on the centrality of global climate problems in world socio-economic development.² The latter was adopted at the Paris climate conference (COP21) in December 2015. Governments agreed a long-term goal of keeping the increase in global average temperature to well below 2°C above pre-industrial levels and to aim to limit the increase to 1.5°C, since this would significantly reduce risks and the impacts of climate change; they also agreed to meet every 5 years to assess the collective progress towards the long-term goals and inform Parties in updating and enhancing their nationally determined contributions, report to each other and the public on how they are implementing climate action, and finally track progress towards their commitments under the Agreement through a robust transparency and accountability system.³

The Kyoto protocol was adopted in 1997 during the third COP (Conference of Parties). This year's COP was the twenty-sixth and it mainly focused on reiterating and redesigning some of the previously agreed general commitments: the latest Conference managed to keep the goal of containing global temperatures below 1.5°C alive, compared to pre-industrial levels; it also encouraged participants to renovate their decarbonization efforts and to double funding in support of developing countries' adaptation to climate change. However, there were downsides like India's last minute decision to substitute the expression "phase out" with "phase-down", so carbon will be reduced instead of completely abandoned.⁴ It can be said that the COP could have been more successful if, as suggested by the commissioner for Human Rights Michelle Bachelet, "the people who are most at risk from the adverse effects of climate change" had been "the first recipients" of the resources that the States undertook to adopt because "this is a human rights obligation and a matter of survival, without a healthy planet to live on, there will be no human rights".

2.1.2 European level

The European Union (EU) law on the protection of the environment, originally not contemplated in the founding Treaties, was introduced first by the jurisprudence of the Court of Justice of the EU and then, formally, with the Single European Act of 1986, which entered into force in 1987 and defined the principles and purposes of EU action in the environmental field.

The protection of the environment in European Union law is now based on some principles of a general nature that give coherence and systematicity to the same protection; some of these principles are encoded in rules.

First, Article 6 of the TEC, which provides for the integration of environmental requirements into the definition and implementation of other Community policies and actions, is identified with the principle of integrating environmental protection policies into other Union policies. Article 3.3 TEU contains an explicit reference to sustainable development, which is seen as a pervasive concept of the overall action of the Union, as the objective of satisfying the needs of the current generation without compromising those of future generations, as a guideline to evaluate each policy.⁵ Title XX of the TFEU is also dedicated to the environment. Article 191 lays down the following objectives: protection and improvement of the environment, protection of human health, promotion of international measures in the environmental field, especially against climate change. The same rule also specifies that EU environmental policy is based on the principle of prevention and precaution, the principle of correction, possibly at the source, of damage caused to the environment and the "polluter pays" principle, according to which it is the polluter who must bear the respective cost, rather than falling generically on the communities.⁶ Moreover, Article 193 states that the Member States of the Union are authorized to maintain

environmental protection measures of a more stringent nature than those adopted at European level, but since environmental issues are a matter assigned to shared competences, it is necessary that Members comply with the obligation to ensure unity in the representation of the Union during the negotiations for the conclusion of an agreement in this matter. This provision can be linked to Article 37 of the Charter of Fundamental Rights which requires the members of the E.U. (European Union) to integrate their policies to protect and improve the environment by ensuring "sustainable development". The article does not establish an individual right but, precisely through its inclusion in the Charter, the principle assumes cultural and political importance, becoming an instrument for interpreting other norms and values deriving from the *Acquis Communautaire*.⁷

Another important example of lawmaking concerning the environment can be seen for example in the EU Regulation no. 2021/1119 which establishes the framework for achieving climate neutrality and sets the objective of irreversibility and gradually reducing greenhouse gas emissions by 55% by 2030, compared to 1990. The European Union aims for climate neutrality by 2050, to become the first climate-neutral continent and to fully implement the United Nations Framework Convention on Climate Change. In this direction, Article 4 identifies the Union's intermediate climate targets and a system for assessing progress every five years, starting on 30 September 2023. There will also be an evaluation of national measures and public participation in order to facilitate a gradual transition.⁸

Finally, in 2021, an important milestone was reached with the Aarhus Convention, that marks an important step for the progress of environmental democracy, as it represents a rapid response mechanism for the protection of environmental defenders (one of the signatories was precisely the EU). This is the first mechanism that specifically safeguards environmental defenders: under Article 3(8), the Parties shall ensure that persons exercising their rights in accordance with the provisions of the Convention are not penalized, prosecuted, or harassed in any way for their involvement. The Convention's rapid response mechanism is based on a binding legal framework and does not require that available national remedies have been exhausted first.⁹

2.1.3 Italian level

Italian Environmental Law is a branch of Law that deals with the protection and safeguarding of the environment. It is developed on three levels: at supranational level, at national level and at regional level. The so-called Consolidated Environmental Act (or TUA), or legislative decree no. 152/2006, has been in force since 2006, and it has been the main reference point of the entire Italian discipline of the sector; it has undergone dozens of changes to the present day, also, above all, driven by the obligations to transpose the European Directives in the sector. The typical structure of an environmental rule has several characteristics: almost all the obligations envisaged by the same refer mainly to the authorizations necessary to undertake a given activity with potential negative impacts on the environment based on the principle of prevention (the non-fulfillment of an authorization obligation almost always originates from criminal sanctions): this does not presuppose a substantial pollution but only a preventive *ex ante* control.

Anthropogenic climate change is now known and recognized by Italian jurisprudence, as Italian judges are aware of the central role of the State in countering the phenomenon and the seriousness of its effects in the enjoyment of human rights. For example, the Court of Cassation in order 5022/2021 formalized the legal principle according to which the "unavoidable constitutive nucleus of personal dignity" must be guaranteed by the State in cases of serious risk deriving from climate change, given that "all States are bound to ensure with individuals living conditions that make it possible to fully explain the right to life, in its broadest declination, even regardless of the existence of a current danger to survival".

Italy has signed all the international agreements and instruments related to the fight against climate change, the State has bound itself to fulfill obligations and to do so in good faith. The climate obligations of the state are mainly contained in the three sources: UNFCCC (whose legal interest is climate stability, so it is the good of life that the Convention recognizes and therefore protects), Paris Agreement (aimed

at limiting the temperature increase to +1.5°C compared to pre-industrial levels by 2030), EU Regulations n. 2018/842, 2018/1999, 2020/852 and 2020/241 (these regulations recall the Agreement). Regulation 2018/1999 establishes the Governance system of the Energy Union which aims to plan and track the policies and measures implemented by the Member States to achieve the objectives of reducing emissions, increasing energy efficiency. The governance mechanism is based on the Integrated National Energy and Climate Plans (PNIEC); on 31 December 2019 Italy sent the Commission the final text of the Italian PNIEC, whose objective is to implement a new energy policy that ensures full environmental, social and economic sustainability and accompanies this transition.

The main provisions approved during this legislature on the fight against climate change were climate decree (Legislative Decree 111/2019) national strategic program for the fight against climate change and the improvement of air quality, in coordination with the PNIEC (Integrated National Plan for Energy and Climate) and with the basin planning for hydrogeological instability. The 2020 Budget Law (Law 160/2019) provides for the establishment of a Fund aimed at relaunching the investments of the Central Administrations of the State and the development of the country, with a total allocation of about 20.8 billion euros for the years from 2020 to 2034. The resources are intended for investments aimed at the circular economy, the decarbonization of the economy, measures aimed at implementing a public investment plan for the development of an Italian Green New Deal, and at establishing a Fund. The 2021 Budget Law (Law 178/2020) determines the allocation of shared proceeds from the auctions of greenhouse gas emission allowances for which 10 million euros remain destined to decarbonization and energy efficiency interventions in the industrial sector, while the remaining part of the resources is allocated to financial measures in favor of sectors or subsectors considered exposed to a high risk of carbon leakage. Sanctioning regulations have also been issued for the violation of European provisions on monitoring, reporting and verification of carbon dioxide emissions generated by maritime transport (Legislative Decree 83/2019) and for the violation of the provisions of the European regulation on fluorinated greenhouse gasses (Legislative Decree 163/2019).¹⁰

Italy has explicitly declared itself committed to the humanitarian perspective of protecting its residents from the consequences of climate problems by signing of the Geneva Pledge for Human Rights in Climate Action in 2015.

In the following paragraph some important cases about climate change and rights of the unborn generations will be presented.

2.2. Climate change and the rights of future generations

The link between climate change and the rights of future generations is made clear by the [proposal](#) presented on 29 September 2021 by the Parliamentary Assembly of the Council of Europe (rec. n. 2211) of an additional protocol to the ECHR on the right "to a safe, clean, healthy and sustainable environment". That protocol seems to be useful in order to update the Council of Europe's legal arsenal and to link national action with international treaties such as the Paris Agreements and the UNFCCC.

The Assembly is highly concerned with the needs to protect human rights to present and future generations in the era of systemic environmental threats.¹³

Moreover, Michelle Bachelet, UN High Commissioner for Human Rights stated that "We at the UN are committed to working with States to protect the space for civic freedoms, and to advance climate justice for the children and young people of today – and tomorrow. Working together under the Secretary-General's Call to Action for Human Rights, every UN organization has committed to promoting the right of children, youths and future generations to a healthy environment".¹⁴

There is a clear link between the [Proposal](#) for an additional protocol and the Case that will be present. The aim of the additional protocol is to define the right to a healthy environment as an autonomous right of humanity in order to bear the solemn responsibility to protect and improve the environment for present and future generations.

One important [Case](#) that needs to be stressed is the claim under the convention on the rights of the children, on the Third Additional Protocol by 16 children and youths (one of them is the young activist Greta Thunberg) against Argentina, Brazil, France, Germany, and Turkey.

The applicants claim the violation by the Member States of the right to life (Art. 6), the right to health (Art. 24), the rights of children Autochthonous (Art. 30) and the right to the pre-eminent consideration of the higher interest of children (Art. 3).

The applicants accuse the Member States of failing to prevent and mitigate the effects of climate change and therefore of violating children's rights and demand the intervention of the UN Committee on the Rights of the Child so that children are adequately protected.

Moreover, they claim that climate change is not an abstract future threat.

The Committee made clear that the Convention gives rise to extraterritorial obligations to address climate change.

It pointed out that it was generally accepted and corroborated by scientific evidence that the carbon emissions originating in the Member States and for which they have responsibilities contribute to the worsening of climate change and of the enjoyment of human rights by individuals.

Speaking of children's rights, children are particularly impacted by climate change effects and consequently they are entitled to special safeguard.¹⁵

Although the Commission declared the complaints inadmissible due to non-exhaustion of domestic remedies, the decision made significant progress in the matter of State responsibility under climate change and human rights.

Another significant case that needs to be presented is [Duarte Agostinho by the ECtHR](#), the first climate change case, which is still pendent. The applicants are six Portuguese children and young adults, with the [crowd-funded](#) support of the [Global Legal Action Network](#) (GLAN) and the respondents are 33 Member States of the Council of Europe.

The applicants claim the violations of articles 2, rights to life, and 8, respect for private and family life, of the ECHR read in the context of the 2015 Paris Agreement. Moreover, they made a discrimination claim, arguing that their generation will particularly suffer the effects of climate change.

The applicants reaffirm that the contribution by each of these States to global greenhouse gas emissions means that they share responsibility for the existing and impending harms caused by global warming and climate change. Furthermore, the applicants confirm the extraterritorial jurisdiction for significant transboundary environmental harm and ask the Court to determine whether the respondent States are taking enough effort for the mitigation.

It is significant that the Court asked the parties to comment also article 3 ECHR, prohibition of torture and inhuman and degrading treatment, as well as the right to property in Article 1 of Protocol No. 1 to the Convention.¹⁶

The last significant [case](#) that needs to be stressed is the one in front of the Supreme Court of Justice of Colombia where the applicants are 25 children.

In the sentence, the Court underlines that the destruction of the forest causes immediate damage to the lives of current and future generations. It is also stated that natural assets are the owners' right as well as other people's and therefore, because of this, they must be protected by both the government and local authorities.

For the Colombian Supreme Court, the countries' authorities are not doing enough to protect the area from deforestation and are failing to take adequate account of the effects of deforestation on climate change. For this, the Court ordered the competent authorities to formulate, within a period not exceeding four months, a short, medium and long-term action plan to combat the rate of deforestation in the Amazon, also considering its importance to mitigate the effects of climate change.

Those cited sentences are important in the perspective of the affirmation of the existence of a real "right of future generations" with respect to the measures that the States must take to protect them from the effects of climate change.

3. Case studies

Proceeding with the investigation on climate change and the protection of the environment from a local perspective, we suggest a study on diverse situations that affect Italy, presenting a series of related problems over the years.

From a geographical point of view, the Italian peninsula includes a wide range of natural ecosystems, climatic zones and characteristic environments. The boot that reflects itself on the Mediterranean Sea includes two main mountain ranges (Alps and Apennines), a very developed and extensive water catchment area and several volcanoes located mainly in the southern regions. This variety of scenarios is accompanied by as many environmental risks, such as the possibility of landslides, volcanic eruptions and earthquakes that sporadically affect the national territory. Of course, these dynamics add up to the problems already known on a global scale, such as climate change, global warming and pollution in general.

The combination of these situations, therefore, puts Italy in a particularly vulnerable position in the climate context, also considering the strong additional impact derived from anthropogenic hazards¹.

3.1 The issues analyzed

3.1.1 The Waste Crisis in Campania

The first case concerns a successful story in the field of waste management, and particularly concerns a dynamic that can now be considered almost obsolete. Reference is made to many episodes in which, during a crisis in the disposal of municipal waste that lasted about 20 years, large quantities of garbage were burned systematically in the provinces of the Campania region.

Passing through periods of greater or lesser criticality, municipal solid waste in Campania was not collected regularly, thus accumulating on the street in the absence of a waste reduction policy, and especially for the systematic and continuous sabotage of waste sorting².

This crisis had arisen in response to the saturation of some landfills that were unable to process the high number of waste and had begun to have criminal connotations because linked to illegal activities related to certain mafia groups. The situation, which was accompanied by strong political connotations of protest, resulted in a state of emergency for which a Commissariat was established, wanted by the national government: to solve the crisis, new landfills were built and waste that could not be disposed was distributed in other national and foreign centres. Currently, the crime of burning waste has become rarer although not completely absent, and Italy has become one of the first countries in Europe in the rankings of countries that recycle more waste³.

3.1.2 Air Pollution and Low Air Quality

Nevertheless, one of the consequences of this crisis is an important deterioration in air quality, the second main theme in the presentation of the Italian case studies. In 2019, Italy was confirmed as one of the EU countries with the highest number of pollution deaths in absolute terms. Air pollution is caused by contamination of the indoor or outdoor environment by chemical, physical or biological agents that modify the natural characteristics of the atmosphere, such as domestic heating equipment, mass farming, vehicle engines, industrial installations and forest fires. According to data from the

¹ Climate Adapt (2015) *National circumstances relevant to adaptation actions*: <https://climate-adapt.eea.europa.eu/countries-regions/countries/italy>

² Grosso, A. and Marinella, V. (2008) *Rifiuti. Produzione e gestione in Campania*, Agenzia regionale per il recupero dell'ambiente, Napoli.

³ Frojo, M. (2021) *L'industria del riciclo italiana ha il primato in Europa*, La Repubblica: <https://www.repubblica.it/dossier/economia/transizione-sostenibile/2021/06/07/news/l-industria-del-riciclo-tricolore-ha-il-primato-in-europa-303880372/>

European Environment Agency, every year in Italy there are over 50 thousand premature deaths due to excessive exposure to air pollutants including particulate matter (Pm2,5), nitrogen oxides (NO2) and tropospheric ozone (O3) ⁴.

In Italy, it emerged that in 2020, out of 96 provincial capitals surveyed, 35 exceeded the daily limits for fine particles; in relation to the Guidelines of the World Health Organization, they were 60 ⁵. Air pollution causes a series of indirect consequences affecting the phenomenon of acid rain, damaging crops and causing a series of respiratory diseases. In particular areas of northern Italy, the effects of the Covid were much more dramatic and frequent due to the polluted air. Unfortunately, the Po Valley, located in the north of the country, as well as being an important industrial and commercial centre, is also one of the most polluted areas of Europe, because of the conformation of the territory and the high rates of emissions that have no way to disperse as they are surrounded by the mountains.

3.1.3 Dramatic Rise in Temperatures

However, pending effective solutions that contribute to the improvement of air quality, the country faces a further problem resulting, among other things, from increased pollution, namely global warming and rising temperatures. The third case study, in fact, concerns extreme heat events that have recently affected the peninsula. On 11th August 2021, the historical peak record of temperature in Europe was reached by Sicily with 48.8°C⁶. For this reason, the municipalities activated all the necessary procedures during the summer season, with the Civil Protection volunteers, who patrolled the territory and distributed water to the elderly and children in public places.

This trend is worrying not only for its immediate effects but also for its long-term ones, since extreme heat can have consequences for agriculture, the cornerstone of the local economy. In many regions of the South, farms have decided to convert production to crops (that until a few years ago came only from tropical regions) that in less than three years have doubled exceeding 1000 hectares, to deal with the new temperatures caused by climate change⁷. First there was an experimental phase, then young farmers started real fruit cultivations typical of Asia and Latin America (from bananas to mangos, from avocado to lime, from passion fruit to litchi) thanks to their efforts, often recovering and revitalising abandoned lands due to climate change. With a temperature above 2.18 degrees the historical average, human-induced global warming is making extreme events such as fires and heat waves more likely and widespread, especially because climate change increases the risk of hot and dry climate⁸. For the same reason, drought is also becoming more severe, as well as rising sea surface temperatures which, by heating the surface air, makes more energy available for storm formation, such as hurricanes, cyclones and typhoons. A warmer atmosphere therefore makes even extreme precipitation more likely, with heavy rains that can cause sudden flooding.

⁴ La Stampa (2021) Disastro Italia: siamo i peggiori in Europa per le morti da inquinamento dell'aria: <https://www.lastampa.it/cronaca/2021/11/15/news/disastro-italia-siamo-i-peggiori-in-europa-per-le-morti-da-inquinamento-dell-aria-1.40923558>

⁵ QuiFinanza (2021) Le politiche per l'inquinamento in Italia: <https://quifinanza.it/green/inquinamento-italia-situazione-soluzioni/495532/>

⁶ Il Sole 24 Ore (2021) A Siracusa caldo record: oltre 48 gradi, primato in Europa: <https://www.ilsole24ore.com/art/caldo-siracusano-oltre-48-gradi-record-europa-AELHzXc>

⁷ Cibo 360 (2021) Frutti esotici: sono coltivati anche in Italia?: https://www.cibo360.it/alimentazione/cibi/frutta/frutti_esotici_coltivati_italia.htm

⁸ Climate Adapt (2015) National circumstances relevant to adaptation actions: <https://climate-adapt.eea.europa.eu/countries-regions/countries/italy>

3.1.4 Risk of Floods and Cloudburst

As a result, the sum of what has been presented so far leads us to consider the main problem in the Italian environmental situation, namely the management of water resources and the coexistence with water phenomena including floods and extreme rainfall⁹.

The main problem can be extremely summarized in the idea that there are areas that suffer from excess water and others for its lack, although the origin is attributable in both cases to the rise in temperature. On the one hand, the set of resource-wasting habits and the set of increasing restrictions on water use contribute to reducing access to this resource, the demand for which is, however, increasing for sectors such as agriculture, energy and industry and domestic use. On the other hand, the rising temperature creates a new "demand", or an increase in the physical processes of evaporation, for which there are increasingly frequent and powerful precipitations, which give rise to floods, especially in river basins and on the coasts. A strong contribution to this environmental discomfort is also given by the high levels of cement typical of Northern Italy, which prevent the natural flow and absorption of rain, overloading the groundwater¹⁰: This causes a build-up of water in urban areas, while where there are rivers running through cities, this contributes to increasing their flow and eventually to increase the risk of flooding. these dimensions both represent a cost: the lack of water represents a limit to agricultural and industrial production processes, as well as a precursor to a potential reduction of universal access to this resource, which remains one of the fundamental human rights linked to the well-being and health of people; in the same way, the excess of water represents a recurrent threat which is accompanied by damage to people and businesses located in rivers and coastlines.

3.1.5 Soil degradation and desertification

The process that progressively makes land infertile and unproductive is called desertification; it is caused by climatic variations, natural events and high human exploitation of the soil (agriculture, intensive livestock farming, deforestation and overuse of water). More specifically, when land is degraded, soil carbon and nitrous oxide are released into the atmosphere, making soil degradation a major contributor to climate change. This is also where NBS can be deployed to mitigate the negative effects of this process, for example, through green measures to protect against erosion.

From an economic point of view, desertification causes a few tens to a few trillion dollars of losses per year. Moreover, if it is not slowed down, it is estimated that it will cause 700 million environmental refugees by 2050.

As a matter of fact, drylands comprise more than 40% of the world's land surface, and are inhabited by nearly 3 billion people. It is worrying to think that, in the last 40 years, the planet has lost 1/3 of its arable land due to soil degradation and erosion, mainly in North Africa, Sub-Saharan Africa, the Middle East and Central Asia.

Moreover, it is not a problem far from us since, according to ISPRA, 10% of Italy is highly vulnerable to desertification and about 49.2% shows a medium vulnerability, especially in Sicily. The figures for Italian wine production in 2021 speak for themselves: according to estimates by the World Organisation of Vine and Wine, they will be among the lowest ever recorded. The numerous extreme weather events that occurred during the year compromised the grape harvest and more. According to the WWF Italy report "2021 Climate effect: the black year for Italian agriculture", rice production fell by 10%, 1 fruit in 4 was lost, the oil year did not meet forecasts, and honey production fell by up to 95%. In addition, a study by Aalto University reveals that, unless action is taken quickly against global warming, global agricultural production will be at risk by 2100.

One of the driest areas in the world, however, is the Sahara Desert, although it has not always been so. The variations in its nature are in fact due to the increasing number of natural disasters that have

⁹ Polaris (2019) Una storia di alluvioni in Italia (1951-2018): <https://polaris.irpi.cnr.it/una-storia-di-alluvioni-in-italia-1951-2018/>

¹⁰ Adragna (2021) L'Italia perde 2 metri quadri di suolo al secondo, La Repubblica: <https://www.repubblica.it/green-and-blue/2021/09/07/news/consumo-suolo-italia-316839527/>

befallen this area. Some direct consequences are: sandstorms, longer periods of drought and more violent and sudden rainfall events. It is therefore not surprising that, in the last century, the Sahara Desert has expanded by 10%, especially towards the south, where the Shael is located. This term, in Arabic, means 'edge of the desert' and, in fact, it indicates the semi-arid zone of transition from the Sahara Desert to the African savannahs.

But what is one of the most visible consequences for a European citizen? Certainly migration. Indeed, the advance of the desert and adverse natural events bring with them innumerable consequences, including an increase in disease, poverty, food insecurity and infant mortality rates which, in turn, drive thousands of young people to seek safety by turning to terrorist groups such as, for example, Boko Haram, a jihadist terrorist organization based in northern Nigeria, allied with the Islamic State since 2015.

3.1.6 Environmental migrants

Environmental conditions have always been a cause of migration: people flee from natural disasters such as floods, hurricanes and earthquakes. Due to climate change, these events have worsened, increasing the number of people on the move.

Although there is no international common definition, environmental refugees are people who, due to sudden or gradual environmental changes which negatively affect their living conditions, are forced to leave their homes, either temporarily or permanently, and mainly move to another area of their country or abroad.

Not only is there no definition at an international level, but there is also a terminological debate: environmental migrants, eco-refugees, environmental/climatic refugees or environmentally induced migration? The lack of a common terminology mirrors the lack of legal protection: «creating a "legal category" means agreeing on terminology, agreeing on causes and effects, and it also means deciding who to protect and who to exclude, who to welcome and who to reject. It means recognizing an ongoing phenomenon and looking for legislative solutions».

The difficulty in recognizing that there is a connection between climate change and migration is due to so called slow-onset events, i.e. all those changes that cause a progressive, but slow, deterioration of the climate, for example soil desertification and melting glaciers.

