# GREEN PARTICIPATION, GREEN EUROPE

Project Number: 2023-2-TR01-KA154-YOU-000168735

A2- Climate Change

# ENVIRONMENTAL DEGRADATION AND HUMAN IMPACT



TÜRKİYE ULUSAL AJANSI
TURKISH NATIONAL AGENCY

Funded by
the European Union

GREEN PARTICIPATION
GREEN EUROPE

WHAT IS

# ENVIRONMENTAL DEGRADATION

- Environmental degradation is now a global crisis.
- It threatens the planet's ecological balance.
- Main causes: overuse of natural resources and unsustainable consumption.

This session focuses on:

- Understanding personal responsibility
- Realizing our collective impact



IPBES (2019). GLOBAL ASSESSMENT REPORT ON BIODIVERSITY AND ECOSYSTEM SERVICES.
HTTPS://IPBES.NET/GLOBAL-ASSESSMENT

WHAT IS

# ENVIRONMENTAL DEGRADATION

- **The deterioration of the environment through the depletion of resources, destruction of ecosystems, and pollution.**

- **Environmental degradation refers to the irreversible damage to soil, water, air, forests, and biodiversity caused by human activities.**
- **The main consequences include habitat loss, pollution, climate change, and resource depletion.**

It affects land, water, air, and biodiversity.

Caused by both natural processes and human activities.



UNEP (2021). MAKING PEACE WITH NATURE. HTTPS://WWW.UNEP.ORG/RESOURCES/MAKING-PEACE-NATURE

# TYPES OF ENVIRONMENTAL DEGRADATION



**Air pollution**
Smog, greenhouse gases

**Water pollution**
Contaminated rivers, oceans, groundwater

**Soil degradation**
Erosion, salinization, desertification




**Biodiversity loss**
Extinction of species, deforestation

WHAT IS

# ENVIRONMENTAL DEGRADATION

- Environmental degradation refers to the depletion of natural resources, destruction of ecosystems, and loss of biodiversity. In the Anthropocene era, human activity is the dominant force shaping environmental change.

- According to the Millennium Ecosystem Assessment (2005), over 60% of global ecosystem services are degraded or used unsustainably.



# MAJOR CAUSES

- DEFORESTATION AND LAND-USE CHANGES
- INDUSTRIAL ACTIVITIES AND URBANIZATION
- AGRICULTURAL PRACTICES (OVERUSE OF CHEMICALS)
- WASTE MISMANAGEMENT
- CLIMATE CHANGE




Human actions have environmental reactions.

# IMPACT ON ECOSYSTEMS

Habitat loss and species extinction

Disrupted food chains

Coral bleaching and marine life death

Soil infertility



# SCIENTIFIC EVIDENCE OF HUMAN IMPACT

- Fossil fuel usage has driven greenhouse gas concentrations to unprecedented levels.
- As of 2023, the global temperature rise exceeds 1.2 °C above pre-industrial levels.
- Species extinction rates are now up to 1000 times the natural background rate.



IPCC (2023). SIXTH ASSESSMENT REPORT.

