C.H.A.N.G.E.R.S. - 2.0

Biodiversity and zero pollution

Green Economy, Green Communities, and Environmentally Responsible Behaviour

https://changers2.eu/

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Module 7 – Biodiversity and zero pollution
Lesson Plan

Aim:-

To reflect on personal values, identify and explain how values vary among people and over time, while critically evaluating how they align with sustainability values.
To identify own potential for sustainability and to actively contribute to improving prospects for the community and the planet.

Objectives:-

1. Understand the impact of human activities and human attitudes in a natural resource context.
2. Understand the consequences of the depletion of natural resources for present and future generations.
3. Embrace the role of environmental stewards by actively caring for and conserving the Earth's natural resources.
4. Understand the concept of green economy (including the sustainable management of natural resources and the assumption of environmentally responsible behaviours)

Module 7 – Biodiversity and zero pollution
Lesson Plan

Description of Activities

1. Ask the seniors to reflect on their own experiences with natural resources throughout their lives.

2. Encourage seniors to reflect on the real-world depletion of resources and the potential impact on future generations. Then divide participants into small groups and let them analyse a case study focusing on a specific natural resources issue, such as water scarcity or biodiversity loss.

3. Use a visually engaging presentation to show examples of human activities that have had a significant impact on natural resources.

4. Provide an overview of the green economy and its key principles. Present information on the significance of water conservation and the importance of soil quality for agriculture, ecosystems, and climate regulation. Then divide seniors into small groups and let them analyse a case study focusing on an aspect of sustainable resource management (e.g., water scarcity, soil erosion, or sustainable agriculture) and brainstorm solutions.

Training modules and unit topics

WP3 Structure	WP3 Unit Topics	WP4 Training Modules
1. Living sustainably *Aim: To reflect on personal values, identify and explain how values vary among people and over time, while critically evaluating how they align with sustainability values*	**1A - Intergenerational Responsibility** **1B - Waste** **1C - Green Economy**	1. Green ABC (Introduction)
2. Problems of the world today *Aim: To manage transitions and challenges in complex sustainability situations and make decisions related to the future in the face of uncertainty, ambiguity and risk.*	**2A - Adaptation to climate change** **2B - Mitigation to climate change**	2. House performance 3. House renovations 4. Waste
3. Energy: Resources, Poverty & Sustainability *Aim: To identify own potential for sustainability and to actively contribute to improving prospects for the community and the planet.*	**3A - Energy resources** **3B - Energy poverty** **3C - Energy sustainability** **3D - Sustainable mobility**	5. Sustainable mobility 6. Sustainable food **7. Biodiversity and zero pollution**

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Clarifying important concepts and terms

- **Climate Change -** refers to "global climate variation or regional climate changes that occur over decades and affect the balance of ecosystems".
- **Sustainable Development** - "meeting the needs of the present without compromising the ability of future generations to meet their own needs". (UN, 1987)
- **Intergenerational Commitment** - is a moral and ethical obligation related to sustainability which includes the defence of a healthy environment as a duty and inalienable right of current and future generations.
- **Green economy** - when "growth in employment and income are driven by public and private investment into economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services." (UNEP)
- **Biodiversity** - "the different kinds of life you'll find in one area—the variety of animals, plants, fungi, and even microorganisms like bacteria that make up our natural world."
- **Green Community** - "a community that implements environmentally friendly practices to meet the needs of its members."
- **Pollution** - "introduction by man into the environment of substances or energy liable to cause hazards to human health, harm to living resources and ecological systems, damage to structures or amenity, or interference with legitimate uses of the environment."