From a legal point of view, the 1951 Geneva Convention establishes who is a refugee, the rights of individuals who are granted asylum, and the responsibilities of nations granting asylum. But the Geneva Convention does not provide for the protection of climate migrants. This means that under international law this category of migrants does not exist. Let us look at an example:

A citizen of the island of Tarawa in the Republic of Kiribati seeks asylum under the Geneva Convention in New Zealand because his life is in danger due to rising seas caused by global warming, which threatens to completely submerge the island where he and his family live. The New Zealand government recognised the real threat to the Kiribati Islands but rejected Mr Teitiota's request and sent him back to his home country, believing he was not exposed to imminent danger. Mr Teitiota appealed to New Zealand's courts and was rejected at all stages of the proceedings. The Committee does not rule on the possible extension of the refugee definition, outlines the protection he is entitled to under international refugee law but also under human rights law, and rules that in this case Mr Teitiota's right to life and ultimately that of his family has not been violated by New Zealand.

We must take into account, however, that «environmental degradation, climate change, and unsustainable development constitute some of the most urgent and serious threats to the ability of present and future generations to enjoy the right to life and to affect the well-being of individuals».

This issue is also close to the heart of Pope Francis, who, in the *Laudato si*. Encyclical on the Care of the Common Home, observes “The tragic increase of migrants fleeing misery aggravated by environmental degradation, who are not recognized as refugees in international conventions and carry the burden of their lives”.

The numbers of these migrations are already high but could grow exponentially in the future. At the current rate of emissions and without compliance with the Paris Agreement, the UN has estimated that there will be at least 200 million environmental refugees by 2050. International recognition of environmental reasons as a cause of migration is therefore necessary, either by revising the Geneva Convention or by creating a new one, and providing assistance to nations that could generate large numbers of environmental refugees.

3.2 Possible solutions

3.2.1 Nature Based Solutions

The International Union for Conservation of Nature (IUCN) uses the following definition for NBS: "Actions to protect, manage and restore natural or modified ecosystems, which address societal challenges, in an effective and appropriate manner, providing human well-being and biodiversity benefits". The effectiveness and feasibility of NBS has been demonstrated by numerous applications in different sectors and scales, as exemplified below.

3.2.1.1 Microclimate Regulation and Air Quality¹¹

It is well known that cities are generally warmer than their surrounding areas, a determining factor for the liveability of urban areas in the current global warming scenario. In fact, the temperature increase in urban centres can in some cases reach several degrees compared to rural areas, mainly due to paved surfaces, traffic and heating and cooling systems.

The GreenInUrbs project has shown that an increase in green areas (in particular 'urban forests') leads to a reduction in heat stress. The judicious choice of plant species, their density and the combination of small and large green spaces within the urban network of streets and squares dramatically increases the urban heat island mitigation efficiency (UHI). There are advantages and disadvantages related to seasonality, the ability of plants to absorb CO₂ (evergreen species can mitigate pollution even in winter), but also to the difficulties of cleaning the streets in autumn or people's sensitivity to pollen in spring (see the ISOSCAPE project and North American Universities).

Another example is the BRIDGE project which used different approaches to assess the contribution of trees in London in removing air pollutants. It was estimated that trees planted in the city removed between 852 and 2121 tonnes of PM (particulate matter) annually. Furthermore, researchers have predicted that increasing tree canopy cover by between 20% and 30% could improve the removal of atmospheric particulate matter in a range of 1.1 to 2.6% by 2050. Pollutants (e.g., PM, O₃) are a problem that needs to be considered: in Europe, they are responsible for 406,000 premature deaths and a study carried out in India showed that these pollutants lower life expectancy by 9 years.

Herbaceous species can also be useful components of green walls and roofs (on an urban scale they can reduce city temperatures by between 0.3 and 3°C). In addition to green areas, however, the availability of water at city level and the presence of blue spaces (such as rivers, lakes, dams, fountains) also play an important role and have a significant impact on the cooling efficiency of cities.

Several recent studies including the one developed by the Bluehealth project and the one carried out by the EKLIPSE expert working group (WHO) have found that public health and the presence and accessibility of natural environments are positively correlated. The use of NBS to reduce the effects of urban heat island and air pollution leads to positive consequences in terms of mental well-being (decreasing stress levels) and physical well-being (promoting physical activity and decreasing deaths from cancer, heart disease, respiratory infections and obstructive pulmonary disease. There is less of a correlation between exposure to blue/green outdoor space and general health, obesity and cardiovascular disease). Green and blue spaces also promote cognitive and social development in children by influencing parameters related to behavioural and memory development and may alleviate

¹¹ European Commission, "[Nature-based solutions for Microclimate Regulation and Air Quality](#)", 2020

symptoms of attention deficit/hyperactivity disorder. Infants' brain development also seems to be faster when in contact with green areas. Furthermore, green and blue spaces can also be a tourist attraction and thus enhance the prestige and image of the city.

3.2.1.2 New Employment Opportunities¹²

The use of NBS can represent an opportunity to create employment. For example, in 2005, the city of Zagreb (Croatia) launched an education and training programme aimed at reducing unemployment by maintaining its green spaces. Zagreb has several parks, such as Medvednica and Park Maksimir, which require considerable resources and skills to maintain and clean. The programme trains the long-term unemployed to work full-time maintaining green spaces in exchange for free training programmes in a range of skills that can help them re-enter the local labour market. Participants can choose courses ranging from higher education to vocational training in areas such as health, construction, office administration and catering.

From 2005-2015, more than 3,000 unemployed people participated in the programme and about 30% found work. This has helped reduce poverty and increased motivation and self-confidence among the participants. Through the project, around 300 people have been involved each year in maintaining public green spaces and removing illegally disposed waste from forests, meadows and waterways, which has become a major threat to biodiversity in the region.

3.2.2 The Great Green Wall

The biologist Richard St. Barbe Baker, during an expedition in the Sahara in 1952, first proposed a "green barrier" to oppose the advance of the desert: his idea to contain the desert was to create a long belt of trees 50 km wide. The idea was then proposed again in 2002, at the extraordinary summit held in N'Djamena (Chad) to mark World Day to Combat Desertification and Drought.

The Great Green Wall is a pioneering African initiative to combat the effects of global climate change and desertification. Led by the African Union (AU), the initiative aims to improve the quality of life of millions of people through the creation of a vast system of productive green landscapes between North Africa, the Sahel and the Horn of Africa.

The initial 12 countries where the GGW had to be built were Senegal (a country that has already planted more than 12 million trees), Mauritania, Mali, Burkina Faso, Niger, Nigeria, Chad, Sudan, Ethiopia, Eritrea and Djibouti. We have now reached 21 countries. And the main institutions that have joined forces for the same purpose are many: FAO, UN, European Union, African Union, The World Bank.

3.2.2.1 Objectives

- Promoting sustainable land and water management in Africa's drylands through a mosaic of interventions including climate-friendly agriculture, sustainable pastoralism, forestry conservation, energy transition and natural resource governance. The goal is to revive 7,800km in length by 15km in width.
- By 2030, the goal is to accumulate 250 million tons of CO₂ and create 10 million jobs. This will help communities near the Great Wall to grow more fertile land, increase economic opportunities for the younger population so that the only solution is not to join terrorist groups or migrate, increase the amount of food available, and increase climate resilience in an area where temperatures are rising faster than anywhere else on Earth.

3.2.2.2 The Main Positive Effects of the Green Wall to Date

¹² IEEP, "[Nature-based solutions and their socio-economic benefits for Europe's recovery](#)", February 2021

- Nomadic groups become sedentary, which means that more children can go to school, fewer people join armed or terrorist groups and, therefore, there is less migration;
- The new fauna that is planted is often useful for feeding the indigenous population and for trade, as there is a wide variety of plants (the types are chosen according to which plants are best able to live in certain conditions, under the advice of local farmers);
- Ecosystems are revitalised during the rainy season;
- Food insecurity and poverty are reduced.

3.2.2.3 Progress of Work

Where do we stand 15 years after the start of work and 10 years after completion?

The first evaluation survey, commissioned by the United Nations Convention to Combat Desertification and published in September 2020, indicates limited progress: it is surprising to note that only 4 million hectares have been built in the 11 founding Member States, i.e. only 15-18% of the area the project aims to cover by 2030.

3.2.2.4 The Causes of Slow Progress

- Increased political instability in the Sahel region which has prevented any action in large areas;
- The short-term nature of the project funding makes long-term planning difficult. Linked to this factor is the fact that the human and financial resources invested have proved insufficient. It has been calculated that 33 billion US dollars will be needed by 2030. Worryingly, during the One Planet Summit For Biodiversity on 11 January 2021, French President Macron promised only 14 billion dollars.

The new funding comes from the World Bank (\$5 billion), the European Commission (€2.5 billion), the Green Climat Fund (\$82.8 million), €1 billion from the European Investment Bank, the French Development Agency (€600 million), the African Development Bank (\$6.5 billion over the next five years), the International Fund for Agricultural Development (IFAD), the International Finance Corporation, the FAO (\$238 million) and the UNCCD. The African Development Bank, on the other hand, will be responsible for mobilizing the resources and will help to raise all the funds needed to implement the GMV by 2030.

- Planting times are tight: during only two to three months of the year trees can take root more easily (rainy season);
- Global warming and grazing by herds and flocks threaten the long-term survival of the plants.

3.2.3 Environmental education

Environmental education is a cross-curricular education that begins in early childhood and continues throughout adult life (long-lasting education). Its objective is to teach the structure and organization of the natural environment, as well as to educate people to manage resources and use them in an appropriate and sustainable way. In fact, it is described as the discipline that does not simply deal with the study of the natural environment but is configured as an action aimed at promoting changes in attitudes and behaviors of people, both individually and at the community level¹³. The MIUR gave the following definition in 2018: "the construction of a sense of legality and the development of an ethic of responsibility, which are realized in the duty to choose and act consciously and which imply a commitment to elaborate ideas and promote actions aimed at the continuous improvement of one's

¹³ <https://www.orizzontescuola.it/educazione-ambientale-in-classe-limportanza-del-rapporto-con-lambiente-nella-scuola-moderna/>

living context, starting from daily life at school and personal involvement in customary routines that may concern the cleaning and good use of places, the care of the garden or the yard etc..."¹⁴.

Today, at school, issues that were previously left to the mere discretion of the teacher have become common practice : we talk more and more about biodiversity and preservation of the land and cultural heritage, we study how to avoid waste starting from separate collection, we analyze climate change and the issue of pollution in cities, we promote the use of renewable energy and encourage eco-sustainable consumption. The goal is to instill in the new generations the awareness that the planet's resources are limited, and that therefore it is up to all of us to reshape the relationship between man and the environment, to reach a vision in which the former does not seek to indiscriminately exploit the latter but learns to respect nature and preserve the wealth it gives us every day.

Aware of the fact that the planet's resources are limited and that every action irreversibly leads to a consequence, environmental education, in short, aims to educate human beings to manage their own behavior in relation to the ecosystem, without altering the balance of nature but at the same time managing to meet the needs of the community present at that particular moment in history.

4. Recommendations

Now at the end of this report, it is necessary to identify possible and potential solutions to the major problems that emerged during this analysis. We think that there are five fundamental pillars on which the work to combat climate change is based. These concepts are exportable and adaptable to the specific needs of different contexts, precisely because local or individual commitment and efforts are realized when they become universal movement.

Information: The theoretical approach to environmental issues has a privileged and primary place among the initiatives needed to promote sustainable attitudes and behavior among people. Understanding the causes, dynamics and effects of climate change, as well as specific environmental risks affecting different parts of the planet, is the first step to prevent and moderate the advent of new adverse situations. In this context, it is imperative to enhance the role of science and to give relevance to experts who work daily to share fundamental knowledge for the whole world. Moreover, this aspect necessarily relates to the ways and means by which information is conveyed and disseminated by the mass media. It is desirable that scientific knowledge should prevail inexorably over divergent and dissident currents of thought, so as to trace a common path to which reference can be made. Environmental training should therefore be promoted in an increasing number of situations, especially in schools and through various awareness and information initiatives.

Education: As previously anticipated, the approach of minimizing the impact of climate change and its consequences can only be the result of a civic education focused on environmental issues. There is a comprehensive and inclusive set of tools and attitudes aimed at increasing the sense of responsibility in communities. Some of the solutions adopted as collective commitment and effort are for example the reduction of waste, the separate collection or the use of renewable energy sources. Specifically, it is therefore necessary to guide the conversion of people's habits towards a growing culture of sustainability. This means elevating these preferences or consumer choices from a domestic or private level to a systematic plan of social importance: one way through which this revolution can be produced is to work uninterruptedly to the dissemination of these simple gestures, promoting the reduction of air pollution, the preservation of the territory and the protection of biodiversity.

Innovation: Nowadays, society has a variety of means to improve the quality of life and consequently the relationship of civilization with nature. Much of the technological progress and its constant and rapid evolution makes it possible to find solutions to the great environmental problems that afflict the planet, but these innovations are not always put at the service of the environment. It is important to make a change of mentality, moving from the perspective of profit to collective well-being, using the tools of modernity to reduce the environmental risks with which the world is confronted. Examples

¹⁴ <https://www.miur.gov.it/documents/20182/0/Indicazioni+nazionali+e+nuovi+scenari/>

such as biofuels, electric motors and energy-saving electronic devices must replace their obsolete and inadequate counterparts. This conversion to greater energy efficiency must be fostered both by institutions and by individuals and businesses, so as to maximize the benefits of development in the long term without harming the environment and the planet.

Action: Although it may seem superfluous, it is essential that good intentions, promises and commitments are converted into concrete works and initiatives. Expressions and manifestations of intent can certainly contribute to building a narrative about the goals to be achieved, but they alone are not enough. For change to take place, we need both small gestures and big positions, and these can be, for example, the introduction of new environmental regulations, the ban on the use of hazardous and harmful materials, reducing the use of plastics or emissions. What cannot be lacking in this case is the clarity with which these decisions are taken and the will to respect them. Despite the great successes, we must remember that we can always do better and that today more than ever it is important to do everything possible to deal with climate change, with stubbornness and tenacity without losing the hope that every small contribution is essential.

Collaboration: These ideas are connected to a wider attention to the management of natural resources and respect for nature. Essential elements in this context of conversion and the spread of new habits must be dialogue and collaboration between different actors from different social, national and international spheres. This concept implies that individuals, as well as companies and public institutions, move towards the protection and promotion of the common environmental heritage in the economic and social sphere. It is clear that cooperation involves many compromises, yet it is precisely through sacrifices and mutual understanding that the greatest solutions to the threat of climate change can emerge.

5. Bibliography

- Adragna (2021) L'Italia perde 2 metri quadri di suolo al secondo, La Repubblica: <https://www.repubblica.it/green-and-blue/2021/09/07/news/consumo-suolo-italia-316839527/>
- Cibo 360 (2021) Frutti esotici: sono coltivati anche in Italia?: <https://www.cibo360.it/alimentazione/cibi/frutta/frutti-esotici-coltivati-italia.htm>
- Climate Adapt (2015) National circumstances relevant to adaptation actions: <https://climate-adapt.eea.europa.eu/countries-regions/countries/italy>
- Climate Adapt (2015) National circumstances relevant to adaptation actions: <https://climate-adapt.eea.europa.eu/countries-regions/countries/italy>
- European Commission, “[Nature-based solutions for Microclimate Regulation and Air Quality](#)”, 2020
- Frojo, M. (2021) L'industria del riciclo italiana ha il primato in Europa, La Repubblica: <https://www.repubblica.it/dossier/economia/transizione-sostenibile/2021/06/07/news/l-industria-del-riciclo-tricolore-ha-il-primato-in-europa-303880372/>
- Grosso, A. and Marinella, V. (2008) Rifiuti. Produzione e gestione in Campania, Agenzia regionale per il recupero dell'ambiente, Napoli.
- IEEP, “[Nature-based solutions and their socio-economic benefits for Europe's recovery](#)”, February 2021
- Il Sole 24 Ore (2021) A Siracusa caldo record: oltre 48 gradi, primato in Europa: <https://www.ilssole24ore.com/art/caldo-siracusano-oltre-48-gradi-record-europa-AELHzXc>
- La Stampa (2021) Disastro Italia: siamo i peggiori in Europa per le morti da inquinamento dell'aria: <https://www.lastampa.it/cronaca/2021/11/15/news/disastro-italia-siamo-i-peggiori-in-europa-per-le-morti-da-inquinamento-dell-aria-1.40923558>
- Polaris (2019) Una storia di alluvioni in Italia (1951-2018): <https://polaris.irpi.cnr.it/una-storia-di-alluvioni-in-italia-1951-2018/>
- QuiFinanza (2021) Le politiche per l'inquinamento in Italia: <https://quifinanza.it/green/inquinamento-italia-situazione-soluzioni/495532/>

Links:

- <https://www.orizzontescuola.it/educazione-ambientale-in-classe-limportanza-del-rapporto-con-lambiente-nella-scuola-moderna/>
- <https://www.miur.gov.it/documents/20182/0/Indicazioni+nazionali+e+nuovi+scenari/>



TRANSNATIONAL
YOUTH
FORUM
2022
ADVANCING CHILDREN'S RIGHTS
FOR INCLUSIVE ACTION ON CLIMATE CHANGE

ITALY



UNIVERSITA
DEGLI STUDI
DI TORINO

CLIMATE CHANGE, IMPACTS OF WASTE MANAGEMENT AND RIGHTS OF FUTURE GENERATIONS IN ITALY

SUPERVISORS: PROF. LONGUE, PROF. CAIMOTTO
PARTICIPANTS: FRANCESCA CAVALLARO, ANNA RIZZO,
JONATHAN MEHLFELDT, ELISABETTA TILLIER



Contents

1. Introduction

2. Situational Analysis

2.1. Global impacts of Climate Change

2.1.1. Ecological Impacts

2.1.2. Impacts on human settlements and systems

2.1.3. Direct impacts on livelihood and security

2.1.4. Impacts of mitigation and adaptation action

2.2. Impacts on Italy and the Italian society

2.2.1. Rights of young and future generations and climate change

2.2.2. Rights of young and future generations in Italy

2.2.3. Waste and human rights

3. Case Study: Waste management from Electrical and Electronic Equipment

3.1. Meeting with Ecocerved: A territorial analysis of the Piedmont region.

3.2. Meeting with Italian Climate Network: The impact of their activities on youth.

3.3. Meeting with UnitoGo: An example of academic youth in action.

3.4. The criticalities

4. The Framework of Italian Environmental Law

4.1. Constitutional Law

4.2. Material law

4.3. Enforcement and practice

5. Analysis of best practices

5.1. Best practices in WEEE management

5.2. Impact mitigation regarding the waste sector

5.3. Best practices in youth participation and protection of future generations

5.4. Recommendations to EU policymakers based on the results of our research & conclusions

Bibliography

1. Introduction

Climate Change – Human Rights. Two terms that denote highly complex and interconnected notions in the current political and legal landscape. One term implies the other: Climate Change cannot be understood without considering its impacts on the human experience and livelihood – conceptualised in the legal sphere as expressions of Human Rights. On the other hand, Human Rights, and especially more recent formulations of those fundamental rights such as the right to water¹ or the right to a safe and sustainable environment², are informed by the experiences and projections of the impacts of Climate Change. In the following report, we will provide a Situational Analysis outlining the linkages between Climate Change and Human Rights, the rights of young and future generations and the impacts of waste and waste management³. We will then present a Case Study focusing on waste and e-waste on the regional levels of Piemonte and Turin, Italy, followed by a brief introduction to the Italian Environmental Legal Framework. We will then discuss best practices both in waste management and the protection of young people and future generations. The report concludes with policy recommendations to the Transnational Youth Forum 2022.

The Transnational Youth Forum 2022, to be held from the 15th to the 18th of March 2022 in Nicosia, Cyprus, “aims at bringing together youth, experts and policy-makers from different European countries to foster debate, promote the active participation of young people and raise awareness on the interdependence between Climate Change and the Rights of Future Generations.”⁴ It is co-financed by the Erasmus+ Programme of the European Commission. Participating institutions are the University of Turin and the University of Verona from Italy, the New University of Lisbon from Portugal and Rinova Ltd from the UK.

¹ See *United Nations* 2010.

² See *United Nations HRC* 2021; *United Nations* 2018.

³ For our motivation regarding that choice of topic, see p. 4.

⁴ <https://www.uncrcpc.org.cy/en/project/transnational-youth-forum-2022-climate-change-global-concerns-and-impact-on-the-rights-of-the-future-generations/>.

2. Situational Analysis

The impact of climate change on the young generation and their involvement in such a debate is of utmost importance, especially following the announcement of the President of the European Commission Ursula von der Leyen to make 2022 the European Year of Youth.⁵ Furthermore, at the European level, the Waste Framework Directive sets the challenges related to waste management, recycling and circular economy which will be one of the headlines of the Commission's work program in 2022. Therefore, both this issue and the role that the youth can play in it will be topical in the next year.

It is "beyond debate"⁶ that the impacts of Climate Change affect the enjoyment of Human Rights all over the world. The affected rights are, most notably, the rights to life, to health, to housing, to food, to water and sanitation, to education, to participation, to livelihood, to self-determination of peoples, to development and to freedom of movement.⁷ To avoid overlapping and overexplanatory remarks, we will focus here on the most impactful aspects of Climate Change, which naturally involve and affect multiple interconnected aspects of both nature and human livelihood and therefore infringe on multiple Human Rights.

2.1. Global impacts of Climate Change

2.1.1. Ecological Impacts

Climate change has led and will increasingly lead to a reduction of water (re)sources and droughts especially in subtropical regions, affecting freshwater supply, agriculture and even industry and energy production (*rights to water and sanitation, food, health, life, livelihood...*). Changes in regional climate and extreme weather events contribute and will contribute to "irreversible [...] change in [...] ecosystems", affecting plant-, animal- and human-life (*rights to food, livelihood, sustainable environment...*). This applies especially to coastal and ocean systems and is due to changes in temperature and the chemical/physical properties of those systems. Rising sea levels put low-lying areas around the globe at risk of flooding, erosion, and saltwater intrusion (*rights to housing, livelihood, self-determination of peoples, freedom of movement...*).⁸

2.1.2. Impacts on human settlements and systems

Urban areas, easily perceived as "separate" from surrounding nature, will be affected by sea levels, extreme weather events such as heat waves and storms, water scarcity and pollution (*rights to health, housing, livelihood...*). A similar impact is to be expected regarding rural areas, affecting especially agricultural systems and developing settlements (*rights to food, self-determination of peoples, development...*). Both direct climatic impacts and their systemic consequences will interfere with economic systems, especially those involving natural resources and including the energy, electricity, insurance and transport sectors (*rights to food, water and sanitation, livelihood, development...*).⁹

2.1.3. Direct impacts on livelihood and security

Climate change affects the livelihoods of people all over the world through destruction of natural resources and homes and displacement. Indirect effects will result in economic and political instability,

⁵ See Agence Europe 2021.

⁶ United Nations OHCHR 2015a.

⁷ Amnesty International; Greenpeace International; United Nations OHCHR 2015b, p. 13 ff.

⁸ UNEP 2015, p. 3 ff.

⁹ UNEP 2015, p. 5 ff.

further contributing to poverty, inequality and conflict that undermine the livelihood of individuals (*rights to livelihood, development, participation...*). Besides extreme weather events and decreased food production, impacts on labour and productivity as well as increased risks of “food-, water- and vector-borne diseases” such as COVID-19¹⁰ that are attributed to health risks (*rights to life, health, water and sanitation, food...*). Climate change will further affect basic resources, culture and identity, migration and states’ ability to provide individual security (*rights to freedom of movement, livelihood, self-determination of peoples...*).¹¹

2.1.4. Impacts of mitigation and adaptation action

The actions undertaken by states and corporations to mitigate the effects of climate change can and have impacted human rights enjoyment. For example, hydroelectric projects can affect local settlements and ecosystems, while biofuel projects can contribute to food and water shortages and deforestation. Some adaptation measures benefit one group while disadvantaging others, such as coastal fortifications.¹²

2.2. Impacts on Italy and the Italian society

Italy is considered a vulnerable area regarding impacts of Climate Change – as is the Mediterranean area in general¹³ – and it might be among the most affected countries in Europe. This is due also to its geographical layout and geological makeup, consisting of diverse ecosystems within mountain ranges, large forest areas and several islands.¹⁴

Studies have observed both an increase in mean temperature and a decrease in average and winter precipitation. Similarly, they have observed both an increase in hot days and nights and a decrease in cold nights.¹⁵

The most affected areas will be forest and coastal regions: Forests – covering 35% of Italy’s territory – will be subjected to changes in growth rate and biodiversity (composition of species/displacement thereof) as well as a rate of climate change exceeding that of colonisation or adaption of the local ecosystems and a significant risk from more frequent, more widespread, and longer-lasting forest fires.¹⁶ The risk of soil erosion and desertification especially in the South of Italy is similarly caused by a rise in temperature and droughts.¹⁷ 4500km of Italy’s 7600km coastline are at risk of flooding within the next 100 years, with 42% of beaches already undergoing erosion. Saltwater intrusion will be further exaggerated by sea level rise and a significant loss of coastal land and marine life is to be expected.¹⁸ These physical impacts entail significant costs in both losses, compensation and mitigation.¹⁹ Besides ecological impacts, Italy’s agriculture sector will face risks in both plant- and animal-based production due especially to water shortages and changes in temperature and precipitation.²⁰ Effects on water management systems, already under high stress in some regions, will result in reduced water quality and availability with the risk of overexploitation of sources in periods of droughts.²¹ The tourism sector will also be negatively affected by especially greater discomfort and health risks of tourists during

¹⁰ For an introductory discussion of that link see *Amnuaylojaroen, Parasin 2021*.