HTTPS://WWW.IPCC.CH/REPORT/AR6/SYR

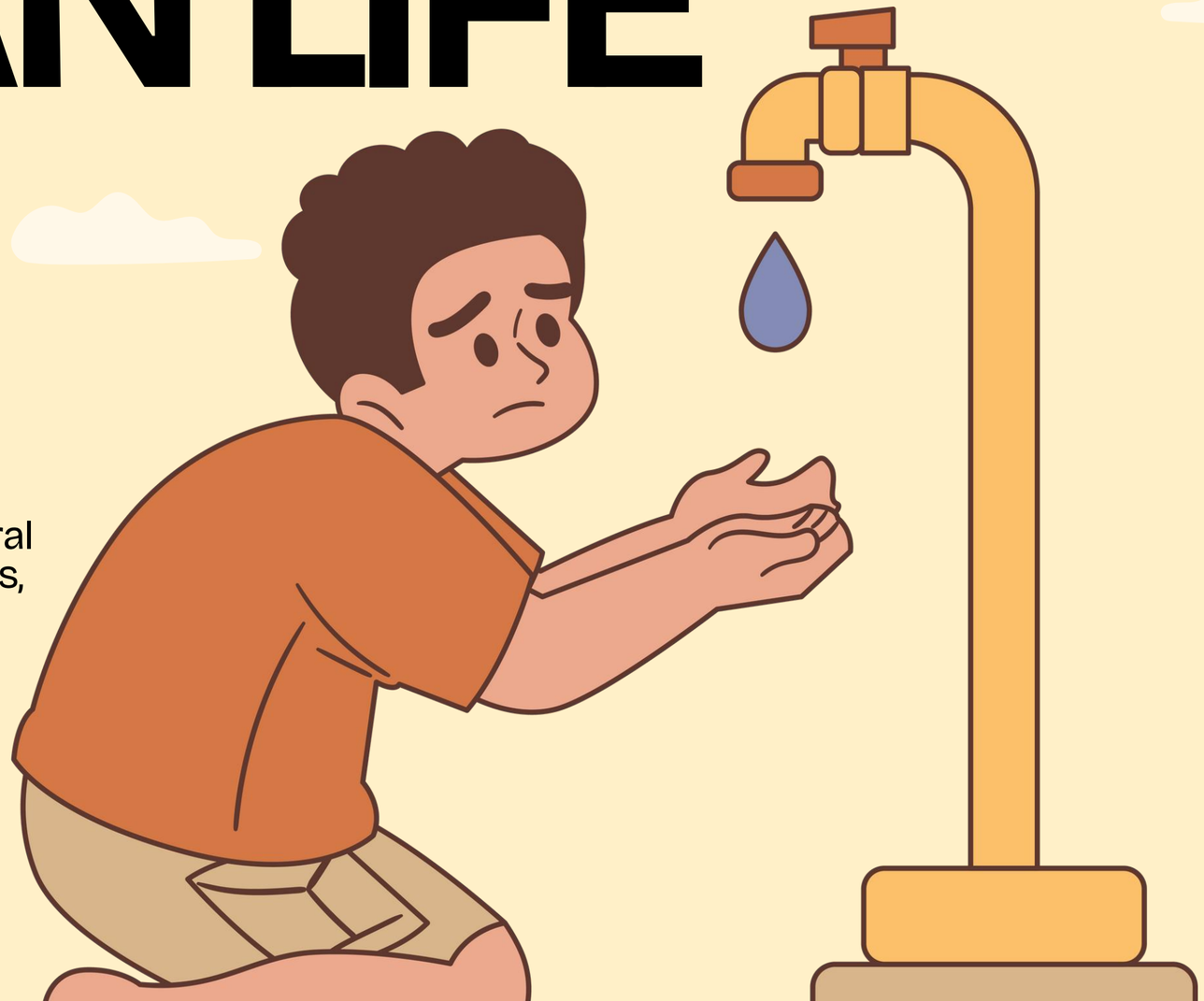
# IMPACT ON
# HUMAN LIFE

**Air and water-borne diseases**

Reduced agricultural productivity

Water shortages

Increased natural disasters (floods, droughts)



What hurts the Earth, hurts us too.

# SCIENTIFIC EVIDENCE OF HUMAN IMPACT

- The IPCC Sixth Assessment Report (2023) shows that the past decade is likely the warmest in the last years.
- Greenhouse gas emissions, deforestation, and land-use changes are significantly increasing the frequency and intensity of climate-related disasters.





# SCIENTIFIC EVIDENCE OF HUMAN IMPACT

- Fossil fuel usage has driven greenhouse gas concentrations to unprecedented levels.
- As of 2023, the global temperature rise exceeds 1.2 °C above pre-industrial levels.
- Species extinction rates are now up to 1000 times the natural background rate.