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Green Economy

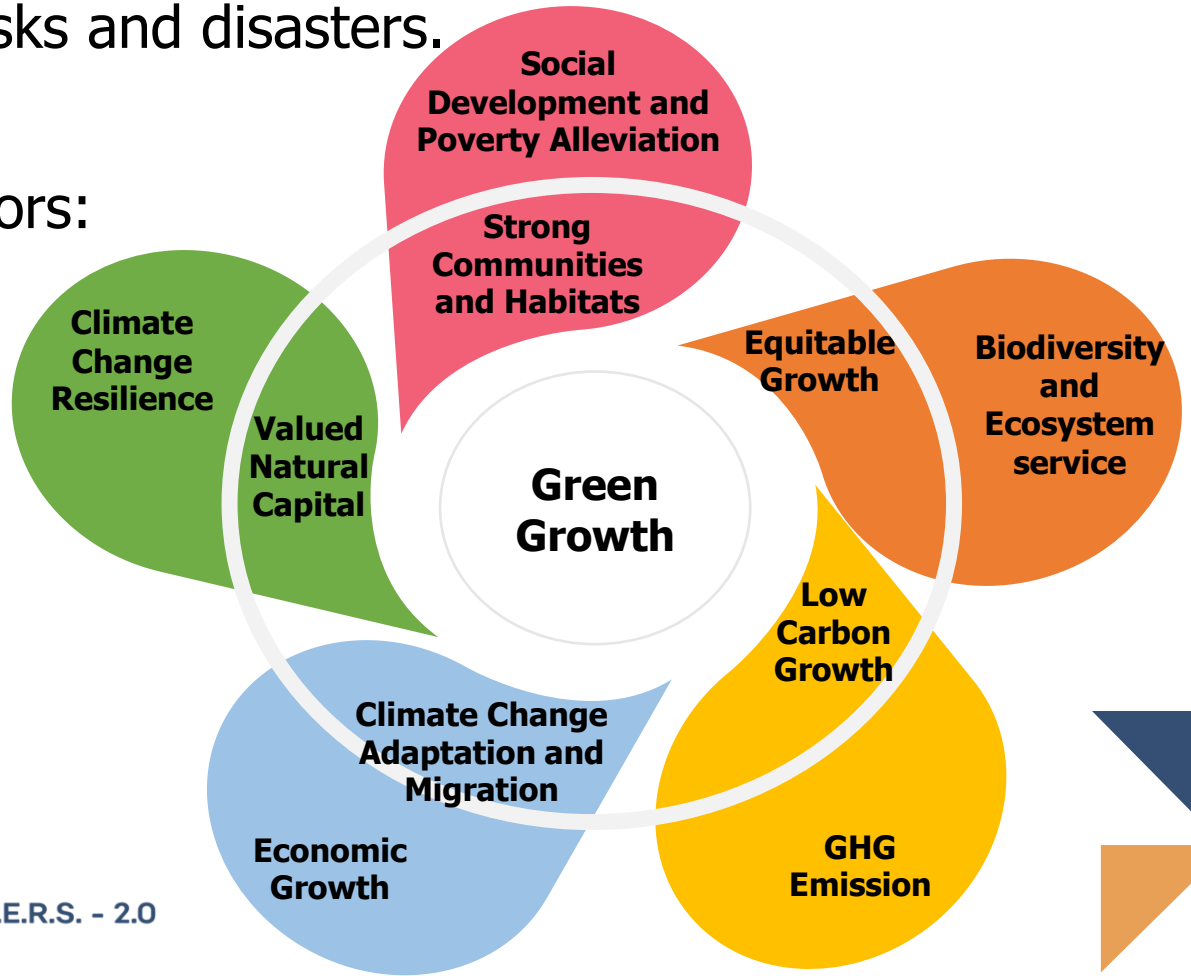
https://www.sciencedirect.com/science/article/abs/pii/S0301420723008929

What is a green economy?

A green economy aims for sustainable development without degrading the natural environment; and which results in increased human well-being and social equity while significantly reduces environmental risks and disasters.