¹¹ *UNEP 2015*, p. 7 f.

¹² *UNEP 2015*, p. 8 ff.

¹³ See *Carraro, Sgobbi 2008*, p. 2.

¹⁴ *Climate-ADAPT 2021; World Bank Group*.

¹⁵ *World Health Organization 2007*, p. 8 ff.

¹⁶ *Climate-ADAPT 2021; Fondazione CMCC 2020*, p. 15 f.

¹⁷ *World Health Organization 2007*, p. 22 f.; *Climate Analytics 2020*, p. 24 f.

¹⁸ *World Health Organization 2007*, p. 21 ff.; *Climate-ADAPT 2021*.

¹⁹ *Carraro, Sgobbi 2008*, p. 5 f.; See also *Galeotti, Roson 2012* for internationally compared impacts on GDP.

²⁰ *World Health Organization 2007*, p. 30 f.; *Fondazione CMCC*, p. 14 f.

²¹ *Fondazione CMCC*, p. 12 f.; *Climate-ADAPT 2021*.

the summer season.²² Urban environments will be among the most affected areas due to higher temperatures, extreme weather events and air pollution.²³

In general, the Italian society will be directly affected by increased mortality and morbidity due to heat waves (but a slightly decreased effect of frost waves²⁴), increased risk of injury, morbidity and deaths from floods, heavy precipitation and fire events and increased risk of respiratory pathologies due to air pollution.²⁵

2.2.1. Rights of young and future generations and climate change

The notions of projection, exponentiality and tipping points are inherent to the concept of climate change. Its perspective is therefore naturally pointed towards the future, which includes not only younger people but also future generations inhabiting our planet.

UNICEF states: “As [the] impact [of climate change] intensifies over time, it is the children and young people of today who will face the worst effects”²⁶. The WHO projects that health risks due to climate change will affect mainly children and young people.²⁷ But also indirect effects will have an impact on children, such as food shortages, migration and societal conflict. Furthermore, the dependency of young children on their parents makes them indirectly susceptible to the psychological, physical and financial risks posed to adults that are attributable to climate change.²⁸

The issue is further complicated by aspects of intergenerational justice: as a recent landmark decision by the German Constitutional Court decided, allocating legal amounts of emissions to timeframes can have implications of intergenerational justice when shifting the burden of reducing emissions onto future generations.²⁹ Regardless of future people not (yet) existing, philosophers do ascribe rights to them³⁰ or at least stipulate the possibility of present actions violating the rights of future people based – for example – on the idea that we can already influence their interests through present action³¹ (*Interest Theory of Rights*³²). Problems of Non-Identity within Intergenerational Justice³³ can be solved – for example – through establishing a notion of harm based on a threshold³⁴, which could be seen in the human right to a safe and sustainable environment.

It is therefore hardly deniable that interests or rights of future people have contingencies on present legal and political action.

2.2.2. Rights of young and future generations in Italy

While the legal protection of children in Italy is on par with other European countries³⁵, the young age group does suffer from certain risk factors which amplify the effects of climate change: about 25% of children in Italy are at risk of poverty, children – especially from the south of Italy – can be found working in the gastronomy or agricultural sector from a very young age and refugee children run the

²² World Health Organization 2007, p. 33 ff.

²³ Fondazione CMCC, p. 10 f.

²⁴ World Health Organization 2007, p. 43 f.

²⁵ World Health Organization 2007, p. 36 ff.; Climate Analytics p. 29 ff.; See also *Climate-ADAPT* 2021.

²⁶ UNICEF 2021.

²⁷ See *McMichael et al.* 2004, p. 1605 f.

²⁸ See *Sanson, Burke* 2020, p. 345.

²⁹ See *Bundesverfassungsgericht* 2021.

³⁰ See for example *Partridge* 1990.

³¹ See for example *Hoerster* 1991.

³² See *Heikkinen* 2020, p. 11.

³³ See originally *Parfit* 1984.

³⁴ See for example *Hanser* 1990; see also *Woollard* 2012 for a “solution” referencing pollution and climate change.

³⁵ See also Part 2 – National Legal Framework.

risk of discrimination and exclusion.³⁶

The Italian legal framework and administrative practices allow for social and political participation of children typical for a European country.³⁷ Italy is also one of the European countries that references future generations in their constitution, albeit in relation to heritage.³⁸

2.2.3. Waste and human rights

When talking about climate change and its accelerants, the topic of waste and waste management comes up in the context of greenhouse gases and emissions of pollutants. Waste, whether it be organic, plastic, industrial, toxic, or electronic waste, and specifically the methods of its “disposal” have an impact on the environment, on the rate and aspects of climate change and on human rights.³⁹ Besides indirect infringement on human rights via the effects of climate change explained above, waste and its disposal also directly affect human rights: pollution of soil, water and air result in detrimental health effects through indigestion of or exposure to toxins, microplastics, particles etc.⁴⁰ Pollution infringes on the rights to health and to life especially of young people that are harmed through exposure to an unhealthy (polluted) environment, diseases attributable to exposure or directly through contact with hazardous substances and toxins.⁴¹ This exposure is facilitated either directly through air or contact with polluted land or landfills themselves or indirectly through water and food systems contaminated by pollutants released by waste and waste disposal sites.⁴² The right to physical and mental integrity extends to the protection against “low-level” exposure experienced on a daily basis in virtually the whole world,⁴³ while some regions – especially those receiving foreign waste⁴⁴ – are affected more severely than Europe.

This topic is especially relevant for Italy due to its history with partly disastrous and human-rights-violating⁴⁵ waste management, for example in the Campania region during 2001-2009⁴⁶. And even more recently, waste management situations in Italy hit the news.⁴⁷

We have examined the effects and practices of waste and waste management more closely in our Case Study, part B of the report.

3. Case Study: Waste management from Electrical and Electronic Equipment

At a time as complex as the present with strong tensions on raw materials markets, better management of raw materials becomes essential for environmental protection objectives, with a consequent strengthening of the growth processes of manufacturing systems. If raw materials are becoming increasingly scarce and more expensive it is necessary, on the one hand, to improve their efficiency in use and, on the other, to increase waste recovery. Through circular economy processes the recovery of waste allows to exploit the waste regenerating them in new input factors. On both these aspects, Italy has made important progress.⁴⁸

³⁶ See *Humanium* 2021.

³⁷ *Woodhouse* 2014, p. 359 ff.

³⁸ *Tremmel* 2006, p. 194, 190 ff.

³⁹ See *UNEP 2010*, p. 14 ff.; *IPCC 2007*, p. 595 ff.; *Ackermann* 2000.

⁴⁰ See *CIEL 2015*, p. 3 ff.; *UNEP 2021a*, p. 1; *UNEP 2021b*.

⁴¹ See *United Nations HRC 2017*, p. 3 ff.; *CIEL 2015*, p. 3 f; *UNEP 2021a*, p. 5.

⁴² See *CIEL 2015*, p. 3 ff.; *Fazzo et al. 2017*, p. 7 ff.; *Alam, Ahmade* 2013, p. 167.

⁴³ *United Nations HRC 2017*, p. 5.

⁴⁴ See for example *Wu* 2002, p. 199 ff.

⁴⁵ *European Centre* 2016; See also *ECHR 2012*, “*Di Sarno et al. v. Italy*, Application no. 30765/08”. Strasbourg, France: ECHR.

⁴⁶ See *Cantoni* 2016.

⁴⁷ See *BBC* 2016, *The Guardian* 2021.

⁴⁸ You can find more information on the *Greenitaly 2021 Report*, paragraph 2.1.1 Eco-efficiency and eco-trend of Italy in the European context, p. 79: “In particular, in terms of resource productivity (Figure 10) - measured in

As regards the aspect of waste recovery, an interesting profile concerns the production of WEEE (Waste Electric and Electronic Equipment) that is associated with technological innovation, the growth of demand in the electronics sector and changes in lifestyle which mainly concern young people. In fact, the shortening of the lifetime of the equipment, together with the inadequate awareness on the part of the consumers, plays a fundamental role in the increase of the production of the WEEE. The problem is particularly acute in developing countries, as the quantity of WEEE produced is positively related to economic development. Rapid growth in WEEE production is therefore expected in these countries in the coming decades. In view of this, new solutions are needed to manage this amount of waste, which may pose various environmental hazards due to its incorrect disposal. In addition, the construction of electrical and electronic equipment consumes considerable amounts of precious metals that are extracted in countries of Africa, Asia and South America by people who often work under conditions of exploitation.

For these reasons, the best solution would be to revalue WEEE and restore it to the business cycle by recovering metals and the plastic fraction they contain. In particular, given their critical metal content, their recovery is a primary objective. Critical metals are a group of metals identified by the EU as decisive for technological development, for which there is a risk associated with their supply for geopolitical reasons and their scarcity. Given the scarcity of these raw materials, it is necessary to increase the efficiency of the recycling of secondary resources, reducing the pressure on the extraction of virgin materials. WEEE could therefore be an important source of metals in the transition to a circular economy. Several technical innovations have been developed to try to manage WEEE in a sustainable way, using an approach aimed at understanding the entire WEEE management chain (collection, pre-treatment, recovery and final disposal). The main problem is that WEEE management is rich in complex mixtures of metals, multi-element alloys and polymetallic structures that make extraction and separation difficult. The complexity of WEEE, however, is tending to increase in line with technological development: modern devices can also consist of 60 elements present as mixtures of metals. WEEE, due to the presence of hazardous substances in its composition, needs specific attention and management.

Italy, as other developing countries, faces an array of challenges for Waste management from WEEE. In 2020, also because of policies to combat the Covid-19 pandemic and the long lockdowns, there was a significant increase in digital and technological goods offered on the market. A trend that has continued even during this year and that has inevitably generated an increase in the production of electrical and electronic waste, related to the disposal of personal computers, smartphones, tablets, video game consoles, various accessories (such as pens and headphones for example), smart TVs, personal assistant devices, smart watches and the whole world of sensors and the internet of things. According to new data published by Weeeforum, on the occasion of the International Day of e-waste, around the world during 2021 it is estimated that 57.4 million tons of electronic/electrical waste will be generated⁴⁹ and by 2026 we will have to reach the recovery target of 55% of electrical and electronic equipment⁵⁰.

euros of GDP generated per kg of material consumed -, Italy in 2020 consolidated its leading position among the large EU-5 countries, with an index value of 3.75, +83.3% compared to 2,05 of 2008. Also in terms of the circular economy, Italy between 2008 and 2019 shows the achievement of important results. In 2019, the second material use rate (Figure 11) - which measures the percentage of recycled waste in the total material consumed - for Italy stands at 19.5". Below is the link: <https://www.symbola.net/ricerca/green-italy-2021/>.

⁴⁹ Link reference: https://weee-forum.org/ws_news/international-e-waste-day-2021/.

⁵⁰ REEE, plastics, textiles are among the priorities identified in the Italian PNRR in the field of waste collection and management within the circular economy.

Firstly, the specific aim of this study is to present an appraisal of the current situation regarding WEEE management in the Piedmont region⁵¹, with a particular focus on the University of Turin, and to make recommendations and suggestions to policymakers in order to mitigate future trends. We must always bear in mind that our actions and lifestyles will also have an impact on the quality of life of future generations. In this sense, Institutions can facilitate the transition to a circular economy and businesses can respond to increasing consumer attention to sustainable growth, but citizens can also, by their choices and their behavior, make a concrete contribution to change. Consequently, this work is also an activity of intervention on the population in order to make citizens aware but above all to correctly recognize and manage electronic waste, among the objects of daily use that fill houses. The idea is to inform and sensitize the current generation on the theme of the circular economy and to involve it in the recovery of the WEEE so that it becomes an active protagonist of the green revolution, for example, inviting citizens to empty the drawers of this equipment that we no longer use instead of keeping them unused because even this small gesture can feed an entire industry that goes to recover all the materials that are inside.

To get a closer look, two meetings, one with Ecocerved and one with UniToGO, were implemented to collect information regarding different aspects of WEEE management, including production, collection, recovery (disposal). A data study, provided by Ecocerved and made on enterprises across the Piedmont region, was surveyed⁵². Also, as you will have the opportunity to deepen in the following pages, in this work we focused on the initiatives carried out within the University of Turin that involve young people and put them at the center of the action of recovery of electrical and electronic waste. In recent years, in fact, Turin has become one of the Italian cities preferred by university students, especially those from other Italian regions or from abroad, with a population of over 105 thousand students. This consideration is important because the link between young people, technology and territory is central to this research.

3.1. Meeting with Ecocerved: A territorial analysis of the Piedmont region.

Ecocerved is an IT company that deals with the development of information systems (databases, applications) that allow communication between the public administration and businesses. The aim of these tools is always to exchange information (timely, aggregated and so on).

Ecocerved is a consortium company within the system of chambers of commerce, in other words it is a software house that operates within a circuit that is restricted to the chamber system. Union Chamber is the national body that groups all Chambers of Commerce, all Union chambers at regional level and all companies operating in the system. As you can guess, it's a very articulate network with multiple specializations. The aspect which interests us in this case is that Ecocerved is the technical-computer agency of all the Italian Chambers of Commerce in their various articulations, including the Chamber of Commerce of Turin, with a further specification because it deals with information systems that specifically concern the environment, the generation, management and transport of waste, emissions to the atmosphere, collection of WEEE and batteries etc.

In many cases, Ecocerved works with other external subjects to carry out research and in-depth research, in other cases it does internal projects with the choice of the topic to be explored, cross-

⁵¹ Piedmont is a region with ordinary status of north-western Italy and it is the second largest Italian region. Turin, the capital, is the fourth Italian city and with the suburbs is close to a million and a half people.

⁵² Territorial analysis of the Piedmont region processed by Ecocerved. As part of the action launched by Unioncamere at national level, through a specific Fund on the circular economy, Unioncamere Piemonte has promoted a regional study based on data from sources MUD, Companies/business Registry and ISTAT. Link: <https://www.ecocamere.it/dettaglio/notizia/330/analisi-territoriale-sul-piemonte>.

referencing this information with Istat⁵³ data, Ispra⁵⁴ data and business register⁵⁵ data to identify issues on which further analysis would be needed. For examples, in the framework of the European project LIFE WEEE - LIFE16 GIE/IT/000645, Ecocerved has developed the software CircolaRAEE with the aim of encouraging the recovery of Waste from Electrical and Electronic Equipment (WEEE), simplifying the administrative procedures for small and medium-sized enterprises (SMEs) involved in the collection of this waste⁵⁶.

As part of the European Week for Waste Reduction, Unioncamere Piemonte⁵⁷ organized a webinar presenting a territorial analysis of the Piedmont region. The territorial analysis, carried out by Ecocerved, updated to reference year 2018, has the general objective of identifying the most significant aspects of the production and recovery of waste and, more specifically, of the generation of second raw materials. In a circular economy model, they are the potential substitutes for virgin raw materials extracted from the natural environment. Although it is correct to say that the circular economy is not limited to carrying out waste recovery activities, in this model the entire production system must be oriented and reorganized to make more efficient use of production inputs and to extend the life-cycle of products, not only to save the collection of resources upstream, but also to reduce (or at least delay) the production of waste downstream.

The study is a structured analysis over many years and segmented on the territory and sectors of activity. In this context, among the types of production activities described in the report, it was decided to select the management of WEEE produced by companies in Piedmont for two reasons. A first quantitative element concerns the fact that special waste (that is, waste produced by companies) is about five times as much municipal waste as that produced by citizens: In Italy about 30 million tonnes are produced each year by the citizens against 150 million tonnes of waste resulting from productive activities. The qualitative reason why it is important to focus on companies is the element of danger, that is the content of dangerous substances within special waste.

Before going into the merits of the report, we will start with some preliminary considerations that allow us to have the tools to deal with the main numbers and information regarding the production of waste. It is very important to read the data of waste production and management in a joint way because the admixtures between these phases are inevitable.

Waste is one of the main sources of pressure of human activities on the environment which, unlike others, is located downstream of production and consumption activities. The estimates coming from international organizations are not very positive: it is estimated that by about 30 years the trending increase of the production of waste worldwide will be of approximately 70% (in terms of orders of

⁵³ The National Statistical Institute (ISTAT or ISTAT) is an Italian public research body dealing with general population censuses, services and industry, and agriculture, household sample surveys and general economic surveys at national level.

⁵⁴ The Higher Institute for Environmental Protection and Research (ISPRA) is an Italian public research body, established by Law No. 133/2008, and subject to the supervision of the Ministry of Ecological Transition.

⁵⁵ In Italy, the business register is the public IT register to which Italian companies, foreign companies with headquarters in Italy and other bodies (for example foundations and associations) are required to register and also act as a means of legal disclosure.

⁵⁶ Reference to the European project LIFE WEEE, in which Ecocerved also participated with ANCI Toscana, Regione Toscana, Camera di Commercio di Firenze, Camera di Commercio di Siviglia (Spain) and Departments of Civil and Environmental Engineering and Information Engineering of the University of Florence. For full details, please visit the LIFE WEEE project website.

⁵⁷ Unioncamere - the Italian Union of Chambers of Commerce, Industry, Crafts and Agriculture - is the public body that unites and represents institutionally the Italian chamber system. Founded in 1901, it carries out and manages services and activities of interest to the Chambers of Commerce and economic categories, coordinating the initiatives of the System through directives and addresses to the bodies that are part of it.

magnitude). This figure is even more worrying when compared to the expected trend for the world population that will be about 40%, with a more than proportional variation in waste production compared to population growth. This criticism opens up to a series of considerations external to the evaluation in the strict sense of the production systems that concern instead the very lifestyles and patterns of consumption that the growing population will gradually adopt by imitating the lifestyle of industrialized countries.

Reading the report shows that in 2018, the production of WEEE in the Piedmont region is estimated at 70800 tonnes of waste (including hazardous and non-hazardous waste), as shown on page 5 in the WEEE section of the dynamic report. As mentioned above, the amount of electronic waste, due to high consumption of electronic products and lifestyle change, is increasing and has led to increased generation of electronic waste in municipal waste streams. Page 6 shows the trend of total waste production in each Province of Piedmont, but even more interesting is the graph on the next page that shows the trend of the total production of waste recoverable for each product group. In the WEEE section we can see that in 2012 the amount of total waste production was 47962.6 tonnes, in 2013 it was 50657.6 tonnes, in 2014 it was 49503.9 tonnes, in 2015 it was 60958 tonnes, in 2016 it was 62736 tonnes, 3 tonnes, and in 2017 it was 65571 tonnes.

Finally, the total recoverable WEEE management is 59400 tonnes. This data shows that the material recovery is 22118,1 tonnes, the pre-treatment and storage for recovery are 37024,1 tonnes, the disposal treatments are 113,31 tonnes and the pre-treatment and storage for disposal are 82,9 tonnes.

3.2. Meeting with Italian Climate Network: The impact of their activities on youth.

During the project, we have met with several people working in different associations that brought us closer to the final objectives of this report: to know and understand which associations are active today in Italy and specifically in Piedmont in the field of waste, to explore the impact of their activities is regarding new generations and to recognise their current challenges that they face.

Italian Climate Network⁵⁸ (ICN) is an Italian non-profit organisation that was founded in 2011 in Rome and one of its aims is to sensitise new generations on climate change through actions and initiatives that address the climate crisis and ensure a more sustainable future for Italy. Moreover, ICN is also highly active in the field of advocacy: it works constantly to promote climate change and environmental protection also in the public debate, calling for an increasingly central role of young people advocating for these issues on the national political agenda.

ICN projects and activities are divided into four permanent thematic sections: climate and advocacy, climate and human rights, climate and youth, and climate and health. For the purpose of this report, we will focus on the climate and youth section.

This branch has the main task of involving young people under 30 in many activities whose objectives are strongly connected with those of the non-profit organisation.

In particular, one of the initiatives proposed in 2014 was the *Youth Think Thank on Intergenerational Equity*⁵⁹. Intergenerational equity is the principle according to which the planet must be handed over to future generations in conditions no worse than those in which we inherited it: this translates into the right of future generations to benefit from the same kind of ecological resources and services as present generations.

This initiative not only contributed to the production of guidelines for policy makers with extreme concreteness, but it supported, above all, the education of the civil society and the new generations regarding these issues.

⁵⁸ <https://www.italiaclima.org/en/about-us/>.

⁵⁹ <https://www.italiaclima.org/archivio/>.

In fact, this project resulted in the creation of a working group composed of young people (associations and individuals), working at a professional and academic level in the areas of environment, economics, law, youth policies, health or related areas. At the end of this initiative, this group concluded a document called "*Italian Youth Declaration on Intergenerational Equity*", transmitted to the YOUNGO⁶⁰ working group on intergenerational equity, and submitted to the attention of the negotiators during the COP20 in Lima and the COP21 in Paris.

In recent years, ICN saw a major attention from the Italian Ministry of the Environment to young people related, in particular, to environmental issues.

This fact drove ICN to create an increasingly close link between the involvement of new generations and the initiatives proposed.

In this regard, the presence of the Italian Climate Network at the COP26 was very important for the involvement of future generations: using videos, posts on social media, interviews of the participants and daily reports, ICN raised awareness and informed its community what was actually happening in Glasgow where the organisation also organised a side event.

3.3. Meeting with UnitoGo: An example of academic youth in action.

Nowadays, the University of Turin is considered at the forefront of innovation and sustainability: since 2016, in fact, it no longer consumes energy from fossil sources for its supply of electricity, but it is able to meet the demand for energy with energy produced from renewable sources. Moreover, it was one of the first Italian universities to introduce a Green Office to act and raise awareness on climate change and environmental issues.

UnitoGo⁶¹ is the Green Office of the University of Turin and, thanks to its research and experimentation, it is a milestone for the whole Piedmont region.

The Green Office was established in 2016 from an idea of the former Chancellor Professor Ajani with the purpose of creating a coordination structure and project related to the environmental sustainability policies of the University of Turin.

Over the years, it has become an extremely active office and a reference point for comparison on reducing environmental impacts in universities.

In achieving this goal, the Green Office uses a complex network of internal and external relations.

Internal relations allow to define the strategic objectives in terms of concrete actions and tools, to enhance the skills of the teaching staff and administrative technicians interested in coordinating activities between the various working groups, to trigger the relationship between research and administration activities and to involve the student population.

On the other hand, the external relations network allows to accredit the University of Torino as sustainable, increasing its visibility not only at a national level, but also at an international one, and facilitating networking between sustainable universities all over the world, while also encouraging the activation of partnerships with local authorities and public utilities.

The Green Office operates through thematic working groups on waste, green public purchases, food, energy and mobility. These groups not only involve research staff, but also students, as evidence of youth involvement in their activities.

⁶⁰ YOUNGO is the official children and youth constituency of the United Nations Framework Convention on Climate Change (UNFCCC). It is a vibrant, global network of children and youth activists (up to 35 years) as well as youth NGOs, who contribute to shaping the intergovernmental climate change policies and strive to empower youth to formally bring their voices to the UNFCCC processes.

⁶¹ <http://www.green.unito.it/#:~:text=UniToGO%20%C3%A8%20la%20nuova%20struttura,di%20sostenibilit%C3%A0%20ambientale%20per%20Unito>.

The motto that guides the working group on waste is "*nothing is created, nothing is destroyed, everything is transformed*".