# GLOBAL EXAMPLES



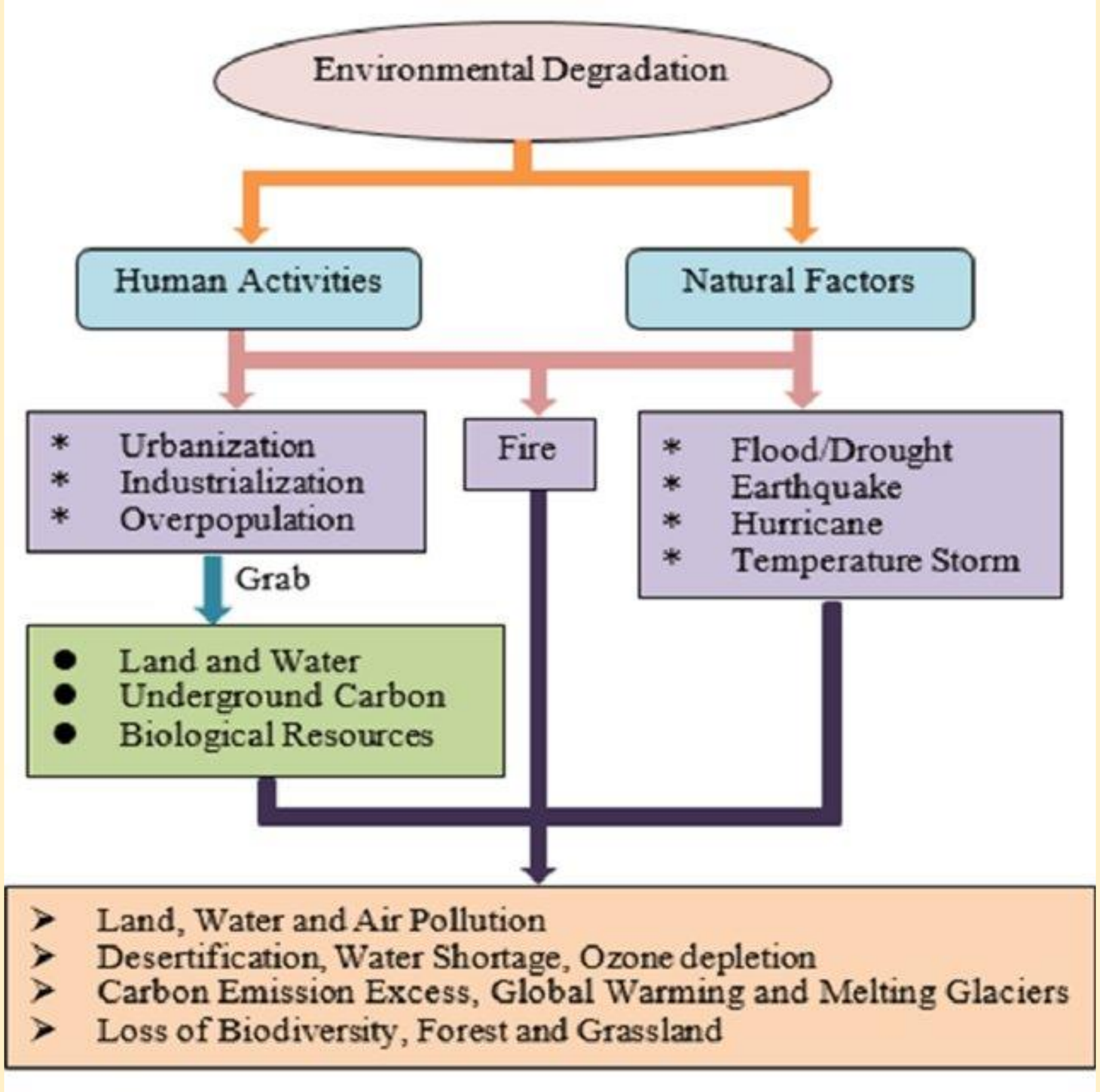
Amazon Rainforest deforestation

Plastic pollution in oceans

Air pollution in major cities

Melting glaciers and rising sea levels

It's happening everywhere—
even here.


Environmental Degradation
Human Activities
Natural Factors
* Urbanization
* Industrialization
* Overpopulation
Fire
* Flood/Drought
* Earthquake
* Hurricane
* Temperature Storm
Grab
● Land and Water
● Underground Carbon
● Biological Resources
➢ Land, Water and Air Pollution
➢ Desertification, Water Shortage, Ozone depletion
➢ Carbon Emission Excess, Global Warming and Melting Glaciers
➢ Loss of Biodiversity, Forest and Grassland

# TASK

Participants will be divided into groups.
Each group will discuss one of the following topics

1. Environmental impact of our consumption habits
2. Carbon footprint of transportation choices
3. Effect of food preferences on biodiversity

Each group will propose sustainable alternatives.