A green economy is based on six main sectors:

- Renewable energy
- Green buildings
- Sustainable transport
- Water management
- Waste management
- Land management



Nine Principles of a Green Economy

SUSTAINABILITY	**JUSTICE**	**DIGNITY**
HEALTHY PLANET	**INCLUSION**	**GOOD GOVERNANCE AND ACCOUNTABILITY**
RESILIENCE	**EFFICIENCY AND SUFFICIENCY**	**GENERATIONS**

https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=723&menu=1515

Class Exercise

Activity 1 - Green economy

Children and future generations are at the forefront of bearing the burdens of the climate crisis. For discussion:

- What are your main concerns, and hopes regarding climate change?
- Do you think climate change will effect your lifestyle or endanger life, and how can we prepare ourselves?
- Do you think you have enough information to protect yourself or children from climate change?
- How are we part of nature and how can we reconnect?
- Do you think that the biggest problem with climate change is that people don't care about it or that they don't know about it?
- Do we have a duty to future generations and is de-growth possible?

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Green Communities

What are green communities?

- A green community implements environmentally friendly practices to meet the needs of its members.
- Living in a green community provides a wealth of benefits for residents, including improved health and well-being, increased morale, reduced energy costs and cleaner air.
- Climate change is naturally one of the main motivations behind the implementation of green communities.
- Green communities can be thematically focused. Ex.1: energy communities, which enable collective and citizen-driven energy actions to support the clean energy transition. Ex.2: community gardenings, where any piece of public or private land is cultivated by a group of unpaid residents or volunteers for the common good.

https://energy.ec.europa.eu/topics/markets-and-consumers/energy-communities_en

Stakeholder engagement

- Refers to "*individual or group of people seeking to address issues of public concern or policy in order to make a change in their community*".
- Can be both political and non-political but typically shares a common set of interests to lobby for change.
- Can ensure higher representation / voting turnout due to importance of certain projects -> increasing pressure on politicians and authorities.
- Is different from stakeholder management. Engagement implies willingness to listen and change outputs as a result of stakeholder engagement.

Difference between stakeholder management and engagement

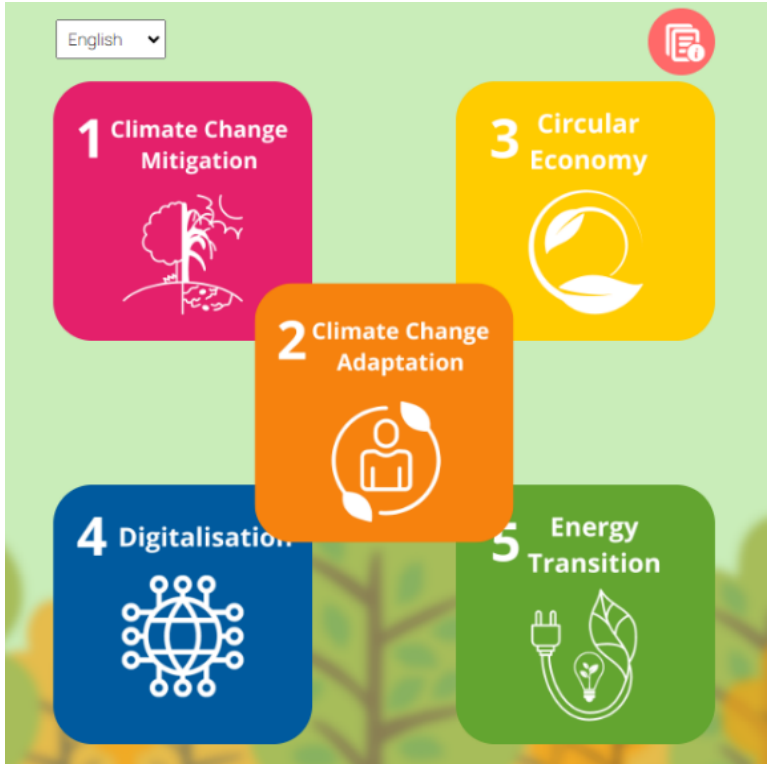
Level of Engagement	Description	Nature of Approach
Inform	A uni-directional flow of information from project to stakeholders.	Non-participatory
Consult	A process by which stakeholders are asked for information or their opinions.	
Involve	Stakeholders are involved in discussions about the project and can influence decisions, but are not directly involved in decision making.	Participatory
Collaborate		
Empower: involvement & decision-making	Stakeholders are fully involved, often facilitated to lead on decision-making.	