Their initiatives follow a precise path: *know*, *engage* and *change*, in order to build a shared database, but also to enhance internal and external networking and implement concrete actions to reduce environmental impacts.

Know means building a shared knowledge of initiatives, good practices and experiences on the issues of environmental sustainability, with the involvement of students for theses, internships and workshops.

Engage implies intensification of networking actions in the academic community and between universities and companies, through capillary communication, events and stakeholder engagement activities.

Finally, in order to really *change*, it is necessary to plan and implement interventions and initiatives, according to the principles of rationalisation and reduction of consumption, recycling of materials and optimization of procedures.

Today, the working group on waste is mainly concerned with the strengthening of separate collection and reduction of waste, proposing and defining multiple strategies and actions.

In addition, it is also active in the management of the waste cycle, with great attention to the conscious and more sustainable management of such waste within structures and buildings related to the University of Turin.

Over the years, in order to raise awareness of students and young people in Turin, the Waste Working Group proposed various training initiatives and information campaigns on the proper management of waste, with the aim of increasing the involvement of the academic community.

Among the current initiatives, the *Pivot Action*⁶² has three objectives: *reuse*, *reduce* and *recycle*.

This project, strongly linked to waste management, has the ultimate aim of creating and developing a model of intervention and starting a separate collection in all the locations of the University of Turin.

The first step concerns qualitative and quantitative sampling of waste generation in different locations. With regards to this, the analysis already carried out concerns about 20% of the internal surface of the University and this will allow to implement differentiated management systems calibrated on the different locations, reducing the impact of waste production.

Thanks to this project in 2017, the separate collection system was launched at the Campus Luigi Einaudi (CLE) in Turin, designed in agreement with Amiat, a company that provides soil hygiene, waste collection and disposal services for the city of Turin. Through the construction of an ecological island in the outer area of the University Campus where all the waste produced within the pole is delivered the collection system is now completed. This project represents the pilot case of ecological island in a university campus with the aim of achieving a progressive extension of this methodology all over the Piedmont region.

With the creation of the ecological island at the CLE, on 30 May 2017, the initiative "Separate collection comes to life!" reached its conclusion.

On that occasion, a team of young people, composed of students of CLE, helped install over 450 containers divided into plastic, glass and metals inside the Campus, which are added to the cans for non-recoverable and paper, already present. 134 are the ecological mini islands that will allow the waste produced to flow, more than 100 kg per day net of catering services (canteen and bar) in addition to about 40 kg of paper, in the ecological island outside.

During the inauguration, the work "*EARTH two words on the future*" was also presented by the artists Pietro Spagnoli and Ornella Ricca, which aims to stimulate reflection and comparisons on the problems

⁶² <http://www.green.unito.it/it/RifiutiPivot>.

that threaten our planet and on the hope of saving it. This event was also accompanied by the music of Home Music, a project of the social cooperative Triciclo in which the musicians and participants in the event played instruments made from recycled materials.

In 2018, this project paid off: the separate collection was in fact extended to other locations of Turin University.

Another initiative that ended in 2017 is the *Waste Mob*⁶³.

On 24th May 2017, the University of Turin, the Polytechnic University of Turin and the University Sports Centre of Turin jointly organised a virtuous competition: the *Waste Mob*, a waste collection marathon along the banks of the river Po.

This event was part of the Festival of Sustainable Development, the largest Italian initiative to raise awareness and mobilise citizens, young generations, businesses, associations and institutions on the issues of economic, social and environmental sustainability, spreading the culture of sustainability and achieving a cultural and political change that allows Italy to implement the United Nations Agenda 2030, achieving the 17 Sustainable Development Goals.

In addition, it is also tightly linked to the European campaign *Let's Clean Up Europe*, the European awareness campaign against the abandonment of waste, promoted by SERR (the European Week for Waste Reduction), an initiative created within the LIFE+ Programme of the European Commission, with the primary objective of generating a collective awareness on the reuse and recycling of waste.

The *Waste Mob* took place in teams along two different routes. Some representatives of UnitoGo and of the Green Team (the Green Office of the Polytechnic University of Turin) cheered for the teams directly by the two dragon boats that followed the competition by river.

The event ended with a formative moment to teach people how to differentiate waste in the best way and understand what the most common mistakes are. On a 5 km route, the 150 participants collected 140 kg of waste. The initiative drew attention to the river of the Po, one of the most important green, naturalistic and landscape areas in Turin.

Finally, one of the last initiatives before Covid-19 was *DifferenziamoLo Strano*, organised for the European Week for Waste Reduction.

The project, carried out in cooperation with the staff of the Logistic Services Area of the Poles of Sciences of the Nature and Humanities, the Greensaver student association, the Active Student Representation, the Onlus Emergency Infopoint Torino and Amiat, was dedicated to the extraordinary collection of small Electric and Electronic Waste (WEEE R4), such as batteries, cork and plastic caps, that it is not normally allowable at the University.

Throughout the day, there were moments of information, involvement and training for students, university staff and citizens.

At the end of the day, the waste was weighed and divided according to the type. This action allowed the Green Office to estimate the CO₂ emissions avoided thanks to that activity and to offer a precise figure to highlight the concrete impact of the activity. Around 1439 kg of WEEE R4 were collected and 13 tons of CO₂ were avoided to enter the atmosphere.

This last project perfectly demonstrated the impact of Green Office all over the Piedmont region.

In fact, on that occasion, over 400 people, including citizens, students, teachers, technical and administrative staff of the University of Turin, responded to the call and brought their electrical and electronic waste, making a new life possible also for this particular type of waste.

⁶³ <http://www.green.unito.it/it/LetsCleanUpThePO>.

3.4. The criticalities

Unfortunately, in recent years and in particular from 2020 with the pandemic of Covid-19, problems encountered by the Green Office and the various non-profit organisations active in this field are numerous.

The involvement of the new generations is increasing, and this is undoubtedly a positive fact.

However, the pandemic of Covid-19 caused serious damage to the involvement of new generations that, although they tried to stem with new online initiatives, marked a sticking point for the implementation of events and projects offline.

These past years, the participation and empathy that every event in the cities created between people, disappeared and with it there was a growth of the fear for an uncertain future, especially related to environmental issues.

Finally, the complexity of the issue often leads to many people not dealing with the environment and this creates a greater distance. It is therefore a cultural question that must be tackled with a progressive conversion of the most sceptical, leading them to understand that it is essential to act today for those who will come tomorrow and that unfortunately will not be able to act anymore.

4. The Framework of Italian Environmental Law

4.1. Constitutional Law

The environment as a legally protected interest is of primary and absolute value within the Italian constitution⁶⁴. Even though it is mentioned explicitly only under Title V regarding the partition of power, the environment is qualified as an interest of constitutional significance and protected by various constitutional norms, particularly art. 9 para. 2 (protection of the land) and art. 32 (protection of individual and collective health).⁶⁵

According to constitutional jurisprudence, the protection of the land (art. 9 para. 2) "must be understood in the broad sense of ecological protection" and as an "interest in the conservation of the natural environment".⁶⁶

Moreover, the protection of individual and collective health (art. 32) includes the "protection of the environment in which humans live".⁶⁷

A joint interpretation of articles 9 and 32 of the Italian Constitution establishes the protection of the environment as an absolute and unitary value, thereby including "the conservation, rational management and improvement of natural conditions (air, water, soil and territory in all its components), the existence and the preservation of the terrestrial and marine genetic heritages, of all the animal and plant species that live in it in the natural state and ultimately the human person in all its forms".⁶⁸

As for the protection of young people and their rights, article 31 of the Italian Constitution establishes that "The Republic [...] protects maternity, childhood and youth [...]". The concern for young people and their safety therefore is an aspect of political and legislative decisions. Since the constitutional reform in 2001 (*legge costituzionale* 3/2001), the Regions of Italy have been assigned executive and legislative powers in matters of youth policy – while matters of environmental protection remain within the exclusive legislative competence of the State (art. 117 of the Italian Constitution).⁶⁹

⁶⁴ See *Corte Costituzionale* 1986/151; 1987/641.

⁶⁵ See *Corte Costituzionale* 1986/151; 1987/641.

⁶⁶ See *Corte Costituzionale* 1989/391.

⁶⁷ See *Corte Costituzionale* 1990/127.

⁶⁸ See *Corte Costituzionale* 1987/210.

⁶⁹ See also *Council of Europe, European Union* 2015.

4.2. Material law

Material Italian Environmental Law is governed largely by the *Codice dell'Ambiente* ("Environmental Consolidated Act"/CDA, Legislative Decree No. 152/2006). The CDA is structured in six parts and, following civil law codification tradition, sets out its general principles at the beginning. After a second part on Impact Assessments and Pollution Control permits (*Autorizzazione integrata ambientale*), the act then regulates water resources and soil protection, waste and packaging, contaminated land, and air emissions. More specific areas are governed by additional codes, such as electronic waste in Legislative Decree No. 49/2014 or ambient air quality in Legislative Decree No. 166/2010.

4.3. Enforcement and practice

Environmental regulations are mandatory and enforced through criminal or administrative sanctions based on investigations by the environmental police or supervising administrative bodies.⁷⁰

In Italy, the main national authority on environmental regulation is the "Ministry of Ecological Transition" (*Ministero della Transizione Ecologica*). Of course, the Ministries of Cultural and Landscape Heritage, Health, and Economic Development are also involved within their respective competences. However, following the federalist structure of Italy, the regions, provinces, and metropolitan cities can have some delegated regulative powers.⁷¹

For example, local measures regarding air pollution and emissions gain additional importance when considering that Turin is among the cities with the lowest air quality/highest air pollution in Europe.⁷² Although the situation has improved, the urban area of Turin still exceeds limits in air quality. Measures undertaken by the Piemonte region have therefore proven effective, but still lack both in scope and effectiveness.⁷³

5. Analysis of best practices

5.1. Best practices in WEEE management

As seen by the example of Ecocerved's work, it is worth noting that a profound, detailed and actionable initial data set is the basis for all integrative and policy action. Similarly, consistent data-scientific tracking and evaluation are crucial in optimizing the implemented systems to allow for reaction and adaption to – in our case – the dynamics of the waste sector.⁷⁴

Of course, waste reduction starts with consumer behaviour and therefore on an economical-psychological level.⁷⁵ However, since the impact of regulation on individual behaviour is complex or diffuse at best,⁷⁶ we will focus more on policy-based measures aimed at waste management systems.

Starting from the global scale, a considerable challenge to proper management of WEEE is transboundary movement, banned by the Basel Convention⁷⁷. Many states in especially Europe and Asia still ship WEEE, often disguised as Used EEE to circumvent eventual regulation, to countries ill-equipped to handle their management.⁷⁸ Not unlike the "Polluter-pays-principle" in environmental law (and certainly connected to it), best practice for each region, city or even administrative sector would

⁷⁰ See *Dell'Anno* 2021, pp. 337 ff.

⁷¹ See also *Maschietto* 2021.

⁷² See *ISGlobal* 2021.

⁷³ See *ARPA* 2020, p. 7 ff.

⁷⁴ See also *Shittu et al.* 2021 on the importance of data reporting in WEEE management.

⁷⁵ See for example *Parajuly* 2020 on the non-policy-influenced consumer behaviour aspects of CE.

⁷⁶ See for example *Etienne* 2010.

⁷⁷ Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, 1992.

⁷⁸ *European Commission* 2020, p. 14 f.; *Shittu et al.* 2021; see for example *Odeyingbo et al.* 2016.

therefore be to collect and recycle those WEEE produced or at least disposed of in their respective area.⁷⁹

On the scale of waste management in those areas then, WEEE management starts with collection and segregation. Best practice is to authorize a formal institution with a collection practice that accounts for the varying sources and types of WEEE.⁸⁰

Products might then be reused⁸¹ or supplied into a “closed loop” or “circular economy”-model (CE) of economic waste management.⁸² Considering the ongoing (and increasing?) depletion of primary rare earth metal resources and materials in general, the recovery of secondary materials bound in WEEE becomes increasingly important.⁸³ Within a CE, those materials would be recovered and recycled for the production of new EEE products.⁸⁴ This has also been acknowledged in the European Commission’s “Circular Economy Action Plan”.⁸⁵

Regarding the recycling-process itself, pollution controlling is vital for sustainable WEEE management.⁸⁶ Processes must be up to standard and controlled by third parties.⁸⁷

In this context, the so-called “free-riding” of vendors – especially online traders – that circumvent registration for collection and management of WEEE becomes problematic.⁸⁸ Best practice would be to integrate collection and management of WEEE with vendors or directly with the producers.⁸⁹ The Extended Producer Responsibility (ERP) strategy extends the producer’s responsibility from production to the End of Life (EoL) stage, including especially recycling and disposal.⁹⁰ Since economic incentives are insufficient at best, only a mandatory ERP would effectively “close the widening gap between the generation of e-waste and the recovery of scarce resources”⁹¹.

5.2. Impact mitigation regarding the waste sector

Mitigation in WEEE management relates mainly to disposal methods such as incineration and landfills that significantly contribute to soil, water and air pollution and greenhouse gas emissions in general.⁹² Mitigating emissions from the waste sector means, first and foremost, recycling as much of the WEEE as possible, improving the methods applied therein and extracting as much of the bound REM and potentially hazardous materials as possible, thereby reducing the amount of waste disposed of in landfills or incineration.⁹³ Technologies such as waste-to-energy can further improve the generation of greenhouse gas emissions in both landfills and incineration.⁹⁴

5.3. Best practices in youth participation and protection of future generations

Participation of youth in democratic processes benefits both the young people and the processes and institutions involved.⁹⁵ The central practice in youth participation in government is establishing youth

⁷⁹ *Dri et al.* 2018, pp. 74, 310 ff., 361 ff.

⁸⁰ *Arora* 2008, pp. 4, 11; See *Wath et al.* 2010, p. 29 for an informal approach with formal institutions controlling collectors and recyclers, p. 30.

⁸¹ *Arora* 2008, p. 11 f.

⁸² See for example *Awasthi* 2019.

⁸³ *Malinauskaitė* 2017, p. 2017 f.

⁸⁴ *Bogner et al.* 2008, p. 23; See *Hsu et al.* 2019 for detailed recovery processes.

⁸⁵ *European Commission* 2020, p. 7.

⁸⁶ See *Zeng et al.* 2017, p. 4.

⁸⁷ See *Sivaramanan* 2013, p. 535.

⁸⁸ *Shittu et al.* 2021.

⁸⁹ See also Waste Electrical and Electronic Equipment Directive (WEEE Directive, 2012/19/EU).

⁹⁰ *Wath et al.* 2011, p. 256; see also *OECD* 2016.

⁹¹ *Awasthi* 2019, p. 87.

⁹² See *Umweltbundesamt* 2010, pp. 31 f., 102.

⁹³ *Bogner et al.* 2008, p. 23 ff.

⁹⁴ *Bogner et al.* 2008, pp. 12, 27; See *OECD* 2012, p. 56 ff. for effectiveness and achievability estimations.

⁹⁵ *Augsberger et al.* 2017, p. 9; See also *European Commission* 2008, p. 7, mentioning best practices in Italy.

councils with a substantial degree of youth involvement, supervised by “adult allies”.⁹⁶ Diversity within these councils provides the inclusion of a wide range of youth perspectives and attributes, especially regarding the involvement of young people with fewer opportunities.⁹⁷ Within those activities, youth leadership is a relevant part of fostering both the meaningful participation of youth and improving their skillset.⁹⁸ This practice is already being implemented in Italy.⁹⁹

Regarding the protection of the rights of future generations¹⁰⁰, an exemplary “best practice” framework elaborated by *Segger & Rana* 2008 establishes that “to promote the integrity of future generations”¹⁰¹, policymakers should respect the duty to ensure sustainable use of resources and the principles of equity, precaution, public participation, governance, integration, and of common but differentiated obligations.¹⁰²

5.4. Recommendations to EU policymakers based on the results of our research & conclusions

The best practices relevant to our case study and the rights of future generations therefore involve a CE-model of waste management with minimal environmental impact, improving the management of waste that is disposed of in landfills and incineration facilities, establishing diverse and relevant youth institutions like youth councils and respecting the rights of future generations when considering political actions and policies.

To this end, we welcome the actions undertaken by the European Commission on the European Climate Pact and its climate ambassadors, as a way to better involve young people in raising awareness about climate change and its multifaceted impacts and challenges.

Furthermore, we also welcome the “Report on the implementation of the EU Youth Strategy (2019-2021)” delivered by the European Commission last October.

However, many gaps and challenges still exist and need to be addressed. Therefore, a number of recommendations have been drafted.

As demonstrated, the linkages between climate change and its effects on the rights of future generations are undeniable. We therefore call on EU policymakers to further involve the youth both in the design and implementation phase of climate-related policies, in particular regarding those linked to waste management.

For instance, our research work shows that organisations involving young people, such as the Italian Climate Network or the Green Office of the University of Turin, are contributing in the implementation of a number of local policies, not only raising awareness among their network but also trying to reach out to more people. Such organisations should be seen by EU policymakers as key partners in implementation of the EU Youth Strategy, particularly topical since 2022 has been nominated as the European Year of Youth.

The most effective way to protect the rights of future generations is to mitigate the impacts of climate change and slow its progress down.

Furthermore, a participatory approach is very much needed as it is the most democratic and inclusive way to protect the rights of future generations. Not only should EU policymakers take the participation of young people in policy design processes into due consideration, but they should also include the rights of future generations in their legislative work.

⁹⁶ *Augsberger et al.* 2017, p. 11 ff.; *European Commission* 2008, p. 1.

⁹⁷ *Augsberger et al.* 2017, p. 13 f.; *European Commission* 2008, p. 8 ff.

⁹⁸ See *Save the Children* 2016, p. 39 ff.

⁹⁹ *Woodhouse* 2014, p. 359 ff.

¹⁰⁰ See Part A; See especially *Unruh* 2016.

¹⁰¹ *Segger, Rana* 2008, p. 4.

¹⁰² *Segger, Rana* 2008, p. 20 ff.

Bibliography

- Ackermann, Frank 2000. "Waste Management and Climate Change." *Local Environment*, Vol. 5 No. 2: 223-229.
- Agence Europe 2021. „2022 doit être l'Année européenne de la jeunesse, a estimé Mme von der Leyen.“ Accessed Jan. 06, 2021. <https://agenceurope.eu/fr/bulletin/article/12791/9>.
- Alam, Pervez
Ahmade, Kafeel 2013. „Impact of Solid Waste on Health and the Environment.“ *Special Issue of International Journal of Sustainable Development and Green Economics*, 2013: 165-168.
- Amnesty International n.d. "Climate Change". Accessed Dec. 24, 2021. <https://www.amnesty.org/en/what-we-do/climate-change/>.
- Amnuaylojaroen, Teerachai
Parasin, Nichapa 2021. "The Association Between COVID-19, Air Pollution, and Climate Change." *Mini Review*. *Frontiers in Public Health* 9:662499.
- ARPA 2020. *Uno sguardo all'aria 2020*. Torino, Italy: Agenzia Regionale per la Protezione Ambientale (ARPA).
- Augsberger, Astraea et al. 2017. "Best Practices for Youth Engagement in Municipal Government." *National Civic Review*, Vol. 106: 9-16.
- Arora, Rachna 2008. *Best Practices for E-Waste Management in Developing Nations*. Bonn, Germany: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).
- Awasthi, Abhishek Kumar 2019. "Circular economy and electronic waste." *Nature Electronics*, Vol. 2 No. 3: 86-89.
- Barcelona Institute for Global Health 2021. "Ranking of Cities. Air pollution. Turin, Italy." Accessed Dec. 25, 2021. <https://isglobalranking.org/city/turin/#air>.
- BBC 2016. "Italy adopts new law to slash food waste." Accessed Dec. 28, 2021. <https://www.bbc.com/news/world-europe-36965671>.

- Bogner, Jean et al. 2008. "Mitigation of Global Greenhouse Gas Emissions from Waste: Conclusions and Strategies from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report." *Waste Management & Research*, Vol. 26: 11-32.
- Bundesverfassungsgericht 2021. *Order of the First Senate of 24 March 2021 - 1 BvR 2656/18*. Karlsruhe, Germany: Bundesverfassungsgericht.
- Cantoni, Roberto 2016. "The waste crisis in Campania, South Italy: a historical perspective on an epidemiological controversy." *Endeavour*, Vol. 40 No. 2: 102-113.
- Carraro, Carlo
Sgobbi, Alessandra 2008. "Climate change impacts and adaptation strategies in Italy: An economic assessment." *Working Paper* No. 2008, 6. Fondazione Eni Enrico Mattei (FEEM), Milano.
- Center for International
Environmental Law 2015. "Human Rights Impacts of E-Waste." *Working Paper*. Accessed Dec. 24, 2021. https://www.ciel.org/wp-content/uploads/2015/10/HR_EWaste.pdf
- Climate Analytics 2020. "Climate Change in Italy." *Scientific Report*. Accessed Dec. 22, 2021. <https://giudiziouniversale.eu/wp-content/uploads/2021/06/Climate-Impacts-in-Italy.pdf>.
- Climate-ADAPT 2021. "European Climate Adaptation Platform." Accessed Dec. 22, 2021. <https://climate-adapt.eea.europa.eu/countries-regions/countries/italy>.
- Council of Europe
European Union 2015. *Country Sheet on Youth Policy in Italy*. Strasbourg, France: Council of Europe.
- Dell'Anno, Paolo 2021. *Diritto dell'Ambiente*. Milano, Italy: Wolters Kluwer Italia S.r.l.
- Dri, Marco et al. 2018. "Best Environmental Management Practice for the Waste Management Sector." *JRC Science for Policy Report*, EUR 29136 EN, Luxembourg: Publications Office of the European Union.

- Etienne, Julien 2010. *The Impact of Regulatory Policy on Individual Behaviour: A Goal Framing Theory Approach*. London, United Kingdom: Centre for Analysis of Risk and Regulation at the London School of Economics and Political Science.
- European Centre 2016. "Italy's prolonged inability to deal with 'Waste Crisis' in Campania breached Human Rights of 18 People." Accessed Dec. 28, 2021. <http://www.euro-centre.eu/italys-prolonged-inability-deal-waste-crisis-campania-breached-human-rights-18-people-living-working-region/>.
- European Commission 2020. *A new Circular Economy Action Plan (COM [2020] 98 final)*. Brussels, Belgium: European Commission.
- European Commission 2008. *Best Practice in the Youth Field*. Brussels, Belgium: European Commission, Youth Strategy.
- Fazzo et al. 2017. "Hazardous waste and health impact: a systematic review of the scientific literature." *Environmental Health*, Vol. 16: Art. Nr. 107.
- Fondazione CMCC 2020. *Risk Analysis – Climate Change in Italy – Executive Summary*. Lecce, Italy: Centro Euro-Mediterraneo sui Cambiamenti Climatici.
- Galeotti, Marzio
Rosen, Roberto 2012. "Economic Impacts of Climate Change in Italy and the Mediterranean: Updating the Evidence." *Journal of Sustainable Development*, No. 5: 27-41.
- Giuffrida, Angela 2021. "Rome residents told to cut back on Christmas wrapping amid waste crisis." Accessed Dec. 28, 2021. <https://www.theguardian.com/world/2021/dec/10/rome-residents-told-to-cut-back-on-wrapping-paper-amid-waste-crisis>.
- Greenpeace International 2018. "What does climate change have to do with human rights?" Accessed Dec. 24, 2021. <https://www.greenpeace.org/international/story/19885/what-does-climate-change-have-to-do-with-human-rights/>.
- Hanser, Matthew 1990. "Harming Future People." *Philosophy & Public Affairs*, Vol. 19 No. 1: 47-70.