# THE EU AND ENVIRONMENTAL RESPONSIBILITY



The European Union’s Green Deal aims to make Europe climate-neutral by 2050.

Erasmus+ programs support this goal through youth engagement and awareness initiatives.

# THE EU AND ENVIRONMENTAL RESPONSIBILITY



The European Union educates youth on sustainability through the Green Deal and GreenComp.

Erasmus+ supports climate initiatives such as the Youth Climate Pact and Green Skills for Youth.

EUROPEAN COMMISSION (2019). THE EUROPEAN GREEN DEAL. HTTPS://EC.EUROPA.EU/GREEN-DEAL

# CONSEQUENCES OF ENVIRONMENTAL DEGRADATION



- Drought and water stress
- Food security risks
- Migration and conflict
- Collapse of ecosystem services (e.g., pollination, water purification)

# CONSEQUENCES OF ENVIRONMENTAL DEGRADATION



- FAO (2022): Agricultural yields may decline by 10–30% by 2050 due to climate stress.
- IPBES (2019): 1 million species are at risk of extinction.
- WHO (2021): Air pollution causes around 7 million premature deaths each year.

FAO (2022). THE STATE OF THE WORLD'S LAND AND WATER RESOURCES.
HTTPS://WWW.FAO.ORG/SOWARE

# CONCEPT OF SUSTAINABILITY



Sustainability is the ability to meet current needs without compromising the ability of future generations to meet theirs.

It includes not only environmental but also economic and social dimensions.

# YOUTH AND ERASMUS



Young people are key agents of transformation for the environment.

“Environmental sustainability” is one of the core priorities of the Erasmus+ 2021–2027 program, promoting youth participation in climate action and the development of green skills.

EUROPEAN COMMISSION. (2022). ERASMUS+ PROGRAMME GUIDE. HTTPS://ERASMUS-PLUS.EC.EUROPA.EU

# YOUTH AND ERASMUS



The European Union educates youth on sustainability through the Green Deal and GreenComp.

Erasmus+ supports climate initiatives such as the Youth Climate Pact and Green Skills for Youth.

# CARBON FOOTPRINT CALCULATOR



Each participant will use an online carbon footprint calculator (e.g., WWF or EU Carbon Footprint Tool) to assess their own consumption patterns.

Results will be compared in groups, followed by a discussion on sustainable lifestyles.

🔗 EU Calculator

https://footprint.wwf.org.uk/questionnaire



# PROJECT IN EU

- URBAN GREENING MISSION (European Commission, 2023):
- Implementation of green corridors, vertical gardens, and carbon sinks in urban areas.

- FRUGAL CITY (Norway):
- Urban planning focused on energy efficiency and water conservation systems.



EUROPEAN COMMISSION (2023). MISSION ON CLIMATE-NEUTRAL AND SMART CITIES.
HTTPS://EC.EUROPA.EU/INFO/RESEARCH-AND-INNOVATION

# DISCUSSION

- What was the most surprising fact you learned?
- What lifestyle changes would you like to make?
- What kind of collective actions can we plan as young people?



WHAT IS

# GREENWASHING

Greenwashing refers to deceptive practices where companies promote an environmentally responsible image without substantiating their claims.

This includes exaggerating eco-friendliness, using vague labels, or displaying nature-themed marketing to distract from unsustainable operations.

Examples:

- Products labeled as “carbon neutral” without transparent offsetting strategies
- “100% recyclable” packaging with no actual recycling infrastructure
- Use of green visuals or slogans while engaging in polluting activities

Why it matters:

Greenwashing undermines consumer trust, misleads public action, and slows down the shift toward genuine sustainability.



WHAT IS

# ECOLOGICAL LITERACY

Ecological literacy is the ability to understand natural systems and make informed decisions that foster environmental sustainability. For youth, it forms the foundation of responsible citizenship and active participation in climate solutions.

To develop ecological literacy:

- Teach systems thinking and nature-human interdependence
- Integrate climate, biodiversity, and sustainability topics into education
- Encourage local, action-based environmental projects



WHO IS

# YOUTH CLIMATE LEADERS

Youth climate leaders across Europe play a vital role in demanding environmental justice and mobilizing peers.
They are visible voices in the climate movement, shaping public discourse and pressuring policymakers.