Class Exercise

Activity 1 - Green communities

Try out the Greenvolve Game with the participants of your event/training:
https://game.greenvolve-project.eu/

Platform users can test themselves interactively on topics connected to public consultations on green issues. The game contains multiple-choice questions which are rather tricky, requires critical thinking and a holistic approach for understanding which elements contribute to a green city.



Class Exercise

Activity 2 - Green communities

Children and future generations are at the forefront of bearing the burdens of the climate crisis. For discussion:

- After talking to other peers and seniors in the group, is there anything that can help us be greener as a community and take real climate action?
- How can we build green communities for change?
- What is the future we wish for and how can we create the future?

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Environmentally Responsible Behaviour

Biodiversity and pollution

- **Biodiversity** refers to the variety of animals, plants, fungi, and microorganisms that make up our natural world.
- **Pollution** refers to the "*introduction by man into the environment of substances or energy liable to cause hazards to human health, harm to living resources and ecological systems, damage to structures or amenity, or interference with legitimate uses of the environment.*"

What is the relation between biodiversity and pollution?

- Pollution can have very negative effects on biodiversity, and we are dirtying the environment beyond the thresholds that biodiversity can sustain.

https://www.unep.org/gef/news-and-stories/story/pollution-action-missing-link-biodiversity-protection
http://www.businessandbiodiversity.org/the_issues_pollution.html

Changing individual consumption choices

- There are a number of more substantial solutions to biodiversity loss, like restructuring business plans or putting pressure on governments to legislate, but do not overlook small choices at the personal level.
- Making conscious decisions to make sustainable and biodiversity-friendly choices is still an important solution.
- If each individual makes a small change to their lifestyle, the collective impact of these changes would be monumental.
- Bringing your own bag to the supermarket, recycling, re-using or just using a metal straw are obvious and easy choices.
- Changes in dietary habits, like reducing meat consumption, could reduce diet-related greenhouse gas emissions by 25-40%.