- Heikkinen, Karri 2020. "The Interest Theory of Rights and Rights Attached to Roles." *Aporia*, Vol. 20: 10-18.
- Hoerster, Norbert 1991. *Abtreibung im säkularen Staat. Argumente gegen den § 218*. Frankfurt, Germany: Suhrkamp.
- Hsu, Emily et al. 2019. "Advancements in the treatment and processing of electronic waste with sustainability: a review of metal extraction and recovery technologies." *Green Chemistry*, Vol. 21: 919-936.
- Humanium 2021. "Children of Italy." Accessed Dec. 24, 2021. <https://www.humanium.org/en/europe-caucasus/italy/>.
- Intergovernmental Panel on Climate Change 2007. "Waste Management." In: *Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, edited by Bert Metz et al., 585-618. Cambridge, United Kingdom: Cambridge University Press.
- Malinauskaite, Jurgita et al. 2017. "Municipal solid waste management and waste-to-energy in the context of a circular economy and energy recycling in Europe." *Energy*, Vol. 141: 2013-2044.
- Maschietto, Eva 2021. "Environmental Law and Practice in Italy: Overview." Accessed Dec. 25, 2021. [https://uk.practicallaw.thomsonreuters.com/1-503-2608?transitionType=Default&contextData=\(sc.Default\)&firstPage=true](https://uk.practicallaw.thomsonreuters.com/1-503-2608?transitionType=Default&contextData=(sc.Default)&firstPage=true).
- McMichael, A. J. et al. 2004. "Global climate change." In: *Comparative quantification of health risks: Global and regional burden of disease due to selected major risk factors*, edited by Majid Ezzati et al., 1543-1649. Geneva, Switzerland: World Health Organization.
- Odeyingbo, Olusegun et al. 2016. *Person in the Port Project*. Africa: United Nations University, US-EPA and BCCC Africa.
- OECD 2016. *Extended Producer Responsibility. Updated Guidance for Efficient Waste Management*. Paris, France: Organisation for Economic Co-Operation and Development.

- OECD 2012. *Greenhouse Gas Emissions and the potential for Mitigation from Materials Management within OECD Countries*. Paris, France: Organisation for Economic Co-Operation and Development.
- Parajuly, Keshav et al. 2020. "Behavioral change for the circular economy: A review with focus on T electronic waste management in the EU." *Resources, Conservation & Recycling: X*, Vol. 6: 1-9.
- Parfit, Derek 1984. "The Non-Identity Problem." In: *Reasons and Persons*, 351-380. Oxford, United Kingdom: Oxford University Press.
- Partridge, Ernest 1990. "On the Rights of Future People." In: *Upstream/Downstream. Issues in Environmental Ethics*, edited by Donald Scherer, 40-66. Philadelphia: Temple University.
- Sanson, Ann V.
Burke, Susie E. L. 2020. "Climate Change and Children: An Issue of Intergenerational Justice." In: *Children and Peace. From Research to Action*, edited by Daniel J. Christie & Nikola Balvin, 343-362. Cham, Switzerland: Springer Nature Switzerland AG.
- Save the Children 2016. *A youth participation best practice toolkit. Part 1*. London, United Kingdom: Save the Children.
- Segger, Marie-Claire Cordonier
Rana, Rajaz 2008. "Selecting Best Policices and Law for Future Generations." *Legal Working Paper*, Canada: Centre for International Sustainable Development Law.
- Shittu, Olanrewaju S. et al. 2021. "Global E-waste management: Can WEEE make a difference? A review of e-waste trends, legislation, contemporary issues and future challenges." *Waste Management*, Vol. 120 No. 1: 549-563.
- Sivaramanan, Sivakumaran 2013. "E-Waste Management, Disposal and Its Impacts on the Environment." *Universal Journal of Environmental Research and Technology*, Vol. 3 Issue 5: 531-537.

- Tremmel, Joerg C. 2006. "Establishing intergenerational justice in national Constitutions." In: *Handbook of Intergenerational Justice*, edited by Joerg Chet Tremmel, 187-214. Cheltenham, United Kingdom: Edward Elgar Publishing Ltd.
- Umweltbundesamt 2010. *Climate Protection Potential in the Waste Management Sector*. Dessau-Roßlau, Germany: Umweltbundesamt.
- UNICEF 2021. "Youth for climate action." Accessed Dec. 24, 2021. <https://www.unicef.org/environment-and-climate-change/youth-action>.
- United Nations 2018. Document A/73/188: "Note by the Secretary-General. Human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment." New York, United State: United Nations.
- United Nations 2010. Document A/RES/64/292: "Resolution 64/292. The human right to water and sanitation." New York, United States: United Nations.
- United Nations Environment Programme 2021a. *Human Rights and Hazardous Substances. Key messages*. Nairobi, Kenya: United Nations Environment Programme (UNEP).
- United Nations Environment Programme 2021b. *Why does environment, health and pollution matter?* Accessed Dec. 25, 2021. <https://www.unep.org/explore-topics/chemicals-waste/what-we-do/environment-health-and-pollution/why-does-environment>.
- United Nations Environment Programme 2015. *Climate Change and Human Rights*. Nairobi, Kenya: United Nations Environment Programme (UNEP).
- United Nations Environment Programme 2010. *Waste and Climate Change. Global Trends and Strategy Framework*. Nairobi, Kenya: United Nations Environment Programme (UNEP).
- United Nations Human Rights Council 2021. Document A/HRC/RES/48/13: "Resolution 48/13. The human right to a clean, healthy and sustainable environment."

- United Nations
Human Rights Council
2017. Document A/HRC/36/41: “Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes.”
- United Nations
Office of the High Commissioner
for Human Rights
- 2015a. “COP21: ‘States’ human rights obligations encompass climate change’ – UN expert.” Accessed Dec. 24, 2021. <https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?Newsid=16836&Langid=E>.
- United Nations
Office of the High Commissioner
for Human Rights
- 2015b. „Understanding Human Rights and Climate Change.” *Submission of the OHCHR to COP21*. Accessed Dec. 24, 2021. <https://www.ohchr.org/Documents/Issues/ClimateChange/COP21.pdf>.
- Unruh, Charlotte
2016. „Present Rights of Future Generations.” *Kriterion – Journal of Philosophy*, Vol. 30 Issue 3: 77–92.
- Wath, Sushant B. et al.
2011. “E-waste scenario in India, its management and implications.” *Environmental Monitoring and Assessment*, Vol. 172: 249-262.
- Woodhouse, Barbara B.
2014. “Listening to Children: Participation Rights of Minors in Italy and the United States.” *Journal of Social Welfare and Family Law*, vol. 36 no. 4: 358–369.
- Woollard, Fiona
2012. “Have We Solved the Non-Identity Problem?” *Ethical Theory and Moral Practice*, Vol.15: 677–690.
- World Bank Group
- n.d. “Climate Change Knowledge Portal.” Accessed Dec. 22, 2021. <https://climateknowledgeportal.worldbank.org/country/italy>.
- World Health Organization
2007. *Environment and health risks from climate change and variability in Italy*. Denmark: WHO Regional Office for Europe.
- Wu, Changhua
Wang, Simon
2002. „Environment, Development and Human Rights in China: A Case Study of Foreign Waste Dumping.” In: *Human Rights and the Environment. Conflicts and Norms in a Globalizing World*, edited by Lyuba Zarsky, 198-218. London, United Kingdom: Earthscan Publications Ltd.

Zeng, Xianlai et al.

2017. "Innovating e-waste management: From macroscopic to microscopic scales." *Science of the Total Environment*, Vol. 575: 1-5.



**TRANSNATIONAL
YOUTH
FORUM**
2022

ADVANCING CHILDREN'S RIGHTS
FOR INCLUSIVE ACTION ON CLIMATE CHANGE

UNITED KINGDOM

RINOVA
innovate, create & regenerate

THE ENVIRONMENTAL AND SOCIAL ISSUES LINKED TO FAST FASHION

SUPERVISORS: AMANDA FRANCIS, REBECCA GLYN JONES
PARTICIPANTS: AURORA GRIFFIN, ELLIE BRIGGS, EMILY
THOMSIT, JASMIN SONUBI, LUCAS SAUNDERS-AROMA,
RHIANNA FRANCIS

Contents

1. Introduction
2. What is fast fashion?
3. Impact on the climate
4. Impact on human rights
5. The Situation in the UK
6. Do We Care?
7. Conclusions So Far

Bibliography

1. Introduction

As part of the 2022 Transnational Youth Forum Rinova UK held a workshop with a group of young people aged 14/15 to highlight a number of issues linked to both climate change and human rights. From this initial meeting we (Rinova and the young people) all discussed the various issues and decided that for the forum we wanted to focus our attentions on researching and then making a short video about issues linked to fast fashion. The area interests us all, we recognise that it is a growing problem and that it is one that impacts young people, major consumers of fast fashion, disproportionately. We also recognised that it is an issue that we, as consumers, have a lot of potential power over and are keen to disseminate the video as widely as possible in UK schools once completed.

To support our research the following have taken place:

On the 24th of November 2021 Rinova organised a national workshop which was delivered in collaboration with the Farraday Institute of Science and Religion, a Cambridge University based interdisciplinary research institute improving public understanding of science and religion. Working with a PHD graduate from the University of Cambridge YTF participants developed a Life Cycle Analysis as it relates to the Fast Fashion Industry, discussing key points at each Life Stage and deep diving into each stage to assess its environmental impact.

The Farraday Institute was selected for the national workshop based on its profile as one of the outstanding research organisations in the UK, with a strong focus on environmental issues and sustainability. It brings together research scientists and industry partners on projects with commercial potential to impact positively on environmental matters and climate change in particular. Founded in 2006 (as part of St Edmund's College) since 2018 it has been an independent charitable organisation and an Associate Member of the Cambridge Theological Federation.

A second workshop was delivered in November 2021 when young people taking part in the project presented some of their research to the governing body of the Swale Academy. One of the South East's leading Multi-Academy Trusts, Swale comprises of 17 schools. The Board of Governors is made up of senior teachers, parents, local business representatives, representatives from the local authority and key stakeholders from the local community, with the Trust Principal, Jon Whitcombe, being a National Leader of Education. The trust's purpose is to develop good and outstanding schools and ensure the rapid improvement of schools with challenges. To support their research, during the summer and autumn of 2021 we also carried out 1-2-1 interviews and devised an on-line questionnaire aimed at finding out more about peoples shopping habits, understanding of the impact of fast fashion and individual shopping habits. The results of these questionnaires and, in general, the research process led to the production of a final video available at https://www.dropbox.com/s/y60ry8hxez2x89d/TYF_Video_Final04-MidRate.mp4?dl=0.

2. What is fast fashion?

'One in three young women, the biggest segment of consumers, consider garments worn once or twice to be old' (The Guardian 2019)

'The average American throws away around 81 pounds of clothing yearly' (Saturday Evening Post 2018)

'It is estimated that around the world 14.5 billion pairs of shoes were purchased in 2016' (Common Objective 2018)

'Research by the Hubbub Foundation suggested that 17% of young people questioned said they wouldn't wear an outfit again if it had been on Instagram' (publication.parliament.uk)

We used to buy clothes occasionally, perhaps for a special occasion, when we outgrew something or it wore out or as a treat a few times a year. But about 20 years ago this changed, and as clothes became cheaper, clothes shopping became more of a hobby, the shopping itself becoming as important as the new item of clothing.

Fast fashion has evolved to meet this new hobby of 'shopping for clothes'. To meet consumer demand it makes clothes as cheaply as possible (using the cheapest fabrics and labour), as quickly as possible. It takes ideas from celebrity culture and the catwalk ie styles that are in the media and consequently in demand, and gets them on to the high street as quickly as possible. The objective is to get these newest styles onto the market as fast as possible so that shoppers will buy them up whilst they are still popular with the trend setters. This then becomes a very fast cycle – celebrities and designers wanting to be ahead of the mass market, so quickly coming out with something else, and then the mass market rushing to catch up. Of course, it means that people buy many more clothes than they need or can wear, and also that things go 'out of fashion' very quickly, and so clothes start to be discarded after only having been worn a few times. This kind of fashion culture then plays into the idea that you have made a mistake if you wear something out of trend or wear it more than a couple of times. For young people particularly, who often have a strong need to fit in, but also for the rest of the population, this can have a huge impact so that we get hooked on buying more and more clothes.

Fast fashion is a relatively new phenomenon. Before the 1800s fashion and making clothes was a slow process. You first had to find your materials (maybe wool from your sheep or leather from animals), then prepare them eg weave the wool, and then make the clothes. In the industrial revolution, new technology like the sewing machine, made clothes quicker and cheaper to make. Dress making shops appeared for the middle classes. They often used garment workers who worked from home or small sweatshops or factories to make the clothes. Decades on, as clothing became more and more of a form of personal expression, most of us were buying clothes on the high street that had been made in factories, whilst high fashion for the rich was individually designed and made. Until the middle of the twentieth century, the high-end fashion industry put out clothes four times a year, their 'seasons' – winter, spring and summer. From the 1960s onwards, on the high-street, low-cost fashion grew and grew and at the beginning of this century fast fashion retailers took over the high street reproducing fashion house designs quickly and cheaply.

So now clothes are produced en masse using cheap labour and less quality materials. Low production costs and clothes being sold cheaper means people buy much more in a shorter period of time. Fashion trends change quickly and on top of this, low quality garments don't last so long. Clothes are discarded faster. This cycle is going into overdrive where people on average bought 60% more clothes in 2014 than in 2000, keeping these garments for half the time. (businessinsider.com)

So a large part of fast fashion is both the over production and over consumption of clothing. This makes it a massive industry. According to consultants McKinsey the global apparel, fashion and luxury industry was the most profitable industry between 2003-2013, out-performing even high growth sectors like technology and telecommunications. (publication.parliament.uk 2019).

The garment industry is reportedly the world's third biggest manufacturing industry after automotive and technology industries. Our consumption creates jobs and growth in developing nations. It also leaves them with the bulk of the environmental and social costs.

3. Impact on the climate

‘Clothing production is the third biggest manufacturing industry after the automotive and technology industries. Textile production contributes more to climate change than international aviation and shipping combined’ (House of Common Environmental Audit Committee, 2019)

‘The fashion industry is responsible for 8% of carbon emissions’ (UN Environment, 2019)

‘The textile sector still represents 10 to 20 percent of pesticide use’ (The State of Fashion, McKinsey, 2020)

‘Up to 20,000 litres of water are needed to produce just 1kg of cotton.’ (sustainyourstyle.org)

The fashion industry is the second largest polluter in the world just after the oil industry. And the environmental damage is increasing as the industry grows.

untreated toxic wastewaters (containing lead, mercury and arsenic) from textiles factories are dumped directly into rivers. This is very harmful to the aquatic life and the health of millions of people living by those river banks.

Fertilizers for cotton production, heavily pollutes runoff waters and evaporation waters.

The fashion industry is a major water consumer. Huge quantity of freshwater is used for the dyeing and finishing process for all of our clothes. Cotton needs a lot of water to grow.

- Every time we wash a synthetic garment (polyester, nylon etc), about 700.000 individual microfibers are released into the water, making their way into our oceans. These then find their way into fish and the food chain.
- Wearing synthetic fibres is releasing plastic microfibers into the air. A study by the University of Plymouth said that one person “could release almost 300 million polyester microfibrils per year to the environment by washing their clothes, and more than 900 million to the air by simply wearing the garments”.
- Synthetic fibres, such as polyester, are plastic, therefore non-biodegradable and can take up to 200 years to decompose in landfill. Synthetic fibres are used in 72% of our clothing.
- Energy used during production, manufacturing and transportation of the millions of garments purchased each year generates huge amounts of greenhouse gases
- Synthetic fibres used in most of our clothes are made from fossil fuel and most of our clothes are produced in countries that are mainly powered by coal, the dirtiest type of energy in term of carbon emissions.

4. Impact on human rights

‘Over 90% of workers in the global garment industry have no possibility to negotiate their wages and conditions, according to the global trade union IndustriALL’ (publications.parliament.uk)

‘93% of brands surveyed by the Fashion Checker aren’t paying garment workers a living wage’ (Fashion Checker, 2020)

‘the European Parliament is using the term “slave labour” to describe the current working conditions of garment workers in Asia’ (sustain your style.org)

Making clothes is one of the world's biggest and most labour-intensive manufacturing industries, with estimates of those directly employed ranging from 25 to 60 million people. From the 1980s onwards most fashion retailers in the West having been sourcing their clothes from countries with the lowest labour costs. Part of this happened because of the massive fall in transportation costs from one part of the globe to another between the late 1950s and 2000s when shipping containers revolutionised the way goods could move around the world. Most of the garments sold in the UK are produced in Asia.

Although fashion supply chains provide a source of jobs and GDP growth for people in poorer countries, poor wages and conditions are standard in the global garment supply chains. Temporary contracts, agency work and sub-contracting is the norm and there is very little unionisation or collective bargaining in the industry.

Most of the workers (in the fields and factories) are women who make far less than a living wage, have very poor working conditions and work long hours up to six or seven days a week (often well beyond legal limits). Many are unable to continue working beyond their 30s because of physical 'burn out'.

Common issues within the countries and companies that manufacture garments include:

- The minimum wage usually represents between half to a fifth of the living wage (the bare minimum that a family requires to fulfil its basic needs). Most garment workers are on the minimum wage.
- Because of lack of legislation around workers' rights, they are often forced to work incredibly long days. During the peak season, to meet fashion companies' deadlines they work 14 to 16 hours a day, 7 days a week. Basic wages are so low that they cannot refuse this overtime and are often threatened with dismissal if they do.
- Lack of health and safety legislation means that workers usually work with no ventilation, breathing in toxic substances and inhaling fibre dust in unsafe buildings. Accidents, fires, injuries and disease are very frequent occurrences.
- Because the industry requires low-skilled labour, child labour is very common.
- Forced labour is also an issue within the industry.

2.1. Examples of the above include:

- In South India young girls from poor families are sent to work in a textile factory for three or five years in exchange for a basic wage and a lump sum payment at the end to pay for their dowry. They are overworked and live in appalling conditions that can be classified as modern slavery.
- In April 2013 the Rana Plaza building in Bangladesh collapsed. The building housed five garment factories and 1,138 people died and another 2,500 were injured, making it one of the largest industrial disasters in history. The victims were mostly young women. An accord on building safety was set up in the aftermath of this disaster but the majority of clothing factories in Bangladesh are behind schedule in implementing the safety measures.
- In early January 2019 in Bangladesh there were widespread protests by garment workers over low wages, demanding an increase in the minimum wage. Some protests were met with force by the authorities. After one violent clash, where police used rubber bullets, tear gas and water cannons, one person was killed and 50 others injured. Over 12 000 of those who protested were then dismissed by their employers for their involvement in the protests. Whilst workers say that their wages do not cover the cost of living, factory owners argue they cannot afford to pay increased wages because of what they are paid for garments by the large fashion chains in the West.

- A report by the Worker Rights Consortium, a human rights group, found that the fallout from the pandemic has led to garment workers across the world facing deprivation and widespread food shortages. As the pandemic hit, factories closed after foreign buyers pulled their business and thousands of workers lost their jobs. In Bangladesh garment workers protested, demanding they be paid months of outstanding wages and pension contributions.

5. The Situation in the UK

'Consumption of new clothing is estimated to be higher in the UK than any other European country' (publications.parliament.uk)

'It has been estimated that 1,130,000 tonnes of clothing was purchased in the UK in 2016, an increase of almost 200,000 tonnes since 2012' (publications.parliament.uk)

'A one pence levy on garments produced for sale in the UK could raise around £35 million for investment in clothing collection points, sorting and recycling' (goodonyou.eco)

We buy more clothes per person in the UK than any country in Europe. The fashion industry was worth £32 billion to the UK economy in 2017.² This was an increase of 5.4% on 2016; a growth rate 1.6% higher than the rest of the economy.³ In 2019 the industry employed 890,000 people in the UK in retail, manufacturing, brands and fashion design businesses

Both human rights and climate change issues are present within the UK's fast fashion industry.

- Around 300,000 tonnes of used clothes are burned or buried in landfill in the UK each year.
- A 2016 report into Corporate Leadership on Modern Slavery found that of 71 leading retailers in the UK, 77% believed there was a likelihood of modern slavery occurring at some stage in their supply chains
- Written evidence from HMRC shows that UK-based garment factory owners have been forced to pay out almost £90,000 to employees for non-payment of minimum wage
- Leicester has the second highest concentration of textile manufacturers in the country with 700 factories employing 10,000 textile workers. A study by the University of Leicester in 2015, commissioned by the Ethical Trading Initiative, concluded the majority of the city's garment workers were paid below the National Minimum Wage, do not have employment contracts, and are subject to intense and arbitrary work practices. Workers' rights issues included excessive working hours, night shift subcontracting and poor health and safety conditions in the workplace. Leicester has also been identified as a hotspot for human trafficking by the Stop the Traffick coalition's Centre for Intelligence-Led Prevention (CfILP).

During covid lockdowns the UK's addiction to fast fashion grew massively because of online shopping. Search engine queries for 'cheap clothes' increased by 46.3% between March and June 2020 (Retail Times 2020). England accounted for most of the increase, with London accounting for the majority of searches for 'free trial' and the North West having the majority of searches for offers and deals including including 'clothes sale', 'sales', 'buy now pay later', and 'discount clothes'.

At the same time evidence emerged that conditions in factories producing clothes in the Midlands were putting workers at risk of COVID-19 infections and fatalities, with some factories staying open illegally during the

lockdowns and workers pressured to work with little to no social distancing or provision of PPE. Reports also claimed that workers who had tested positive for COVID-19, were told to continue working in factories and were prevented from disclosing their infection to others.

There has long been a push for the UK government to legislate and more closely monitor both human rights and environmental issues linked to the fashion industry. However, new research published in July 2021 commissioned by The Hubbub Foundation was not positive, claiming that the UK Government has ‘failed to tackle fast fashion’

The research found that whilst for obesity, the government has proposed 689 policies in England to date, for fast fashion it has only proposed 19 policies, despite the fast fashion industry being the second largest user and polluter of water globally and one of the largest contributors to modern slavery. On top of this, the research concluded that the majority of the policies were proposed in a way that was ‘unlikely to lead to implementation’.

- Only 32% of the policies proposed actively sought to address the issue of fast fashion, rather than just increasing awareness and they were largely introduced in broad strategies aimed at tackling the waste issue rather than directly tackling fast fashion.
- Of the policies directly aimed at fast fashion, there were no strong incentives, regulations or legislation to encourage or force change, but rather were about providing voluntary guidance and standards.
- All of the policies have been proposed by the Department for Environment, Food and Rural Affairs (Defra) – a department that is not ‘technically responsible for fashion’, which falls under the Department for Culture, Media and Sport, and with no cross-departmental work undertaken.
- The research also found that the Government rejected all of the Environmental Audit Committee’s recommendations, including a producer responsibility and due diligence checks.

Although the Government did introduce the Modern Slavery Act in 2015, the Department for Business, Energy and Industrial Strategy has recently ‘refused’ to commit to clear timeframes and actions on strengthening the Act, the research states.

Defra has announced plans for a new Waste Prevention Programme that will aim to address the negative environmental impacts of the textiles sector and fast fashion including an Extended Producer Responsibility, but this will not be consulted on until 2022.

6. Do We Care?

On the project, as well as delving into the problems caused by fast fashion, we have been researching consumer attitudes to buying clothes. We have been reflecting on and researching what we as consumers can do to address issues of fast fashion, and looking into the available alternatives to mass consumption of cheap clothing. To this end the following have, and will, take place.

They have interviewed Elaine Maffrett from Hilldrop Community Centre, Octopus Communities who, as part of a green initiative to promote slow fashion, are running ‘Relish and Embellish’, workshops exploring the impact

of fast fashion on the environment and teaching make and mend clothing skills to avoid buying new. They are also running a Christmas jumper campaign to encourage participants to transform old jumpers instead of buying new.

They have developed a comprehensive questionnaire probing attitudes to clothes shopping and have had over 80 responses so far. They have also interviewed a number of peers and teachers about their clothes shopping habits. Both of these activities are continuing through to February 2022.

During the latter months of the project, there will be visits to a number of businesses who are able to demonstrate that ethical manufacturing is possible at both ends of the fashion industry – from high end couture fashion to high street brands like ASOS. These include:

Abi-K: Launched in 2011, Abi-K is a luxury accessories label created by Abigail Keefe. She designs unique handbags, accessories and jewellery, beautifully crafted in limited editions and made from vintage Japanese kimono obi silk. All products are made from recycled, vintage clothing and sustainability is at the heart of Abi-K's operations. Work is carried out largely on site, by a small local team and additional materials needed are sourced locally and from ethical manufacturers.

Based in Brighton, England, UK, Abi-K designs all her products from her boutique. She cuts the silk herself to determine the layout of the pattern on each item. Where accessories such as handbags need the skills of additional craftsmen, collections are manufactured in small batches by an expert workshop in London and pieces are delivered in person in small batches to avoid using couriers. Each piece is unique, individually crafted with a commitment to being lovingly made in Britain.