Example: Luisa Neubauer

- Leading voice of Fridays for Future Germany
- Speaker in European Parliament on climate justice
- Advocates for intersectional, youth-driven sustainability

Why it matters:
Youth leaders bring ethical urgency and fresh perspectives to sustainability efforts. Erasmus+ can foster such leadership through climate education and exchange.



## CURRENT

# EFFORTS & SOLUTIONS



- ENVIRONMENTAL LAWS AND INTERNATIONAL AGREEMENTS
- REFORESTATION AND CONSERVATION PROJECTS
- SUSTAINABLE AGRICULTURE AND ECO-FRIENDLY TECHNOLOGIES
- RENEWABLE ENERGY ADOPTION

Hope grows where action is taken.

# WHAT CAN WE DO?

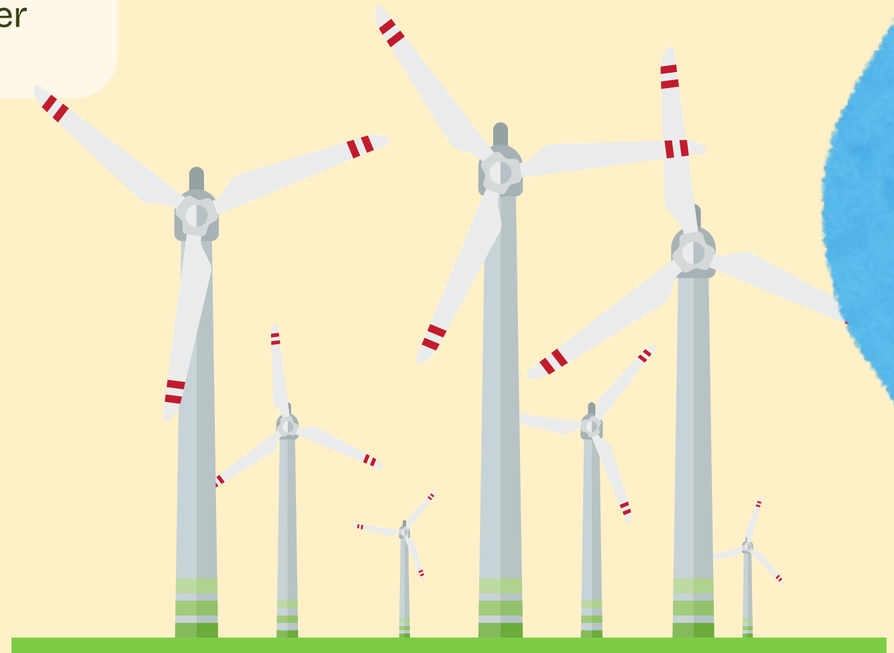
**Reduce, reuse, recycle**

Participate in local clean-up or tree-planting events

Support green initiatives

Conserve water and electricity

Educate others and raise awareness





Small steps,
big impact.

Case Study

# CASE STUDIES ON HUMAN ACTIONS LEADING TO ENVIRONMENTAL DEGRADATION



In this session, we will examine significant case studies demonstrating how human activities lead to environmental degradation.

Each example highlights not only environmental impacts but also social and economic consequences.

# CASE STUDY 1 – OIL SPILLS IN NIGERIA'S NIGER DELTA

**Nigeria's Niger Delta region has been a hub for oil production since 1956. However, frequent oil spills and gas flaring have negatively impacted fishing and agriculture, contaminating soil and water resources.**

**This has led to the loss of livelihoods and increased health issues among local communities.**

## Cases of Environmental Human Rights Violations by Shell in Nigeria’s Niger Delta

26/05/2014

**CASES OF ENVIRONMENTAL HUMAN RIGHTS VIOLATIONS BY SHELL IN NIGERIA’S NIGER DELTA**

**Introduction**

Since 1956 when oil production in commercial quantities began in Nigeria’s Niger Delta, the Delta communities have known no rest. For more than five decades oil has been Nigeria’s leading export product. Nearly one-half of that oil production has been carried out under Shell’s supervision. There has been massive environmental degradation from frequent oil spills and gas flaring resulting in declining fish catch and poor crop yields and impoverishment. Community protests since the late 1980s have been met with oppression and repression by the armed forces backed by the oil company Shell. There has been impunity for those guilty of human rights violations and of failing to adhere to environmental standards, making it imperative to set global standards and enforcement mechanisms to control oil companies. Some of the many instances of environmental and social dislocations leading to human rights violations are presented below.