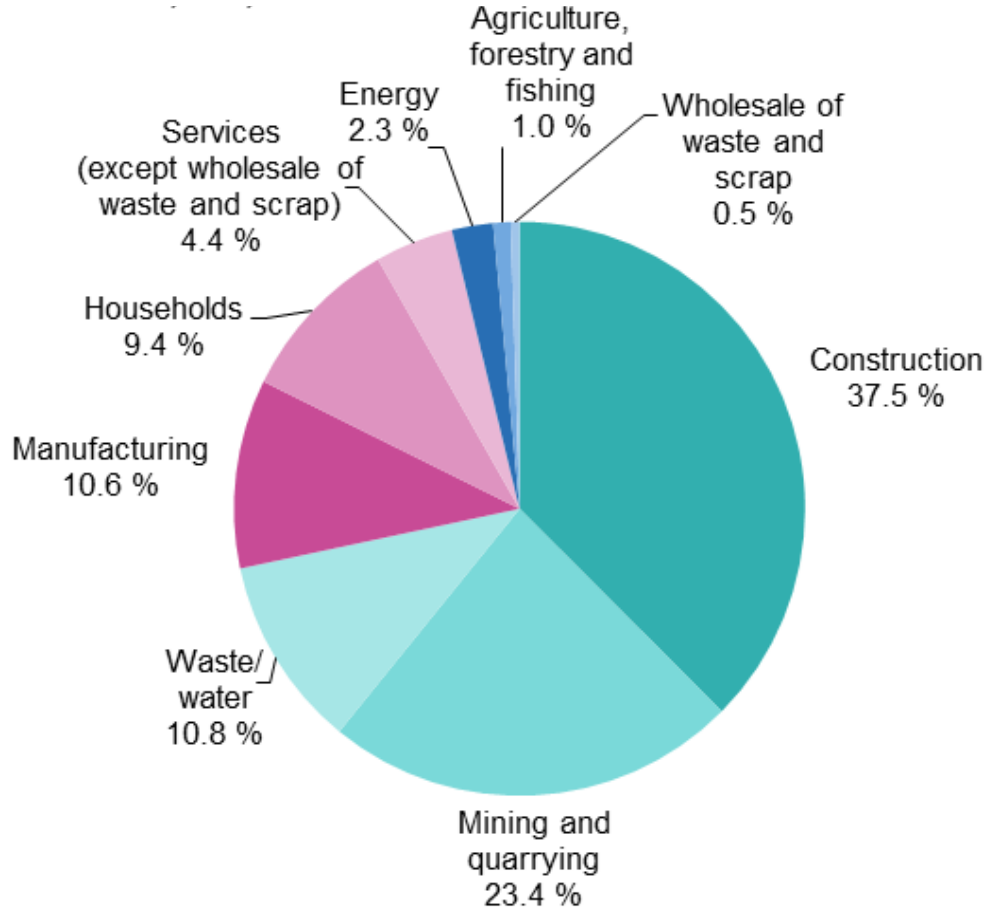
https://www.safefoodadvocacy.eu/actions/meat-reduction/
https://earth.org/solutions-to-biodiversity-loss/

https://www.un.org/sites/un2.un.org/files/2021-twg_2-062321.pdf
https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Municipal_waste_statistics#:~:text=527%20kg%20of%20municipal%20waste,in%20the%20EU%20in%202021.&text=49%20%25%20of%20municipal%20waste%20in,recycling%20and%20composting)%20in%202021.

How much waste do we generate

- 4.8 tonnes of waste generated per EU inhabitant in 2020.
- 39.2 % of waste recycled and 32.2 % landfilled in the EU in 2020.
- Households only account for 9.4% of waste in 2020. 37.5% was caused by construction, followed by mining (23%), wastewater (10.8%) and manufacturing (10.6%)

Waste generation by economic activities and households, EU, 2020
(% share of total waste)



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https://www.globalgoals.org/goals/12-responsible-consumption-and-production/

Seniors and responsible consumption

Responsible consumption practices are essential for reducing our environmental footprint and promoting sustainability. Here are some practices you can adopt:

1. Reduce, Reuse, Recycle.
1. Buy Less, Choose Well.
1. Shop Locally.
1. Use Reusable Bags and Containers.
1. Eat Sustainable Foods.
1. Conserve Energy.
1. Reduce Water Usage.
1. Compost Organic Waste.
9. Choose Eco-friendly Products.
10. Repair and Maintain.
11. Borrow or Share.
12. Support Ethical Brands
13. Practice Conscious Travel.
14. Educate Yourself and Others.
15. Participate in Community Initiatives.

https://www.teachingenglish.org.uk/sites/teacheng/files/2022-08/CALE_activities_low_resource_contexts.pdf

Class Exercise

Activity 1 - Environmentally Responsible Behaviour

Engage in a discussion on the impacts of climate change along the following 10 topics.

1. The 5 Rs'. Taking action to reduce, reuse, recycle, repair and refuse, to live sustainably	6. Upcycling. Thinking about how rubbish can be recycled into items of higher value.
2. Endangered animals. Reflecting on the importance of protecting all wildlife.	7. Fast fashion. Finding a compromise on the climate and economic impacts of the fashion industry.
3. Storm coming. Learning about extreme weather and taking action to reduce risks.	8. Water for all. Examining the water crisis and its impacts, globally and locally.
4. Sports in (climate) crisis. Exploring the relationship between sport and the climate crisis.	9. Farming and the environment. Connecting farming, food security and the climate crisis.
5. Buy. Use. Toss. Understanding the impact of consuming and throwing away	10. Climate change and energy. Assessing energy sources and their impact on our planet.