Abi-K will be hosting an interview and workshop with the TYF participants, to introduce them to her workshop and explain her approach and ethos. Abi-K believes that sustainability and high end 'couture' fashion can go hand in hand and her very individual approach will form part of a case study on environmentally friendly high-end fashion.

Fashion Enter: Fashion-Enter Ltd (FEL) is an award-winning social enterprise which is a centre of ethical garment manufacturing with head-quarters in London and branches in the South East and Leicester. They manufacture for well-known brands and on line retailers like Simply B, I Saw it First and ASOS. Fashion Enter is a not for profit, social enterprise, which strives to be a centre of excellence for sampling, grading, production and for learning and development of skills within the fashion and textiles industry, whilst combining this with a commitment to sustainability, circular economy and local business support – including programmes like FC Designer collective (August 2020), which supports local brands.

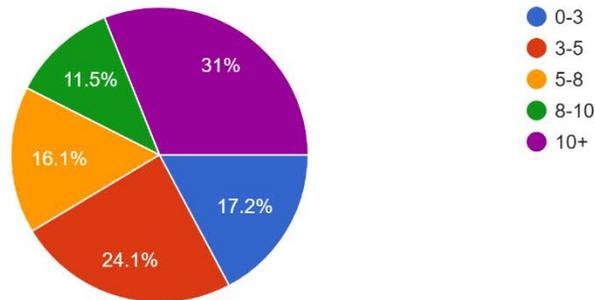
In early 2022 TYF participants will visit Fashion Enter to interview founder Jenny Holloway and to find out how it is possible for fast fashion to remain affordable whilst still addressing the issues of impact on the environment and ultimately on climate change and human rights.

7. Conclusions So Far

As of December 21 the results of the questionnaire are as follows:

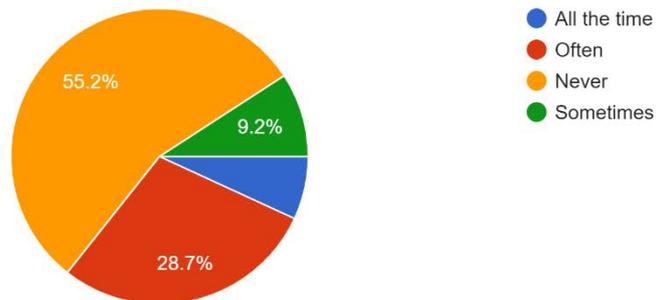
How many times a year do you buy new clothes?

87 responses



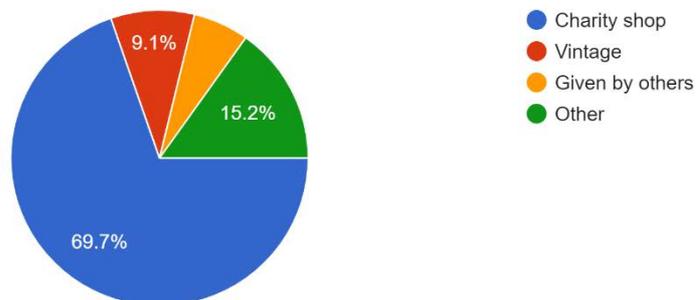
How often do you buy second hand clothes/ from charity shops?

87 responses



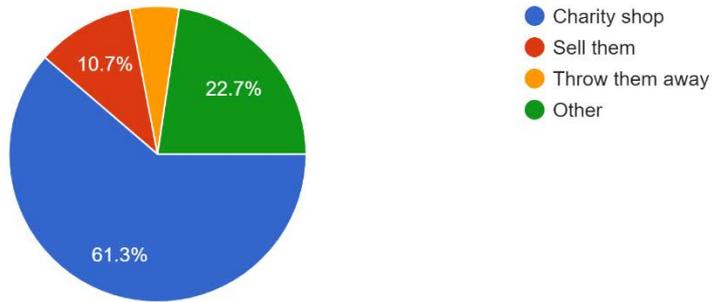
If so where do you buy your second hand clothes from?

33 responses



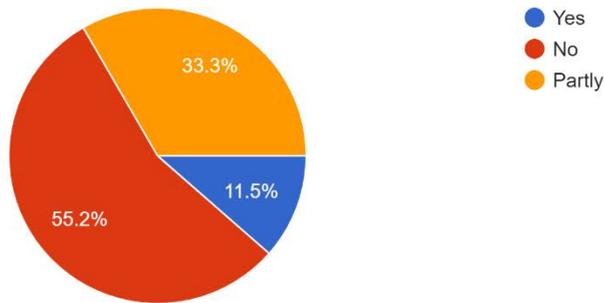
What do you usually do with the clothes you no longer wear?

75 responses



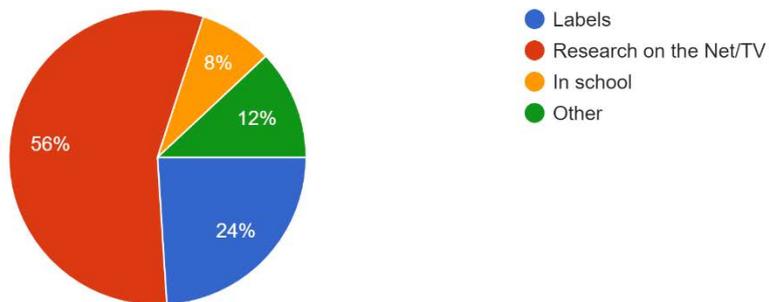
Do you know how the clothes you buy are made?

87 responses



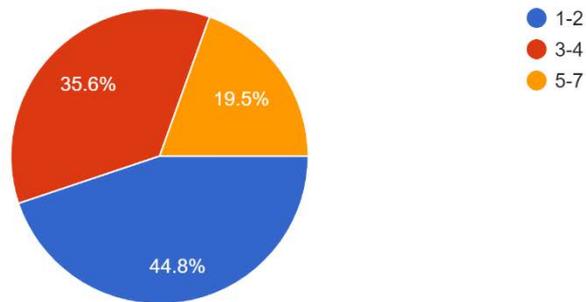
If yes, how did you find out?

25 responses



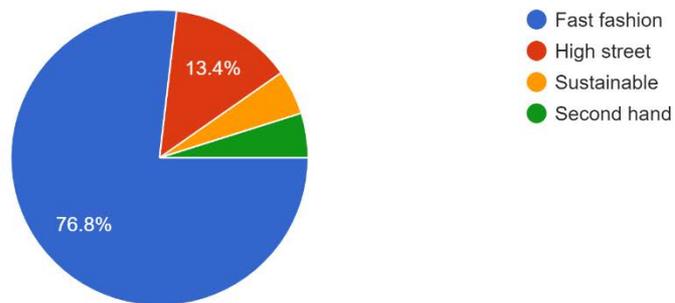
How many times do you wash your clothes using a washing machine a week?

87 responses



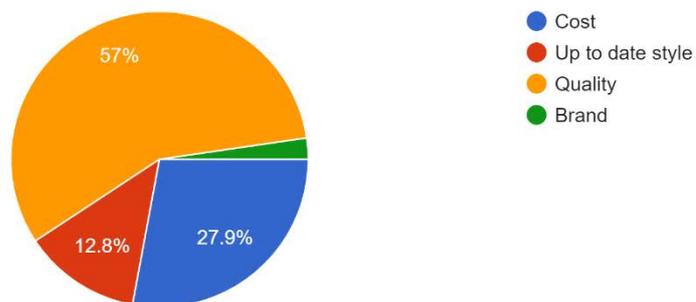
What are your 3 favourite clothing shops?

82 responses



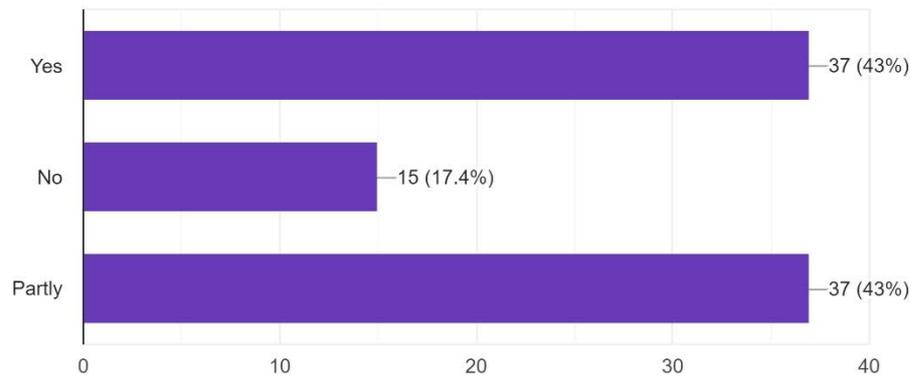
Which of these is most important when shopping for clothes?

86 responses



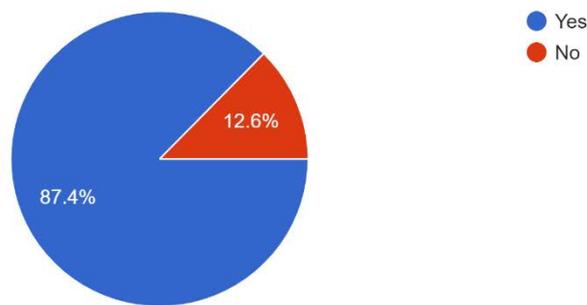
Are you aware of the impact fast-fashion has on the environment

86 responses



Would you consider changing your shopping habits to help the environment?

87 responses



Although buying second hand, and particularly vintage clothes has become much more socially acceptable in recent years, over half of the questionnaire participants never buy second hand clothes. This is then a possible area for development and a follow up study of what would make people more open to considering this would be useful. Positively over 60% said that they give unwanted clothes to charity shops and a very small percentage throw them away.

Very few participants know how and where their clothes are made and of those that do, most of them have found out by online research. More comprehensive labelling of clothes, (in the same way that foods are labelled as for example Fair Trade) could support awareness.

Over 70% of participants shop at fast fashion outlets (whether in-store or online). Since the vast majority of shops / brands now come under this label, this is not surprising and the dual focus of both raising consumer awareness around fast fashion, as well as having easy to find and buy alternatives is crucial to support change in consumer habits. Positively, nearly 90% stated they would change their shopping habits to support the environment and we need not only more information about how they can do this, but also ways to remind them of this intention.

As the impact of climate change and the environmental crisis starts to be felt by more and more people, and particularly now those that have some power and influence to do something about it, we see people reflecting

more on their lifestyles and choices. It is obvious that the impact of mass production and consumption of clothes is having a massive impact on global warming and pollution generally. We as individual consumers are not powerless within this but can do something to support change. With more research in the next 2 months we will focus a section of our up-coming video on the small (and not so small!) actions that we can undertake. A broader picture is to draw our attention to our consumption habits generally and maybe to question why we are so habitually caught up in the buying of goods and what this addiction to shopping is masking or telling us. In the remaining months of the project we will be identifying cases of good practise which will be featured in our end of project video presentation. We will also be identifying ways in which we can carry forward the work of TYF in the form of a Social Impact Project that will continue to address and find solutions to the challenges of environmental impact caused by the fashion industry.

Bibliography

- <https://goodonyou.eco/fast-fashion-facts/>
- https://www.retailtimes.co.uk/fast-fashion-shopping-habits-jump-by-46-during-first-uk-lockdown-study-shows/?mc_cid=5ce9588dc2&mc_eid=fe16f83a44
- www.publications.parliament.uk
- <https://www.circularonline.co.uk/news/government-has-failed-to-tackle-fast-fashion-according-to-new-research/>
- <https://www.sustainyourstyle.org/en/whats-wrong-with-the-fashion-industry#anchor-working-conditions>
- <https://goodonyou.eco/fast-fashion-facts/>



PORTUGAL



CLIMATE CHANGE, GLOBAL CONCERNS AND IMPACT ON THE RIGHTS OF THE FUTURE GENERATIONS

SUPERVISOR: PROF. MIGUEL DE AZEVEDO MOURA
PARTICIPANTS: ANA REPAS, BEATRIZ ALVES, INÊS ALVES,
JOANA SOUSA, MARGARIDA MELEIRO, MARIA INÊS CARDOSO,
MARIANA ANDRÉ, MARIANA COSTA



Contents

1. **Adopted dimensions, methodological approach and activities**
2. **Overview (climate change and human rights)**
 - 2.1. Climate Change in Portugal – recent data
 - 2.2. Duarte Agostinho and others against 33 States (an outstanding judicial proceedings on climate change and human rights)
3. **Analysis**
 - 3.2. Climate change laws and regulations’ enforcement, compliance monitoring and public participation
 - 3.3. The implementation and enforcement of migration laws and regulations in Portugal
4. **Consolidation**
 - 4.2. Identification of best practices (mitigation and adaptation)
 - 4.2.1. Preventive actions
 - 4.2.2. Adaptative Actions

BIBLIOGRAPHY

ANNEX

PRESENTATION OF CASE-STUDIES

Project – “Vamos cuidar do planeta” (Let’s take care of the Planet! – Portugal)

1. Adopted dimensions, methodological approach and activities

For the purpose of this Project, NOVA School of Law Team opted to focus the research activities and inherent outputs on two different dimensions that touch these three macro-subjects: (i) Climate Change, (ii) the Rights of Futures Generations and (iii) Human Rights. It is important to mention upfront that, notwithstanding the fact that both dimensions have a linkage to domestic/national specific matters, there is little linkage between them.

The two different dimensions settled by the NOVA School of Law Team are the following:

- SMART LAND – In this first dimension, the idea was to study how Portugal has been implementing European legislation regarding the protection of the Environment, with special focus on rural areas (rural exodus). In this dimension, the Team focus on different subareas, such as enforcement, public awareness and public participation;
- CLIMATE CHANGE AND EDUCATION – This second dimension is divided in two different subsets. The first one refers to the awareness and education of Climate Change at schools and universities, including the participation of children and young people in the decision-making process of legislative and administrative entities. The second subset relates to the problem and national impact of environmental migrants.

During the beginning of the project in 2021, the Team performed the following activities:

- Organization of the Advanced Studies on the Rights of the Child (NOVA School of Law, 2021-2022);
- Organization of international Conference: Children’s Rights in a Digital Environment
 - (2021);
- Organization of International Conference: the Rights of the Child: new challenges and opportunities (2021).
- Organization of the Webinar: The Convention on the Rights of the Child – a commitment for Portugal (2022);
- Legal, case law and data research;
- Interviews¹:
 - o Marta Pais de Almeida – EstuDAR Association;
 - o João Joanaz de Melo – Founder of GEOTA (national environmental NGO);
 - o Vasco Malta -Head of Office, IOM – International Organization for Migration.
 - o Case Studies: two real situations related to the chosen dimensions were studied (See Annex I).

1 Other civil society organizations were contacted but the Team did not receive any feedback.

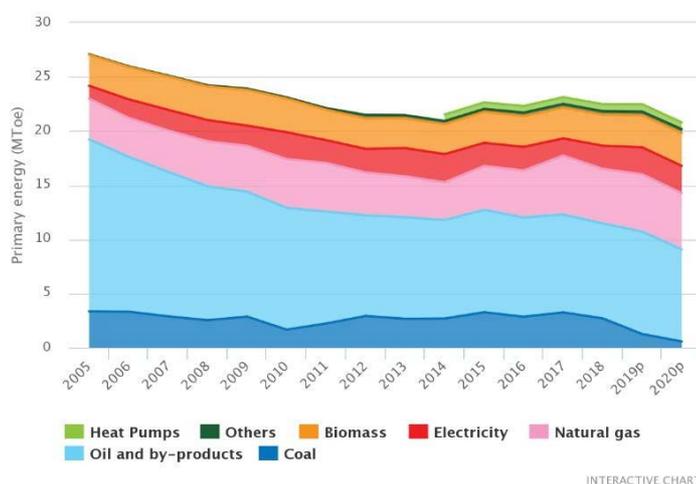
2. Overview (climate change and human rights)

Portugal is a country that has positioned itself at the forefront of the energy transition and environmental protection. Furthermore, and as a result of its history, it has a strong tradition in the effective protection of human rights in several dimensions. Currently, Portugal is going through a transitional period regarding the adoption of policies, laws and regulations on climate change. In addition, it is consolidating even more the domestic legal framework in the field of human rights. These main fields are one of the top priorities for the medium-term national strategy plan.

2.1. Climate Change in Portugal – recent data

Portugal ranks 16th place in Climate Change Performance Index 2022². It has a good performance on climate policies and renewable energy – where it places 12th – and a low rank score in the greenhouse gas emissions category. Pursuant to the objectives and targets set out by the European Union on climate laws' legislation and policies, Portugal should achieve zero carbon emission by 2050, and there is still a long way to walk. Carbon neutrality is not being established in sectoral policies (for example, in agriculture and transport). This affects not only cities and urban areas, but also non-urban places.

Concrete deadlines for phasing out fossil fuel subsidies are still the main difficult achievement. With regard to emissions per capita, Portugal ranks 20th place (excluding forests and land use) and concerning energy use per capita, it ranks 23rd place. The objective in the short-term is to significantly increase those numbers. Notwithstanding, the quota of renewable energy in energy use has been increasing less leading to low rankings in the respective trend indicators (2014-2019).

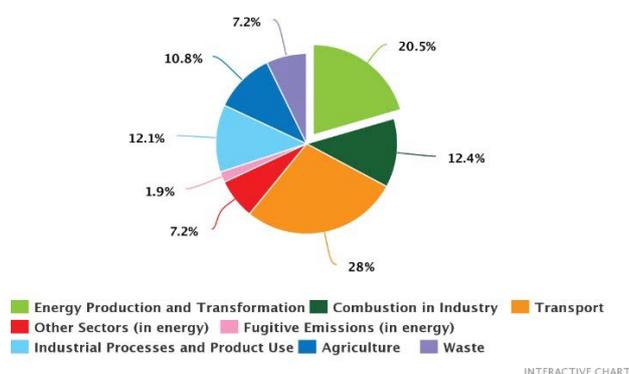


Primary energy consumption by energy source – Portugal. Source: DGEG, 2021

² See <https://ccpi.org/ranking/>.

Green tax measures³ in the areas of renewable energy and transport, energy efficiency and new policies and legislation in the industry and forest sectors are one of the biggest latest achievements. Experts consider that Portuguese efforts on renewable electricity are sufficient. However, they also point out that the Portuguese Government should prioritize new policies and legal frameworks in that field, in particular with regard to decentralised photovoltaics.

Concerning the transport sector, Portugal has been significantly changing its policy, providing some disincentives to the use of private-owned petrol and gas vehicles, and replacing the use of such transports for public transports and/or zero-emissions vehicles. There are several financial incentives for citizens and companies who buy electric cars and bicycles. Besides, households receive public support to increase the energy efficiency of buildings. In any case, lack of accessibility and low number of eligible cases of such programmes should be increased.



Sectorial emissions of carbon dioxide equivalent – Portugal, 2019 ; Source: APA

In 2020/21, there was a decrease of 12% regarding green tax income in comparison with 2019. In addition, there was a reduction of 32,3% of greenhouse gases emissions in comparison with 2005. Energy dependency is now 65,8% (due to the decrease of carbon commodities importations) and 33,9% of the total gross consume of energy came from renewable energy – exceeding the objective of 31% for 2020.

In this context (energy dependency), it is important to mention the effects of Russian/Ukrainian, in particular regarding Russian natural gas imports. In one year (2020), Portugal has more than quintupled its imports of natural gas from Russia. In 2020, DGEG data already show almost 543 million cubic metres of gas bought by Portugal from Russia, that is, a quantity more than five times higher in comparison with 2019 (from 2 to 10%). In 2021, Russia became Portugal's third natural gas supplier, after Nigeria and the USA⁴.

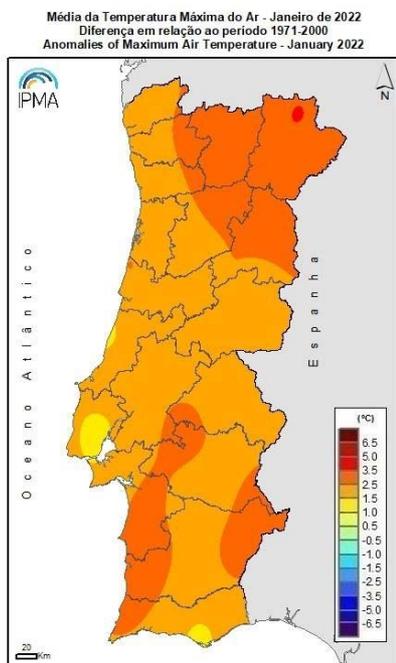
³ For further developments regarding green taxes, see <https://rea.apambiente.pt/content/environmental-taxes?language=en>.

⁴ Portugal's list of natural gas trading partners includes Spain, Nigeria, Qatar, the US, but also the Netherlands, Trinidad and Tobago, Angola, Equatorial Guinea, among others, but has recently been shrinking. In 2021, Portugal only had five suppliers, compared to 11 in 2020 and eight in 2019. Source: <https://eco.sapo.pt/2022/02/15/russia-ja-e-o-terceiro-fornecedor-de-gas-a-portugal-mas-governo-diz-que-e-prematuro-falar-em-dependencia/>.



Energy dependency in Portugal – Source DGEG, 2021

Regarding the quality of air and noise, the Quality Air Index for 2020 classified that year as Good. However, in September 2020 66% of the territory was in a situation of meteorological drought – 43% in September 2021⁵. It is important to mention that in the months of January and February of 2022 the drought is considered severe, and it has already affected agriculture and livestock (see picture below).



Source: IPMA

⁵ See State of the Environment Report – https://sniambgeoviewer.apambiente.pt/GeoDocs/geoportaldocs/rea/REA2020/Infografia_geral_REA_2_020-21_15dez2021.pdf

On 31 December 2021 it was published the Climate Law (Law no. 98/2021) which establishes the most important principles and strategies in Portugal regarding the protection of the environment. One of its main objects is to protect the right of the next generations to a healthy, safe and sustainable environment, at least in the short to medium-term. For instance, this law foresees a ban on the use of quality wood, biomass from energy crops and residual biomass from distant territories for energy production. It is expected that sustainability will really start to improve after full implementation of Climate Law.

2.2. Duarte Agostinho and others against 33 States (an outstanding judicial proceedings on climate change and human rights)

On September 2, 2020, six Portuguese youth started a procedure at the European Court of Human Rights against 33 States (Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Germany, Greece, Denmark, Estonia, Finland, France, Croatia, Hungary, Ireland, Italy, Lithuania, Luxembourg, Latvia, Malta, the Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Norway, Russia, Switzerland, Turkey, Ukraine and the United Kingdom). Pursuant to the complaint, the authors claim that the respondents have violated human rights by failing to take sufficient action on climate change.

They seek an order requiring respondents to take more ambitious and urgent action. It grounds on Articles 2, 8, and 14 of the European Convention on Human Rights, which protect the right to life, right to privacy, and right to not experience discrimination. In accordance with the initial memorial⁶, the right to life is threatened and at stake due to the direct effects of climate change – in Portugal, for instance, due to forest fires. They also argue that the right to privacy includes – inherently to their quality as individuals – physical and mental wellbeing which is more and more jeopardized due to indirect consequences of heatwaves which implies that individuals are not spending more time indoor.

The 33 cited States were properly notified and have already answered. The trial is still going at the European Court of Human Rights and a decision is to be made most likely until the end of 2022.

2.3. Young (environmental) migrants in Portugal

Migrant children accumulate risk factors related to their status as migrant. However, migrant children do not represent a homogeneous group and it should be noted that migrant children may migrate for a variety of reasons, voluntarily or involuntarily, within or between countries, and with or without their parents or other carers. By 2020, the number of international migrants reached 281 million. Of these people, 36 million were children, including

⁶ Available at http://climatecasechart.com/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2020/20200902_3937120_complaint-1.pdf.

some 14 million child refugees and asylum seekers. One in 66 children worldwide lived outside the country of their birth⁷.

Of the nearly 34 million refugees and asylum seekers forcibly displaced from their own countries - half of them were children. In addition, an estimated 23 million children were internally displaced due to conflicts and disasters (including environmental aspects⁸.

From January to December 2020, 62% of all children arriving in Europe were unaccompanied or separated (about 10.300 children)⁹. In 2020, European countries reported that 428.945 new asylum seekers (first-time applicants) applied for international protection. Almost a third of them (134.800) were children, 32% less than in 2019 (198.950). In 2020, asylum seekers considered unaccompanied children submitted 13.550 applications in the EU, 4% less than in 2019 (14,115)¹⁰. Between 2018-2020, more than 18,000 unaccompanied migrant children went missing in Europe¹¹.