Cases of Environmental Human Rights Violations by Shell in Nigeria’s Niger Delta

# CASE STUDY 2 – DEFORESTATION AND FLOOD DISASTERS IN INDONESIA

CLIMATE

**In Indonesia, deforestation is intensifying disasters from severe weather and climate change**

**Since 1950, Indonesia has lost over 74 million hectares of rainforest, primarily due to palm oil production and mining activities.**
**This deforestation has led to increased soil erosion, water pollution, and more frequent flood disasters.**




In Indonesia, deforestation is intensifying disasters from severe weather and climate change | AP News

# CASE STUDY 3 – ARSENIC RELEASE IN MANFREDONIA, ITALY

**In 1976, a chemical plant accident in Manfredonia, Italy, released a significant amount of arsenic into the environment.**
**This incident led to contamination of soil and water resources, damage to agricultural lands, and posed serious health risks to the local population.**




Arsenic accidental soil contamination near Manfredonia. A case history: Journal of Environmental Science and Health . Part A: Environmental Science and Engineering: Vol 16, No 3

# CASE STUDY 4 – OK TEDI MINE DISASTER IN PAPUA NEW GUINEA

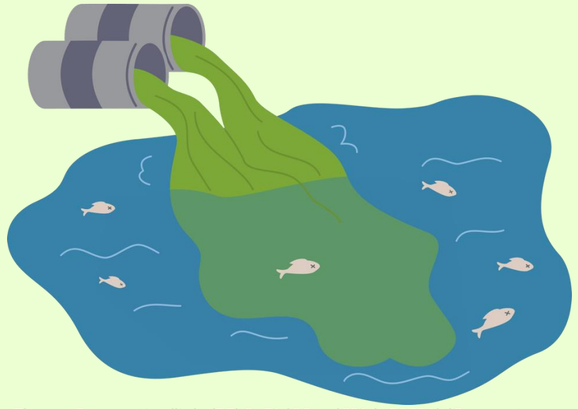
Corporate Environmental Disclosures in Response to Public Awareness of the Ok Tedi Copper Mine Disaster: A Legitimacy Theory Perspective

Article *in* Accounting Research Journal · January 1999

Source: OAI

**The 1984 disaster at the Ok Tedi Mine in Papua New Guinea affected a 1000 km river system, negatively impacting agriculture and fishing.**

**Waste from the mine raised the riverbed, leading to significant environmental degradation**



researchgate.net/profile/Pamela-Kent-3/publication/43491550_Corporate_Environmental_Disclosures_in_Response_to_Public_Awareness_of_the_Ok_Tedi_Copper_Mine_Disaster_A_Legitimacy_Theory_Perspective/links/55b9a71d08aed621de08724b/Corporate-Environmental-Disclosures-in-Response-to-Public-Awareness-of-the-Ok-Tedi-Copper-Mine-Disaster-A-Legitimacy-Theory-Perspective.pdf

# CASE STUDY 5 – SEVESO DISASTER, ITALY



*Published in final edited form as:* Environ Int. 2018 Sep 1;121(Pt 1):71–84. doi: 10.1016/j.envint.2018.08.051

**The Seveso accident: A look at 40 years of health research and beyond**

**On July 10, 1976, a chemical plant accident in Seveso, Italy, released highly toxic TCDD (dioxin) gas into the atmosphere.**

**This incident led to the establishment of the European Union's Seveso Directive to prevent such environmental disasters.**

The Seveso accident: A look at 40 years of health research and beyond - PMC

# CASE STUDY 6 – LLOBREGAT RIVER POLLUTION, SPAIN

**Studies in the Llobregat River basin near Barcelona have identified agriculture and industrial activities as primary sources of pesticide and nitrogen pollution.**