Class Exercise

Activity 2 – Environmentally Responsible Behaviour

Help young people and older adults get to know more about the life experiences of people in other age-groups and stimulate dialogue about intergenerational similarities and differences.

- Ask participants to bring a few items that people of their generation tend to know a lot about, but which might not be familiar to people of other generations. For example, a child might select a 'headset' or pokemon, and an older adult might select a cassette player or fountain pen.
- For each item, let participants guess what it is. (Give hints if needed.)
- Once relatives/friends guess what the item is (or give up guessing), provide additional information about how the item was used, compare childhood memories and reflect on different consumption and waste patterns between yesterday and today.

https://aese.psu.edu/outreach/intergenerational/curricula-and-activities/intergenerational-activities-sourcebook Penn State College of Agricultural Sciences (2003).

END OF MODULE 7

Thank you for your attention and please complete the exit questionnaire.

References

- UNEP (2024). Green economy. https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-economy
- Green Economy Coalition (2012). The Principles of a Green, Fair and Inclusive Economy https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=723&menu=1515
- Wang et al. (2023). Greening the knowledge-based economies: Harnessing natural resources and innovation in information and communication technologies for green growth. https://www.sciencedirect.com/science/article/abs/pii/S0301420723008929
- Penn State College of Agricultural Sciences (2003). Intergenerational Activities Sourcebook. https://aese.psu.edu/outreach/intergenerational/curricula-and-activities/intergenerational-activities-sourcebook
- UN. The Principles of a Green, Fair and Inclusive Economy: https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=723&menu=1515
- United Nations (2021). Towards the achievement of SDG 7 and net-zero emissions. https://www.un.org/sites/un2.un.org/files/2021-twg_2-062321.pdf https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Municipal_waste_statistics#:~:text=527%20kg%20of%20municipal%20waste,in%20the%20EU%20in%202021.&text=49%20%25%20of%20municipal%20waste%20in,recycling%20and%20composting)%20in%202021.
- Briem et al. (2019). Personalized Life Cycle Assessment - Reflecting Individuality within the Methodological Framework. Materials and Society: The Circular Economy (SAM13). Volume 107, Number 5, 2019. https://www.researchgate.net/publication/339502224_Personalized_Life_Cycle_Assessment_-_Reflecting_Individuality_within_the_Methodological_Framework
- The Conversation (2018). How smartphones are heating up the planet. https://theconversation.com/how-smartphones-are-heating-up-the-planet-92793
- School of Global Environmental Sustainability. Colorado State. (2019). The Hidden Environmental Impacts of the Products We Use. https://sustainability.colostate.edu/humannature/evan-sproul/
- U.S. General Services Administration. Sustainable Facilities Tool. https://sftool.gov/plan/400/life-cycle-assessment
- Global Goals. Responsible consumption (2024). https://www.globalgoals.org/goals/12-responsible-consumption-and-production/
- SAFE (2022). Meat Reduction https://www.safefoodadvocacy.eu/actions/meat-reduction/

  Earth.org (2022). 7 Solutions to Biodiversity Loss https://earth.org/solutions-to-biodiversity-loss/
- EC (2023). Energy communities https://energy.ec.europa.eu/topics/markets-and-consumers/energy-communities_en
- UNEP (2023). Pollution action: the missing link in biodiversity protection. https://www.unep.org/gef/news-and-stories/story/pollution-action-missing-link-biodiversity-protection
- Business & Biodiversity Resource Centre Pollution and Biodiversity (2022). http://www.businessandbiodiversity.org/the_issues_pollution.html

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