In Portugal, in accordance with the national Observatory for Migration¹², migrant children represent 14% of migrant people in Portugal and the 5 most represented nationalities in migrant people (adults and children) in Portugal are Brazil, United Kingdom, Cape Verde, Romania and Ukraine¹³. However, it is not possible to establish an homogeneous profile of migrant children. Children migrate for a variety of reasons, voluntarily or forcibly, within or outside their countries of origin, with or without their parents (or legal representatives). Children have migrated for centuries to escape conflict and persecution; to leave behind destitution and unemployment; for exploitation, to reunite families and to seek a better life.

Examples of reasons may include, inter alia, conflict and war; oppressive governments; climate change; abuse suffered; exploitation; persecution and discrimination; forced marriage and other gender-based violence; child labour; family reunification; economic reasons; education, etc. The role of the family also deserves attention, as family dynamics themselves can be a driving force in the decision to migrate (for example: in situations of violence and abuse, when one of the parents falls ill or passes away, or when there is a great need for remittances). Children also migrate to follow their aspirations for a better life. There is no available disaggregated public data in Portugal with regard to the specific reasons why children migrate.

⁷ UNICEF, 2021: <https://data.unicef.org/topic/child-migration-and-displacement/migration/> and UNICEF UK (2021), "Futures at Risk: Protecting the rights of children on the move in a changing climate", <https://www.unicef.org.uk/futures-at-risk-climate-report>, p. 23.

⁸ UNICEF, 2021: <https://data.unicef.org/topic/child-migration-and-displacement/migration>.

⁹ IOM (2020), "Refugee and Migrant Children in Europe Accompanied, Unaccompanied and Separated Overview of Trends January to December 2020".

¹⁰ IOM, UNHCR, UNICEF (2021), "Refugee and Migrant Children in Europe: Accompanied, Unaccompanied and Separated: Overview of Trends (January - December 2020)", <https://reliefweb.int/report/world/refugee-and-migrant-children-europe-accompanied-unaccompanied-and-separated-overview-5>).

¹¹ See, <https://missingchildreneurope.eu/children-in-migration/>; <https://www.theguardian.com/global-development/2021/apr/21/nearly-17-child-migrants-a-day-vanished-in-europe-since-2018>; <https://datawrapper.dwcdn.net/7Cscs/25/>

¹² See <https://www.om.acm.gov.pt/>.

¹³ See Rita Monteiro, Catarina Reis Oliveira, "Números da Imigração em Portugal", Infografias da Imigração, Observatório das Migrações, Dez 2021, <https://www.om.acm.gov.pt/-/infografia-om-numeros-da-imigracao-em-portugal>.

In any case, a recent study by IOM and UNICEF indicates that: "existing evidence suggests that young people are the most likely to migrate in response to climate-related shocks". This means that it is essential to ensure that responses to these crises must consider the specific risks, barriers and opportunities of children and youth mobility¹⁴.

In 10 August 2021, Portugal has received a group of 21 unaccompanied migrant children from refugee camps in Greece, originally from Afghanistan, Pakistan, Bangladesh, Palestine, Morocco, Iraq, Egypt and Syria. This reception was carried out in Continental Portugal, in particular the North, Centre and Lisbon regions. These children and young migrants were received under the Voluntary Relocation Programme. They were received in Specialised Reception Units on a temporary basis, followed by referral to appropriate responses to their individual expectations and life projects. Recognising the special vulnerability of unaccompanied foreign children and young people, the Portuguese Government responded to the appeal of the Greek government and the European Commission, in March 2020, for the relocation of around 5500 children and young people who were in Greece. With the arrival of this group, there are now 121 children and young people in the country¹⁵.

The integration and reception of refugees has been a priority of the Government, in a continuous effort involving the Central State, local authorities and Civil Society Organisations. This concerted action has been recognised by the United Nations, including the United Nations Migration Agency - the International Organization for Migration -, by the European Union and by the Council of Europe. Under the United Nations High Commissioner for Refugees (UNHCR) Resettlement Programme, our country has already received 797 people from Egypt and Turkey and of different nationalities (from Syria, Iraq, Ethiopia, Sudan, South Sudan, Eritrea and Somalia). Under the Administrative Agreement signed between the Portuguese Ministry of Internal Administration and the Greek Ministry of Migration and Asylum, which provides for the transfer of 100 beneficiaries/seekers of international protection in a pilot phase, 16 citizens have also already arrived. Portugal has also received 142 asylum seekers under the EU-Turkey agreement between June 2016 and December 2017.

Portugal has given a very positive response to all emergency situations arising from rescues at sea, having already received 243 people rescued in the Mediterranean in recent years, being 6th European country that received the most refugees under the EU Relocation Programme, receiving 1.550 refugees from Greece (1.190) and Italy (360) between December 2015 and April 2018 - who were hosted by 97 municipalities.

¹⁴ UNICEF, IOM, UNMGY (2021), "Children uprooted in a changing climate. Turning challenges into opportunities with and for young people", <https://environmentalmigration.iom.int/children-uprooted-changing-climate-turning-challenges-opportunities-and-young-people>, p.10.

¹⁵ For further information, see <https://www.portugal.gov.pt/download-ficheiros/ficheiro.aspx?v=%3d%3dBQAAAB%2bLCAAAAAAABAAzNDIONAMajUsPLAUAAAA%3d>.

3. Analysis

3.1. The impact of the brand-new Climate Law – in general and, in particular, in the education field

The Portuguese Government and Assembly are well aware of the climate situation the world faces nowadays. The recently-published Climate Law addresses several existing gaps and legal ambiguity on certain matters related to the protection of the environment at the domestic level. It is regarded as a big step towards a concrete change in the legal framework in Portugal.

Firstly, it establishes the recognition of the climate emergency situation, as well as the possibility of future states of emergency to be declared on climate grounds (article 2, Climate Law). It stresses out that sustainable development and the respect for future generations is a major guiding principle in the definition of climate policies [article 4, paragraph a), Climate Law]. These policies should contribute to climate justice, for instance, by enhancing the protection of the most vulnerable communities to the climate crisis and the respect for human rights as well as stimulating education and research in that field [article 3, paragraphs b) and i), Climate Law].

In addition, this law (i) aims to promote a sustainable and resilient forest (reforestation, forest land use planning, increasing investment, more sustainable and resilient forest cultures, prevention and combat of rural fires, valorisation of ecosystem services, forest reconversion and landscape transformation actions, maintenance and incorporation of residual forest biomass in the soil), (ii) intends to increase the green cover and attenuate the heat island effect of urban centres, and (iii) to promotes intergenerational equity (articles 57 and 67, Climate Law).

On other hand, Climate Law recognizes the right to climate balance, which means the right to defend oneself against the impacts of climate change, as well as the power to demand that public and private entities comply with the duties and obligations to which they are bound in climate matters (article 5, Climate Law). To be able to exercise this and several other rights, citizens need to be aware of these rights. Education is the best way of ensuring future generations are aware of the crisis they will have to go through and of mitigating mechanisms they already have at their service or can put in place.

Additionally, it is through education that people learn how to reduce their ecological footprint. In that regard, Marta Pais de Almeida, founder of the project “Crescer a estuDAR”¹⁶, that aims to promote the education and schooling of underprivileged young people in Portuguese-speaking countries, underlines that although the Government has a crucial part in guaranteeing the adoption of environmental-friendly behaviors by every citizen, the fight for environment’s protection should start in our individual behavior and lifestyle.

Environmental education also enhances the comprehension and understanding of the consequences that the climate crisis has in all areas of society, which calls for the need of interdisciplinary strategies and targets. For instance, Climate Law identifies a social aspect - the protection of people and regions most vulnerable to the impacts of climate change - as a key

¹⁶ See <https://www.estudar.eu/sobre-nos>.

step to achieve a fair transition for a carbon neutral-economy [article 69, paragraph i), Climate Law]. Among these vulnerable people we can, for instance, include climate refugees, whose definition, status and recognition by the Portuguese State the Portuguese Government should be advocated in foreign policy matters within the framework of climate diplomacy [article 15, number 1, point d), Climate Law].

Younger generations have grown up hearing about environmental problems and its consequences for the future generations; however, there is little incidence of environmental issues at school level and the only way of learning about these matters is through the internet or the news. The Climate Law establishes that the Government shall incorporate climate education in primary and secondary school curricula; to promote climate education actions aimed at raising awareness among the general population, and to provide knowledge tools on the field (article 60, Climate Law).

Professor João Joanaz de Melo, founder and president of the Environment and Spatial Planning Study Group identifies four main challenges to the education in Portugal that have consequences on environmental education:

- the "abysmal deficit of scientific culture in our society", which refers to the lack of perception of the scientific method and knowledge on how to research, that could be solved with education for science;
- the over theoretical and "medieval" approach of forcing students to memorize and regurgitate information as a means of verifying knowledge, instead of training active and ethical citizens that are not mere passive consumers of ideas, and that are prepared for the work market and social interactions;
- the interpretation and text correction of students, that has been aggravated by the technological availability and the fact that everyone is reading and writing less each time, and that should be gained with language teaching; and
- the excess of information, that makes it harder to filter what is useful, reliable and worthy.

In the same reasoning, Professor João Joanaz de Melo states that the way how the ecological and even the social and political world works is something very difficult to learn through the teaching format that is deeply rooted in Portugal and which does not contribute to preparing citizens to deal with environmental problems. However, he believes a balanced use of technology and mandatory contact with nature could contribute to innovate teaching models, for instance, by taking students to places where they can see the man-made environmental damages.

On other note, although he recognizes courage in events such as the student climate strikes, he thinks that the younger generation's willingness to act is not backed up with knowledge. It is clear that younger generations are more sensitive to these issues - for example, a recent study by IOM and UNICEF indicates that young people are the most likely to migrate in response to climate-related shocks¹⁷. However, he points out that scientific literacy should be

¹⁷ UNICEF, IOM, UNMGY (2021), "Children uprooted in a changing climate. Turning challenges into opportunities with and for young people", <https://environmentalmigration.iom.int/children-uprooted-changing-climate-turning-challenges-opportunities-and-young-people>, p.10).

taken more seriously for them to gain knowledge about the world and effectively call for collective change.

It is important to refer that the educational determinations are made by people belonging to a generational group that is not the main affected. As such, it would be relevant that young people could voice their concerns and discuss matters that will affect their future on a political and legislative level. However, it has been identified that there are few forums in which this happens. To tackle this issue, the recently-created Climate Action Council of the National Parliament will recruit a young citizen residing in Portugal (article 12). However, this is not enough.

3.2. Climate change laws and regulations' enforcement, compliance monitoring and public participation

Equally important as a solid legal framework for the protection of the environment, is its effectiveness. This effectiveness is measured mainly through the permanent monitoring of compliance by companies (and, in some cases, individuals) with certain obligations, as well as through the effective application of the sanctioning regime, which has a certain deterrent effect.

The General Inspection of Agriculture, Sea, Environment and Spatial Planning – IGAMAOT is the national public authority responsible for carrying out inspections regarding environmental wrongful acts¹⁸. In 2016, IGAMAOT prepared an Environmental Inspection Guide whose purpose is to harmonize and standardize a procedure on the best practices to be adopted in the preparation and carrying out of inspection actions of the activities that affect the environment, taking into account the guidelines on inspection planning and risk assessment already developed by IGAMAOT. In 2020 IGAMAOT performed 278 environmental inspections to IPPC installations, and 421 infractions were reported in 199 notice orders; 5 administrative orders were issued, on the areas of wastewater and waste, two of which were fulfilled by the Operator and in three cases there was no compliance of the orders by the Operators and a participation was sent to the Public Prosecution Service (Procuradoria-Geral da República (PGR)). In 2021 IGAMAOT it is expected that around 650 inspections were made.

2019 Environmental Implementation Report (EIR) -Portugal – recommended that Portugal should review its system of administrative sanctions, the grounds for their application, and its capacity for more effective enforcement of final decisions¹⁹. Other recommendation was to continue its efforts to collect more comprehensive and integrated statistical data that include environmental crime and administrative violations in order to make the evolution of this phenomenon more visible.

The truth is that there is no centralised updated database on environmental crimes and their outcomes. The National Statistics Institute (INE) publishes data on certain types of crimes. However, crimes against the environment are not included. Authorities stated that IGAMAOT is

¹⁸ In particular, under the national legal framework established by the Industrial Emissions Directive, which was transposed into national law through Decree Law No. 127/2013, of 30 August.

¹⁹ 2019 EIR (Portugal), pp. 37- 8.

currently working on a computer platform with the registration of all national environmental sanctioning and preventive measures, and judicial decisions. In addition, in Portugal, there is a public perception that sanctions applied by administrative authorities such as IGAMAOT for environmental offences are often reduced by courts²⁰.

Portugal has implemented a good complaint system. Online information on how to complain about environmental problems may be found in several official websites. In general, information is very clear and easily accessible.

Portuguese NGOs of major importance provide public-awareness raising initiative and other relevant information regarding the possibility for citizens to alert or inform authorities on actual or potential environmental damages.

Regarding public participation (citizen contribution) for decision-making process, it is important to divide the legislative and the administrative dimension. Concerning the latter, participation of environmental impact assessment is facilitated by electronic means. The Portuguese Government created in 2015 "Participa.pt" which is an official online platform where all the procedures concerning environmental issues which are subject to public consultation are made available to the public. This initiative was implemented in order to centralise in a unique platform with easy access all procedures of public consultation. With regard to the public participation for decision-making process in its legislative dimension, despite the fact it is true that NGOs are usually consulted prior to the elaboration of relevant legislative acts on environmental issues, youth associations and organizations are not subject to prior consultation.

3.3. The implementation and enforcement of migration laws and regulations in Portugal

Under International Law, the Portuguese State has a duty to receive and take care of migrant children. In addition, it also has the duty to protect their families. The right to family reunification is included in the Convention on the Rights of the Child and in the Portuguese legislation through Law no. 23/2007 of 4 July²¹ on the "entry, stay, exit and expulsion of foreigners from the national territory".

In Portugal, in the case of unaccompanied children, they may have suffered various traumas in their country of origin and along their migratory journey and therefore may have specific psychosocial support needs. However, each child will have their own needs and vulnerability factors. The High Commissariat for Migrations and the Social Security Institute are the two main responsible public entities for ensuring that children migrants in Portugal have proper physical and mental care.

Portugal, in particular its public authorities need to continue implementing the Convention on the Rights of the Child and other national, European and international instruments on human rights. Citizens can also inform themselves about the realities that lead children to migrate and

²⁰ 2019 EIR (Portugal), available at https://ec.europa.eu/environment/eir/pdf/report_pt_en.pdf.

²¹ Available at: https://www.pgdlisboa.pt/leis/lei_mostra_articulado.php?nid=920&tabela=leis.

develop intercultural competences in order to facilitate the integration of these children in Portugal.

With regard to the educational aspect, and in order to facilitate the integration of children and young people under international protection in the Portuguese education system, Portuguese public schools allow²²:

- equivalency of foreign qualifications and/or integration in the appropriate schoolyear and educational offer;
- progressive integration in the Portuguese curriculum and reinforcement of the learning of the Portuguese language

If there are documents proving the schooling qualifications or professional qualifications, the equivalence is made by means of the complete schooling years that have been completed in the country of origin. If there is no information or document proving the foreign school qualifications (for example, certificates or diplomas), the equivalence of the same qualifications may be requested by submitting (i) a sworn statement from the student, the guardian or the person legally replacing him/her, stating the period of school attendance or qualification completed in the foreign country (of origin or host country) and (ii) statement issued by a competent entity justifying the exceptional situation.

The educational establishment is responsible for promoting the progressive integration of children and young migrants into the Portuguese curriculum, accompanied by reinforcement of the learning of the Portuguese language. Refugee children and young people covered by the educational measures for integration of refugee children and young people into the education system benefit from support from School Social Action, namely for food, transport and other resources. The application is made in the school grouping or non-grouping school where the student is enrolled.



²² See <https://eportugal.gov.pt/migrantes-viver-e-trabalhar-em-portugal/migrantes-ensino-em-portugal-para-criancas-joovens-e-adultos#educacaocriancasejoovens>.

4. Consolidation

4.1. The impact of climate change in future generations

Without prejudice to its two-dimensional approach, it is possible to draw relevant conclusions from this study regarding the impact of climate change on future generations.

In the short term it is a fact that severe climate changes will continue to occur. The increase in global warming by 1,5 Celsius cannot be avoided.

The Intergovernmental Panel on Climate Change (IPCC) Report pointed out the Mediterranean Zone (including Portugal) as one of the most vulnerable zones in the world with regard to climate change effects. Pursuant to Association ZERO (NGO), “the situation in Portugal is aggravated by exposure to extreme weather events, such as heat waves combined with droughts associated with conditions of enormous reduction in humidity and rising sea levels (factors that cause potential flooding and coastal overflows”²³.

Firstly, we would like to highlight the obvious delay in effectively combating climate change in Portugal. More than public-awareness, it has only been around 5 years since, strictly speaking, measures seeking to mitigate the effects of climate change began to be effectively applied. However, because the consequences of climate change manifest themselves in different forms, there is no concerted approach to the preventive model and the reactive model.

These are the most common, direct and short-term effects of climate change in Portugal:

- atmospheric pollution (decrease of air quality);
- forest fires;
- coastal erosion due to rising sea levels and storm surges;
- decrease in agricultural productivity and the difficulty in maintaining agricultural systems that are more sensitive to water flow;
- the spread of vector-borne diseases
- desertification;
- drought.

All of these effects are somehow correlated.

In Portugal, drought (and the consequent lack of water, both drinking water and water for irrigation and for livestock) and the significant increase in average annual temperatures have created many problems.

The number of burnt areas causes huge damages to the ecosystem, not only to the flora, but also to the fauna. The effects of deforestation (man-made and caused by fires) on the climate are well known, especially in the decrease of oxygen in the atmosphere and the consequent increase of carbon dioxide²⁴. This fact will bring consequences to future generations

²³ Source: <https://tvi24.iol.pt/sociedade/incendios/estas-sao-as-principais-consequencias-das-alteracoes-climaticas-em-portugal>.

²⁴ Regarding forest fires, we may have a snow-ball effect: the increase in cases of forest fires caused by global warming further enhances the negative effects of climate change. For further developments, see

at several levels: from the decrease in air quality causing, consequently, respiratory health problems, to economic-financial issues (and consequent levels of wealth of the country) since Portugal is a country "exporting" Tourism and fires have had a significant impact in the decrease of this sector of great influence in the country's economy²⁵⁻²⁶.

In addition, desertification is also one of the main concerns. Pursuant to the Portuguese Sea and Atmosphere Institute (IPMA), the causes of desertification in Portugal are on the one hand related to climatic factors and on the other hand to human activities, namely the overexploitation of water and soils in agriculture, the uncontrolled felling of trees, the excessive use of agrochemical products and deficient territorial planning policies. The frequent occurrence of large-scale forest fires in Portugal during the summer months has also contributed to soil degradation. Desertification causes rural exodus, which is dramatically increasing in Portugal. Our country is experiencing a "littoralisation" phenomena as a result of the desertification of inland regions and rural areas. Ironically, another effect of climate change is precisely coastal erosion, which in the medium term will affect large continental Portuguese cities such as Lisbon, Porto, Faro, Aveiro and Setúbal. Both these consequences increase stress and put pressure in large metropolises and it should not be forgotten that cities are a major source of pollution²⁷. This will dramatically decrease the quality of life of future generations.

Finally, maintaining a self-sustainable economy in Portugal is becoming increasingly difficult. The lack of water due to extreme drought is already wreaking havoc with livestock farming and agriculture in the country.

All these factors have a short, medium and long-term impact, and will undoubtedly affect future generations. The right to life, physical integrity, rest, health, social coexistence (in physical terms), freedom of movement and freedom of choice will be manifestly affected by the impact of climate change

The (legal) problem is to know if and to what extent there is an effective legal (and not merely moral) duty of the generation corresponding to the "active" population in Portugal to respect the rights, freedoms and guarantees of future generations. Soft law norms with little or no enforcement, such as the UNESCO Declaration on the Responsibility of the Present Generations Towards Future Generations, adopted in 1997, are welcome but not enough. Hard

Christopher C. French, "America on Fire: Climate Change, Wildfires & Insuring Natural Catastrophes", 54 U.C. Davis L. Review, 2020 pp, 817 ff.; Melania Michetti, Mehmet Pinar, "Forest Fires in Italy: An Econometric Analysis of Major Driving Factors", in CMCC Research Paper 152, 2013. The effects are similar to those of human-induced deforestation (for the latter, see Majed Mohammed, "The impact of tropical deforestation on climate change", SSRN paper, 2021).

²⁵ See Vladimir Otrachshenko, Luís C. Nunes, "Fire Takes No Vacation: Impact of Fires on Tourism", in 27, Environment and Development Economics, 2022, pp. 86 ff.

²⁶ For a wider approach, see also Claudia Custódio et al., "Economic Impact of Climate Change", SSRN, 2021.

²⁷ See David Castells-Quintana et al., "Density, Cities and Air Pollution: a Global View", in 189 Ecological Economics, 2021

law shall also protect those future rights. The recently adopted Climate Law seems to lean towards that direction, but the discussion at the constitutional level is by no means unanimous²⁸.

Finally, regarding the (indirect) impact of climate change in Portugal on migration, it is important to mention that the fundamental rights and freedoms of migrant children and young people “welcomed” in Portugal bring another difficulty: the adaptation of these people (and their families, when applicable) to the national culture and lifestyle; one should avoid an imposition of the national tradition, always respecting the culture and traditions of the countries of origin, within the limits naturally imposed by the international public order. This balance is quite complex and requires some effort and dedication from national authorities; inaction or a careless approach may have catastrophic consequences in terms of human rights violations for these migrant children and youth.

4.2. Identification of best practices (mitigation and adaptation)

The above identified risks relating to the impact of climate change on future generations should be addressed (by national authorities and citizens) through two *modus operandi*:

- Preventive actions (mitigation);
- Adaptative actions.

It is important to refer that taking decisions based on historical climate is no longer adequate. Many of the criteria used in decision-making processes have been developed based on our experience with the current and past climate. This leads to the inappropriateness and anachronism of such measures. Decisions should be taken on the basis of worst-case scenario forecasts. This is the only way to best mitigate the adverse effects of climate change and adapt to new emerging realities.

4.2.1. Preventive actions

When it comes to preventive actions, the first major step is to have a solid and robust legal framework. Soft law provisions, merely programmatic or generic rules are not enough. Concrete measures resulting in an effective implementation of those rules are necessary. In this aspect, Portugal is generally compliant. However, when it comes to enforcement and public awareness there is still a lot of work to be done.

And this work mainly involves education. A national educational project alerting the risks of climate change and its impact, teaching children and young people how to mitigate it, is one of the great pillars of this first dimension. We are only now beginning to think about including this type of issue in educational programmes. The country (and the world) is now what it is – also – because of a lack of proper knowledge of the generations currently controlling political power - and of the generations before them.

²⁸ See, for instance, the opinion of Gonçalo Almeida Ribeiro, judge of the Portuguese Constitutional Court, in “O problema da tutela constitucional das gerações futuras”, in *Justiça entre gerações: perspetivas interdisciplinares*, UCE, 2017, pp. 138 ff.

Secondly, there should be an increment on the quality of data regarding the compliance and enforcement of climate laws and regulations. Current data is not enough since it is disclosed in an aggregate format and does not cover all wrongful acts. This provides a greater effect on some economic players and public authorities.

Thirdly, public-awareness initiatives shall increase and be more targeted. This includes, not only the migrants topic – because there is few information on the monitorisation and ongoing processes of youth (environmental) migrants in Portugal – but also climate change in general. It is true that there is general public awareness with regard to climate change effects. However, what is really needed is a tailored (targeted) approach to specific groups, stakeholders, sectors of activity, age groups...

Public participation and citizen contributions should also be more relevant. Youth organizations should be heard before any relevant legislative measure on climate change area. The paternalistic approach should end. In addition, an effective communication between the analysis of data produced by Universities should be taken into consideration by public authorities including the legislation. Currently this communication and intersection of knowledge is poor.