**This contamination adversely affects water quality and ecosystem health.**

ELSEVIER

Science of The Total Environment

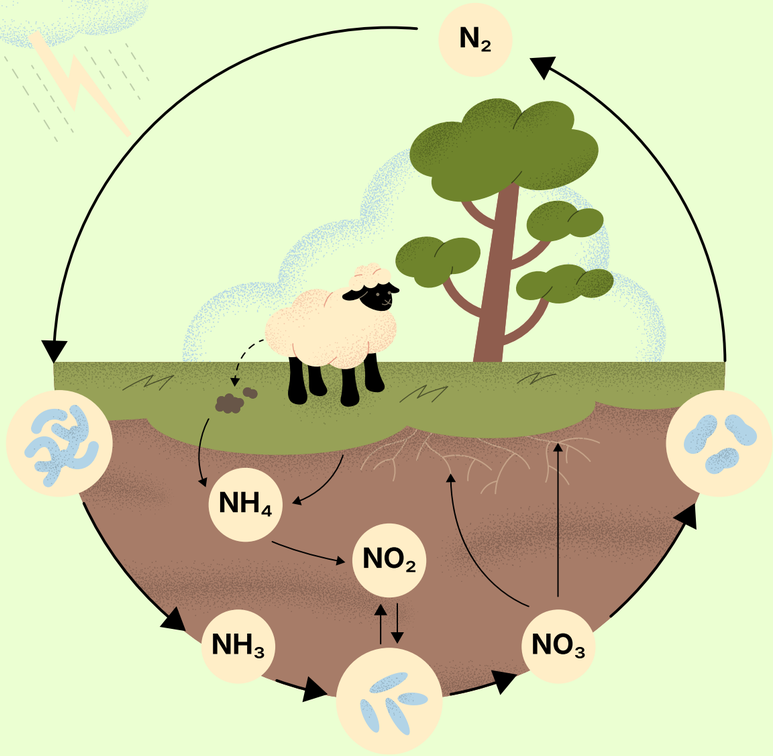
Volume 755, Part 1, 10 February 2021, 142377




Investigative monitoring of pesticide and nitrogen pollution sources in a complex multi-stressed catchment: The lower Llobregat River basin case study (Barcelona, Spain)

Investigative monitoring of pesticide and nitrogen pollution sources in a complex multi-stressed catchment: The lower Llobregat River basin case study (Barcelona, Spain) - ScienceDirect

# CASE STUDY 7 – DEFORESTATION AND TOURISM, EUROPE




An analysis conducted in Europe examined the relationship between corruption, deforestation, and tourism activities.

The findings indicate that these factors can contribute to increased environmental degradation.

# CASE STUDY 8 – IMPACT OF ROAD INFRASTRUCTURE ON BIRD SPECIES IN CYPRUS

A study in Cyprus investigated the effects of road infrastructure on the diversity and distribution of bird species.
The results indicate that road-induced habitat fragmentation negatively impacts bird populations.



# COMMON THEMES AND OUTCOMES



Common themes observed in these case studies include:

- Overexploitation and unsustainable use of natural resources
- Damage to local communities' livelihoods
- Long-term impacts of environmental degradation

# YOUTH AND ERASMUS



The European Union educates youth on sustainability through the Green Deal and GreenComp.

Erasmus+ supports climate initiatives such as the Youth Climate Pact and Green Skills for Youth.

# DISCUSSION

Which of these case studies impacted you the most, and why?

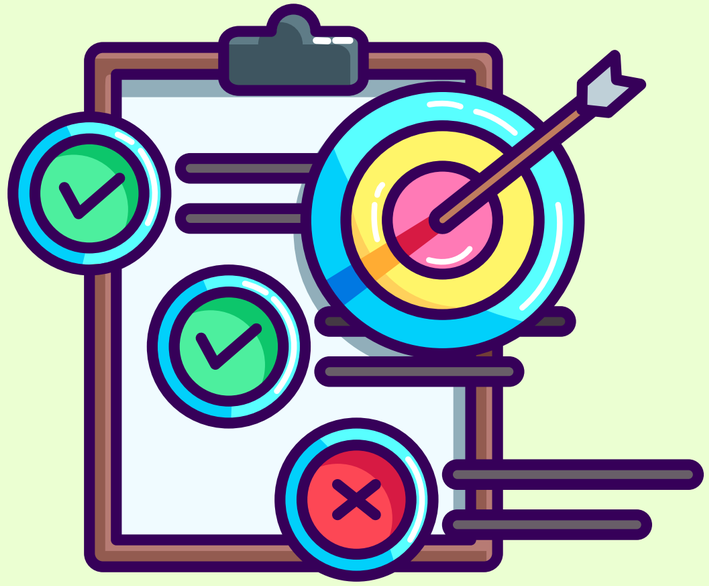
What actions can individuals and societies take to prevent similar environmental issues?