Finally, the most relevant preventive measures are, in fact, the actions of all of us. The social and collective conscience should be stripped of any political-ideological bias and it should be based solely on the protection of the environment and, ultimately, of the human being. Every act counts.

As far as concrete measures are concerned, they should be implemented through different fronts. On the one hand, the reduction of carbon dioxide emissions into the atmosphere by continuing the transition process towards the use of "green" energies, whether in the industrial sphere, in transport or in consumption. On the other hand, an attempt must be made at all costs to stop the rural exodus due to extreme drought. In this case, incentives to local populations, namely through tax benefits, implementation of alternative and self-sustainable energy methods, as well as controlled water supply to these populations should be measures to be taken as soon as possible. In addition, strengthening local technological development (which has the effect of attracting a younger active population) should be seriously considered.

4.2.2. Adaptive Actions

A planned adaptation is crucial²⁹. Portugal shall seek to achieve the key objectives of the new EU Adaptation Strategy: smarter, faster and systemic adaptation and stepping up international action on climate change adaptation³⁰.

²⁹ The Portuguese Environment Agency considers that planned adaptation is much more effective than purely reactive measures taken in an emergency situation (see APA, <https://apambiente.pt/clima/politicas-e-medidas-de-adaptacao>).

³⁰ See https://ec.europa.eu/clima/policies/adaptation/what_en.

In this context, the Portuguese Environment Agency considers that adaptation measures may be hindered by a set of limitations and barriers, some real others of perception, and that may include³¹:

- Limited nature and magnitude of climate risks and vulnerabilities - current and/or future;
- Absence of policies, regulations, norms or guidelines that encourage the perpetuation of the status quo;
- Existence of legal or regulatory restrictions that represent real impediments to the adoption of measures;
- Absence of, or restricted access to, appropriate technologies;
- Prohibitive costs of identified adaptation measures in relation to available budgets;
- Lack of human capacity and skills within the organisation;
- Social, cultural or financial rigidities and conflicts and aversion to change (existing or perceived as such);
- Short term decision making and planning processes;
- Lack of capacity to deal with uncertainty;
- Lack or reduced awareness of the need to adapt on the part of decision makers;
- Belief that there is too much time to start deciding on adaptation;
- Lack of knowledge and precedents in the implementation of adaptation measures;

APA considers that the elimination of these barriers is facilitated by systematic analysis of the barriers to implement adaptation measures and by progressive awareness of the risks and consequences of climate change in their decision spheres.

Adaptive measures are multi-level (individual, business, city, regional, national and global) and should be consistent with a self-sustaining logic). Considering that the present study focuses on the effect of climate change on the national territory, causing an imbalance between urban and rural environments, the adaptive measures may include:

- Reapplying the smart city concept³² to the rural reality (smart land);
- The construction of climate refuges that seek to guarantee mild temperatures in times of extreme heat³³ - note that, as stated above, in this case, the energy source required for cooling must be a green source;
- The use of increased wind for wind power generation;
- Taking advantage of the increase in maritime flow and wave power to generate tidal energy;
- Increasing consumption rationality and improving the circular economy;
- The housing energetic transformation (supported by state subsidies for implementing photovoltaic energy);
- Alteração da arquitetura e dos materiais usados na construção das casas.

³¹ <https://apambiente.pt/clima/politicas-e-medidas-de-adaptacao>.

³² See Marta Ziosi, "Smart Cities: Mapping their Ethical Implications", SSRN, 2022.

³³ This idea has been supported by a University of Minho Researcher, Hélder Lopes - <https://www.publico.pt/2021/10/21/p3/noticia/investigador-defende-criacao-refugios-climaticos-cidades-1981974>. This measure is also being implemented in Spain (see <https://www.barcelona.cat/barcelona-pel-clima/es/escuelas-refugios-climaticos>).

Bibliography

Almeida Ribeiro, Gonçalo, “O problema da tutela constitucional das gerações futuras”, in *Justiça entre gerações: perspectivas interdisciplinares*, UCE, 2017, pp. 138 ff.

Castells-Quintana, David et al., “Density, Cities and Air Pollution: a Global View”, in *189 Ecological Economics*, 2021

Custódio, Claudia et al., “Economic Impact of Climate Change”, SSRN, 2021.

French, Christopher C., “America on Fire: Climate Change, Wildfires & Insuring Natural Catastrophes”, 54 *U.C. Davis L. Review*, 2020 pp, 817 ff.

Michetti, Melania; Pinar, Mehmet, “Forest Fires in Italy: An Econometric Analysis of Major Driving Factors”, in *CMCC Research Paper 152*, 2013.

Mohammed, Majed, “The impact of tropical deforestation on climate change”, SSRN, 2021.

Otrachshenko, Vladimir; Nunes, Luís C., “Fire Takes No Vacation: Impact of Fires on Tourism”, in *27, Environment and Development Economics*, 2022, pp. 86 ff.

Ziosi, Marta, “Smart Cities: Mapping their Ethical Implications”, SSRN, 2022

Consulted websites:

<https://ccpi.org/ranking/>

<https://rea.apambiente.pt/content/environmental-taxes?language=en>

<https://eco.sapo.pt/2022/02/15/russia-ja-e-o-terceiro-fornecedor-de-gas-a-portugal-mas-governo-diz-que-e-prematuro-falar-em-dependencia/>

https://sniambgeoviewer.apambiente.pt/GeoDocs/geoportaldocs/rea/REA2020/Infografia_geral_REA_2020-21_15dez2021.pdf

http://climatecasechart.com/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2020/20200902_3937120_complaint-1.pdf

<https://data.unicef.org/topic/child-migration-and-displacement/migration/>

<https://www.unicef.org.uk/futures-at-risk-climate-report>,

<https://data.unicef.org/topic/child-migration-and-displacement/migration>

<https://reliefweb.int/report/world/refugee-and-migrant-children-europe-accompanied-unaccompanied-and-separated-overview-5>

<https://missingchildreneurope.eu/children-in-migration/>

<https://www.theguardian.com/global-development/2021/apr/21/nearly-17-child-migrants-a-day-vanished-in-europe-since-2018>; <https://datawrapper.dwcdn.net/7Cscs/25/>

<https://www.om.acm.gov.pt/>

<https://www.om.acm.gov.pt/-/infografia-om-numeros-da-imigracao-em-portugal>

<https://www.unicef.org.uk/futures-at-risk-climate-report>,

<https://data.unicef.org/topic/child-migration-and-displacement/migration>

<https://reliefweb.int/report/world/refugee-and-migrant-children-europe-accompanied-unaccompanied-and-separated-overview-5>

<https://missingchildreneurope.eu/children-in-migration/>

<https://www.theguardian.com/global-development/2021/apr/21/nearly-17-child-migrants-a-day-vanished-in-europe-since-2018>; <https://datawrapper.dwcdn.net/7Cscs/25/>

<https://www.om.acm.gov.pt/>

<https://www.om.acm.gov.pt/-/infografia-om-numeros-da-imigracao-em-portugal>

<https://environmentalmigration.iom.int/children-uprooted-changing-climate-turning-challenges-opportunities-and-young-people>,

<https://www.portugal.gov.pt/download-ficheiros/ficheiro.aspx?v=%3d%3dBQAAAB%2bLCAAAAAAABAAzNDIONAMajUsPLAUAAAA%3d>

<https://www.estudar.eu/sobre-nos>.

<https://environmentalmigration.iom.int/children-uprooted-changing-climate-turning-challenges-opportunities-and-young-people>

https://ec.europa.eu/environment/eir/pdf/report_pt_en.pdf

https://www.pgdlisboa.pt/leis/lei_mostra_articulado.php?nid=920&tabela=leis

<https://eportugal.gov.pt/migrantes-viver-e-trabalhar-em-portugal/migrantes-ensino-em-portugal-para-criancas-jovens-e-adultos#educacaocriancasejovens>

<https://tvi24.iol.pt/sociedade/incendios/estas-sao-as-principais-consequencias-das-alteracoes-climaticas-em-portugal>

<https://apambiente.pt/clima/politicas-e-medidas-de-adaptacao>

https://ec.europa.eu/clima/policies/adaptation/what_en

¹<https://apambiente.pt/clima/politicas-e-medidas-de-adaptacao>

<https://www.publico.pt/2021/10/21/p3/noticia/investigador-defende-criacao-refugios-climaticos-cidades-1981974>

<https://www.barcelona.cat/barcelona-pel-clima/es/escuelas-refugios-climaticos>

Annex

Presentation of case studies

Case Study – Environmental Refugees

Considering that Portugal has made itself available to receive asylum seekers (relocated, via humanitarian boats or spontaneously) and resettled refugees (from Egypt and Turkey, in partnership with UNHCR), the number of minors (accompanied or unaccompanied) arriving in Portuguese territory is increasing every year. And such number tends to continue growing in view of the number of people who will arrive directly from Afghanistan.

In this sense, the proposed study would focus on the obstacles in the social integration of refugee minors in Portugal. The aim is to avoid that some failures identified in the reception and integration of minors are repeated, as seen in the case of the 5 Afghan boys who arrived in Portugal in 2017, so it is intended to identify failures in the application of current legislation, map good practices and propose alternatives to the obstacles identified in the social integration of refugee minors in Portugal, especially outside major urban centres such as Lisbon and Porto.

This case study raises some important issues. These issues also apply, *mutatis mutandis*, to environmental refugees:

- The bureaucracy to identify the real age of one of the children;
- The late - and interrupted - teaching of the Portuguese language;
- The change of accommodation and school without verifying the adequacy and the best interest of the child (considering that the change occurs when the child was thought to be a minor);
- Preparation of schools and reception institutions to receive and accompany the education and schooling of those children;
- Monitoring of the integration process by a specialised team (as stated in the guide for unaccompanied minors);
- Possible vulnerabilities not identified, but which could deserve special attention: mental, physical or cognitive disorders and/or disabilities.

Foad, Jan, Khan, Madhí and Najib were not yet 18 years old when they arrived in Europe. Jan and Khan are brothers, Madhí is an orphan, Najib lost his father, who was in the military, in the war in Afghanistan, and Foad fled from his parents and child labour. In Afghanistan he never went to school, he can neither read nor write. They fled the war in Afghanistan, slavery and child labour and abuse. They came in search of a new beginning, like all refugees who are forced to leave their countries. Those children arrived in Portugal in March 2017, directly from Greece, where they had been living for, at least, a year between host homes and refugee camps.

It is important to mention that Afghanistan is not on the list of countries covered by the European Union relocation programme. Despite being at war for almost 40 years, European

Union rulers acknowledge that there is no conflict and that it is a safe country. The decision to exclude Afghans from the relocation programme, makes Greece the beginning and end of the relocation in Europe for these refugees, as they either stay in Greece or are deported. Unaccompanied children (since they are underaged) cannot be deported. However, the Greek system is overcrowded, and it is not able to receive all children who arrive alone in Europe.

Portugal opened the door to five of these 3,500 children. It was a pilot project of five and the goal was to bring in 95 more unaccompanied children. Portugal was the first and only country in Europe to receive unaccompanied Afghan minors. However, there were many and severe failures in the integration process of Foad, Jan, Khan, Madhí and Najib.

The arrival of these five unaccompanied children was prepared for over a year by CNIS - National Confederation of Social Solidarity Institutions - the promoter of the initiative. Portugal, through the CNIS (National Confederation of Charitable Institutions)³⁴, and Greece, through MetaDrasi, a Greek non-governmental organisation specialising in the reception of unaccompanied children, signed an agreement that would make it possible for five young Afghans to come in a pilot project. But in Portugal, a huge group of state-owned institutions were also involved in the integration of these five young people into Portuguese society. The CNIS, the institution that was to coordinate the integration process as soon as Foad, Jan, Khan, Madhí and Najib landed in Portugal, was removed from the project

Those children were handed over to the COI Foundation, in Pinhal Novo³⁵. The guardianship was attributed by the Judicial Court of Setúbal to the President of the Administration Council. The reason for that choice of the COI Foundation falls on one reason and one reason only: upon entering Portugal, one of the boys, Jan, was already of age and could not be separated from his younger brother. Since there was an adult, the Institution that received the refugees should have autonomous flats.

Therefore, Foad, Jan, Khan, Madhí and Najib were placed in an autonomous flat of the COI Foundation in Montijo. The five of them lived there, always accompanied by an auxiliary. These employees of the COI Foundation worked under the coordination of a certified psychologist.

During their time at the COI Foundation, the group split in two. The disagreement between Foad and Jan dictated their dismissal. Foad was automatically withdrawn from the COI Foundation by order of Setúbal Family and Minors Juducial Court. He was placed in a home in Arronches, an Alentejo's town 220 kilometres far away from Lisbon. And since then (October 2017), he has not crossed paths with the other four boys who came with him to Portugal.

Foad spent a year in Arronches. He was placed in Lar PraCachopos, a boarding home for children and young people. Children with psychological and behavioural problems lived there. And it was not a home specializing in the reception of refugees in the integration phase. So, specialised and personalised treatment and care did not happen. Foad did not adapt to the pace of Arronches. He described the time he spent there as "prison". He was allowed to leave Arronches at the end of August 2018.

³⁴ See <https://cnis.pt/>.

³⁵ Official website: <https://www.fundacao-coi.pt/>.

By order of the Setubal Judicial Court, Foad had a medical examination of his femur. When he arrived in Portugal in March 2017, the SEF (Foreigns and Frontiers Service – specialized police³⁶) determined that Foad was 16 years old. Already after being in Arronches, the Court decided to assess the real age of the young man. The results of the medical examination led the Court to decree that Foad was already over 18 years old. Hence, the Court decided that he had already reached the age of majority.

Foad could then decide what to do: stay in Arronches, at the PraCachopos home, or return to Lisbon. He opted for the latter. When he came to Lisbon, the Court attributed Foad's "guardianship" to Santa Casa da Misericórdia de Lisboa³⁷. The technicians were faced with the challenge of integrating him into society.

For a year he lived isolated from normal day-to-day life and, although in Arronches Foad had the equivalent of a 9th grade education, he arrived in Lisbon without being able to read or write Portuguese. Only after almost a month living in Lisbon, Foad start learning Portuguese and he had classes at the Portuguese Council for Refugees³⁸, with refugees in a similar situation, and also at the Santa Casa's own Family Support Centre with a volunteer teacher.

Jan, Khan, Madhí and Najib continue to live together in a Social Security flat in Lisbon area. They were removed from the COI Foundation shortly after Foad left.

Siblings Jan and Khan remain inseparable and hope to bring their mother and siblings, who remained in Pakistan, to them. Najib and Madhí are doing a professional course but speak little Portuguese.

CNIS has changed partners. It now joins forces with the Associação de Apoio à Criança de Guimarães. They have a project planned and a future home for 16 unaccompanied Children idealized. They are working to provide a specialised reception that meets the expectations of those who come.

Only time will determine the success of this new project.

³⁶ Official website: <https://www.sef.pt/en/Pages/homepage.aspx>.

³⁷ Official website: <https://www.scml.pt/>

³⁸ Official website: <https://cpr.pt/>

Project – “Vamos cuidar do planeta” (Let’s take care of the Planet! – Portugal)

The "Let's Take Care of the Planet!" project is designed for children and young people aged 13 to 16 who are interested in their future and on the rights of future generations. Caring of citizenship, sustainable development and education, linked with a good methodological approach, are the inherent main purposes of this project that is intended to cover all Portuguese regions. It has been presented in more than 20 groups of schools, brings students together and makes them talk, discuss, learn, question and solve problems considered to be imminent in Portuguese civil society that will later be disturbances to their lives, in particular, with regard to environmental issues. One of its activities and outputs is to bring and gather children and young people at Portuguese Parliament. Together with members of the Environment Commission, their concerns and ideas will be subject to a proper public discussion at the legislative and political dimensions. Civic participation has changed the world many times and it is vital for a healthy democracy. However, the level of participation among youngsters in Portugal is one of the lowest in Europe. This project aims to change it since the main objective are to raise consciousness on civic participation, in particular by involving youngsters in solving the problems of their communities and create a network of schools, students and teachers capable of working together to influence political decisions.

The history of this Project goes back to 2009, in Brazil. The Brazilian Ministry of Education created an international project that culminated in an international conference "Let's Take Care of the Planet" in Brasilia in 2010, which brought together 400 young people from 53 different countries³⁹. From this conference, a document entitled International "Let's Take Care of the Planet" Youth Charter was created. It sets out the responsibilities and actions of different nations with diverse cultures, languages and societies to ensure the sustainable development of the Planet. In 2012, the first European Youth Conference "Let's Take Care of the Planet", organised by a French organisation Monde Pluriel, took place in Brussels at the Committee of the Regions of the European Union⁴⁰. 60 delegations, with participants aged 13 to 16, and 10 facilitators, aged 18 to 30, from 15 European countries attended the event. This conference produced an open letter to the political community, and created posters and videos to be shown in the committees they joined.

From such conferences and documents elaborated, the impact of this project has been growing. By 2015, with the goal of being present at the COP 21 in Paris, the project gained a dynamism capable of moving the civil society, namely in the younger strata, at various moments, such as conducting research in schools and organisations connected to the environment, creating debates and drafting proposals, participating in events and preaching their values, among other activities. In 2015, the second European Youth Conference "Let's Take Care of the Planet", also held at the Committee of the Regions in Brussels, gathered 150 participants, 69 youth delegations from 14 countries and 15 facilitators from 11 nationalities. This conference

³⁹ See <http://careplanet-europe.org/images/educommunication/ENGLISH - Youth Internat CHARTER jun2010.pdf>.

⁴⁰ See <https://careplanet-europe.org/index.php?lang=en>.

focused on climate change to prepare for the international negotiations to be held, in the same year, in Paris, in the framework of COP21. The European Project presents a very own methodology which is based on the following main principles:

- “A youngster elects a youngster”: members of the delegations are elected by the group of participants from each country to participate in the international conferences;
- “A youngster educates a youngster”: facilitators organise and present workshops for each delegation;
- “A generation learns with another”: bottom-up horizontal education should be honoured.

This methodology is advised to be implemented through debates on the various themes of the project, local actions, production of videos, photographs, publications in blogs, etc., following the principle of edu-communication, elaboration of reports corresponding to the results of the research carried out by the children and young people, election of delegations and preparation and preparation of local, regional and international conferences.

In 2018, as part of the third European Youth Conference, Portugal hosted the youth delegations from 10 European countries. The theme this time addressed the Sustainable Development Goals (SDGs) integrating the UN Agenda 2030. Knowing that the democratic participation of young people is what drives this project, they had the opportunity to approach MEPs at the Cascais Cultural Centre and show their proposals to the members of the Environment Commission at the Portuguese Parliament. From these meetings came a letter written by young people entitled "Let's Be the Change".

In Portugal, schools will prepare and execute several projects addressed to local, regional, national and global issues that will be submitted and presented in domestic and international conferences in order to discuss and spread the main focal points and actions. Conference results will be presented to policy decision makers in order to influence, directly or indirectly, their political and legislative decisions.

In 2019, "Let's Take Care of the Planet! – Portugal" received funding from EEAs Grants (supported by Iceland, Liechtenstein and Norway) that arose from an application made to the project Cidadãos Ativ@s of Calouste Gulbenkian Foundation and the Bissaya Barreto Foundation. It is coordinated by ASPEA and aims to increase the democratic culture and raise civic awareness among school-age children and young people. More than the direct effect of the actions of the children and young people involved, integrating such citizens in the climate fight for the preservation of the environment presents a greater involvement of values and learning that is perhaps rare to obtain in ordinary learning contexts.

In Portugal, the project has 6 practical objectives. These are:

- Increasing awareness and training actions for citizenship and sustainable development, in schools adhering to the project;
- Creation of a national network of schools "Let's Take Care of the Planet!"
- Increase young people's leadership and communication skills;
- Influence public policies, involving young people in political decisions;

- To increase the awareness and civic participation of the general population regarding sustainable development;
- To understand the needs and offer the technical skills of the project's partner organisations.

The methodology and objectives of the project are based on the National Strategy for Education for Citizenship (ENEC), which is the result of the proposal drawn up by the Working Group on Education for Citizenship. This document converges with two previously approved documents: the Profile of School Leavers and the Essential Learning. ENEC addresses a set of rights and duties to be present in the training of children and young adults, so that they adapt to a civic behaviour that favours equality in interpersonal relationships, the integration of difference, respect for human rights and the valorisation of concepts and values of democratic citizenship, within the framework of the curricular documents in force for the education system.

This project has been active. For instance, in 2021, the following activities had occurred:

1. Workshops for teaching staff

"Democratic culture and civic awareness in young people - Let's take care of the planet!" is the title of this workshop held in January 2022, which aimed to train teachers to implement innovative, dynamic and participatory methodologies capable of encouraging young people to think critically about their community and act in accordance with the Sustainable Development Goals (SDGs).

2. National Youth Conference 2021 (June) – The Voice of the Young as Part of the Solution

About 3600 students had the opportunity to present the work developed during the school year, share environmental concerns and ideas with teachers, political representatives and members of civil society. The youngsters identified several socio-environmental issues in their communities:

- High CO2 emissions;
- Excessive use of plastics;
- Industrial and transport pollution
- Pollution of public spaces;
- Lack of encouragement to separate waste
- Problems of exploitation and regulation of species;
- Excessive pollution of masks, due to the pandemic.

These were placed in the Letter of Co-responsibility Youth and Political Manifesto "The voice of the youth as part of the solution" elaborated on June 4 and pronounced to the political representatives and decision-makers on June 5. The document included the commitment of young people in order to demand from political representatives and institutions, practices that would solve the environmental crisis youngsters are experiencing. At the table youngsters received deputies from the Portuguese Parliament, who debated and made some important commitments to the problems identified and presented by the youngsters.

Conclusion

Over the last 30 years, global leaders came together to collectively slow global warming and address the climate crisis. But despite intense diplomatic negotiations and binding agreements, the Earth is still in danger.

Through the Kyoto Protocol and the Paris Agreement, countries agreed to reduce greenhouse gas emissions, but the amount of carbon dioxide in the atmosphere keeps rising, heating the planet at an alarming rate. Recently, as result of COP26, global leaders agreed on the Glasgow Climate Pact, which combines increased ambition and action from countries, meaning that 1.5 °C remains in sight, but it will only be delivered with concerted and immediate global efforts.¹ All countries agreed to revisit and strengthen their current emissions targets to 2030, known as Nationally Determined Contributions (NDCs), in 2022. This will be combined with a yearly political roundtable to consider a global progress report and a Leaders summit in 2023.

Additionally, after six years of negotiations, at COP26 the Paris Rulebook has been finalized and it includes the guidelines to implement the Paris Agreement. This will allow for the full delivery of the landmark accord and ensure a more transparent process which will hold countries to account as they deliver on their targets. This includes Article 6 which establishes a robust framework for countries to exchange carbon credits through the UNFCCC.²

At this stage, environmental and social activists, NGOs, young people and civil society call for an immediate switch from an announcement mode to an implementation one at global level.

“Hope for Children” CRC Policy Center, based in Nicosia, with the valuable contributions of the University of Verona and the University of Torino from Italy, the New University of Lisbon from Portugal and Rinova LTD from the UK, strives to encourage mutual dialogue on Climate Change and its inextricable link with the violation of the Rights of Future Generations, involving several key-actors such as youth, stakeholders, policy-makers and civil society organizations, both at national and transnational level.

The Transnational Youth Forum, taking place in Nicosia on March 16-17, 2022, represents a great opportunity for young participants, stakeholders and policy-makers to exchange ideas, discuss sustainable measures, create an international collaborative network and find possible solutions to tackle the negative impact of Climate Change on the Human Rights of Future Generations. During the Forum, the young participants will present the findings of their research, brainstorm raising awareness actions to ensure the sustainability of the project and prepare a common policy-recommendations document for further steps at local and European level.

¹ Available at: <https://ukcop26.org/cop26-keeps-1-5c-alive-and-finalises-paris-agreement/>.

² Idem.



TRANSNATIONAL

YOUTH

FORUM

2022

ADVANCING CHILDREN'S RIGHTS
FOR INCLUSIVE ACTION ON CLIMATE CHANGE



HFC
"Hope
For
Children"

RINOVA
innovate, create & regenerate

NOVA
NOVA SCHOOL
OF LAW



UNIVERSITÀ
DEGLI STUDI
DI TORINO



UNIVERSITÀ
di VERONA



Erasmus+

146