# REFLECTION ON PERSONAL RESPONSIBILITY

Responsibility is the awareness of the consequences of one's actions and the ability to be accountable for them.

In an environmental context, it means recognizing and transforming the impact of our daily decisions on nature.



# WHY DOES PERSONAL RESPONSIBILITY MATTER?



Individual behaviors produce global consequences.
72% of carbon footprints stem from consumer choices.
Each person's choice shapes the direction of society.

# WHAT SHAPES YOUR ENVIRONMENTAL BEHAVIOR?

- Family habits
- Education level
- Media and peer influence
- Economic access
- Social norms



# SMALL CHANGES, BIG IMPACTS



- Reducing meat consumption → 25% lower carbon footprint
- Recycling → Up to 80% energy savings
- Using public transport → Avg. 1 ton $CO_2$ saved per year

# A FUTURE BUILT ON RESPONSIBILITY

The future of our planet depends on the choices we make today. Personal responsibility is the cornerstone of a sustainable society.



# INTERACTIVE REFLECTION



- What one behavior could you change starting today?
- Which environmental responsibility is the hardest for you?
- How could you influence your family and friends through small actions?

# DISCUSSION



1. Which of these case studies impacted you the most, and why?
2. What actions can individuals and societies take to prevent similar environmental issues?

EVERY ACTION COUNTS— SMALL CHANGES LEAD TO BIG IMPACTS

# ENVIRONMENTAL DEGRADATION THREATENS OUR PLANET AND FUTURE GENERATIONS



# THANK YOU!

## LET'S PROTECT THE ENVIRONMENT TOGETHER!







# REFERANCES


- IPBES. (2019). Global Assessment Report on Biodiversity and Ecosystem Services. https://ipbes.net/global-assessment
- UNEP. (2021). Making Peace with Nature. https://www.unep.org/resources/making-peace-nature
- IPCC. (2023). AR6 Synthesis Report. https://www.ipcc.ch/report/ar6/syr/
- European Commission. (2019). The European Green Deal. https://ec.europa.eu/green-deal
- FAO. (2022). State of the World's Land and Water Resources. https://www.fao.org/soware
- Erasmus+ Programme Guide. (2023). https://erasmus-plus.ec.europa.eu
- Intergovernmental Panel on Climate Change. (2023). Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (AR6). IPCC. https://www.ipcc.ch/report/ar6/syr/
- Millennium Ecosystem Assessment. (2005). Ecosystems and Human Well-being: Synthesis. Island Press. https://www.millenniumassessment.org/en/Synthesis.html
- Food and Agriculture Organization of the United Nations (FAO). (2022). The State of the World's Land and Water Resources for Food and Agriculture – Systems at Breaking Point. FAO. https://www.fao.org/3/cb9910en/cb9910en.pdf
- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). (2019). Global Assessment Report on Biodiversity and Ecosystem Services. IPBES Secretariat. https://ipbes.net/global-assessment
- World Health Organization (WHO). (2021). Ambient air pollution: Health impacts. WHO. https://www.who.int/health-topics/air-pollution#tab=tab_2
- European Commission. (2022). GreenComp: The European Sustainability Competence Framework. Publications Office of the European Union. https://op.europa.eu/s/pZFk
- Orr, D. W. (2004). Earth in Mind: On Education, Environment, and the Human Prospect (2nd ed.). Island Press.
- TerraChoice Environmental Marketing Inc. (2010). The Sins of Greenwashing: Home and Family Edition. https://sinsofgreenwashing.com/index35c6.pdf
- Ivanova, D., Stadler, K., Steen-Olsen, K., Wood, R., Vita, G., Tukker, A., & Hertwich, E. G. (2016). Carbon footprint of household consumption globally: Carbon intensities of consumption categories and countries. Environmental Research Letters, 11(9), 094011. https://doi.org/10.1088/1748-9326/11/9/094011
- Neubauer, L., & Repenning, A. (2020). Vom Ende der Klimakrise: Eine Geschichte unserer Zukunft. Ullstein Verlag.