

**GREEN
JOB
GROWTH**

TOOLKIT FOR EDUCATORS

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PROJECT PARTNERS

“Green Job Growth” (GJG), a project co-funded by the Erasmus+ Programme, is an ambitious 18-month initiative committed to fostering sustainable development and youth employment across Europe. Coordinated by Bridging Europe in Germany and in collaboration with Amici di Puck (Italy) and Go Green (Spain), this project addresses the urgent need for promoting green skills among young people and facilitating their entry into the green economy.

The primary objective of the project is to equip youth workers with the essential knowledge and skills to guide young people along a green employability pathway. This endeavor requires the development of significant resources that can inform and instruct, thus enabling youth workers to become effective green coaches.

The GJG project aligns with the EU Green Deal’s objectives and recognizes the potential of its progressive implementation to foster a greener EU economy, creating millions of new job opportunities for young people. By supporting the professional development of youth workers and fostering quality improvements in youth work activities, the GJG project underscores the crucial role of youth work in advancing the green economy and green jobs. In doing so, it helps prepare the young generation for a future where they can live and work in an environmentally responsible way.



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INTRODUCTION



In today's dynamic world, the concept of "green skills" is reshaping how we view work, sustainability, and economic growth. This paradigm shift extends beyond addressing environmental concerns, representing a crucial link between the evolving job market and the pursuit of sustainable development. This exploration delves into the multifaceted realm of green skills, emphasizing their significance in the modern job market and their pivotal role in achieving global sustainable development goals.

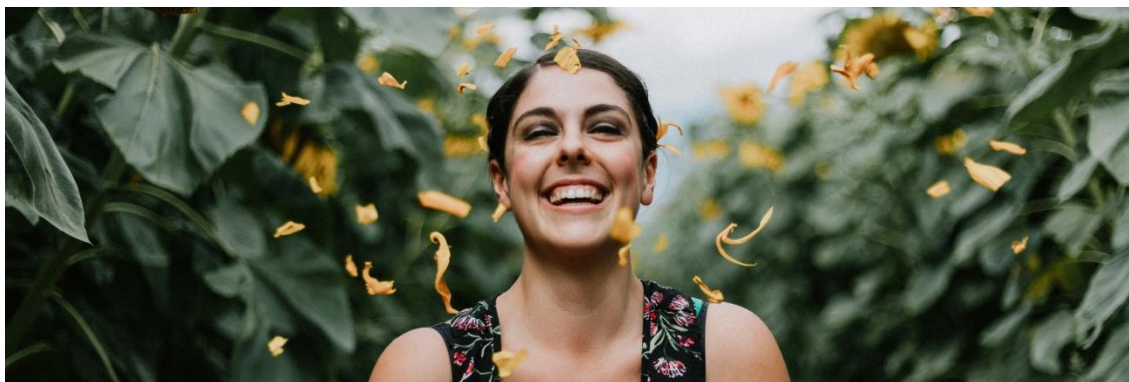
We will explore how green skills are driving transformations in diverse sectors, from renewable energy and sustainable agriculture to green construction and environmental conservation. The increasing adoption of Corporate Social Responsibility (CSR) policies and the development of clean technologies across industries underscore the transformative impact of green skills on business practices and employment opportunities.

Beyond economic considerations, green skills play a vital role in sustainable development, promoting a holistic approach that combines environmental stewardship, economic viability, and social equity. This exploration also underscores the pivotal role of youth workers in cultivating green skills among the younger generation, bridging the gap between environmental consciousness and practical competencies.

The subsequent sections unveil a comprehensive toolkit designed to empower youth workers in promoting green skills.

The toolkit structure includes chapters that address key competencies, methodologies, implementation strategies, and advanced topics that highlight the relationship between global Sustainable Development Goals and localized efforts to shape a sustainable and environmentally conscious future.

CHAPTER 1 - Introduction to Green Skills and Youth Work



1. Overview of Green Skills

The concept of "green skills" has become increasingly important in determining how work and sustainable development will evolve in the modern world. In the face of urgent environmental issues and a rapidly changing technology environment, the need of green skills extends beyond only addressing ecological concerns. It represents the critical relationship between the shifting work market and the effort to achieve sustainable development. This evolution reflects a more extensive transition towards sustainability across several industries, which is reshaping career paths and creating innovative opportunities.

Green skills are essential for implementing the ideas of sustainable development as well as for promoting innovation and economic growth in a green economy. Green skills play a crucial role in promoting a balanced and sustainable future by combining environmental responsibility with social and economic growth. The dual significance of green skills, in terms of both regenerating the labor market and promoting responsible habits, proves essential for cultivating a workforce that is both adaptable as well as ecologically conscious. Considering these, we will explore the various ways in which green skills are essential to the evolution of the today's job market as well as the more general objective of achieving sustainable development on a global level.

1.1 Importance in the Current Job Market

Green skills have become increasingly significant in the current job market as a result of the confluence of global trends and changes. The increasing demand for



this is mainly motivated by the worldwide focus on sustainability, as demonstrated by global agreements such as the Paris Climate Accord and the United Nations Sustainable Development Goals. These programs have stimulated an increase in the need for employment in key sectors such as renewable energy, sustainable agriculture, green construction, and environmental conservation. For instance, the renewable energy industry, which includes solar and wind power technologies, is growing quickly and needs a workforce that is skilled in both implementing and maintaining these technologies. Likewise, sustainable agriculture is progressing by using organic farming techniques and sustainable land management approaches.

In the realm of green construction, professionals are needed to design and build structures that are energy-efficient, reducing carbon footprints and operational costs. Similarly, environmental conservation is gaining prominence, with a focus on biodiversity protection and ecosystem management.

Parallel to this, many countries are transitioning to green economies, which open up new job opportunities in areas such as energy efficiency, waste reduction, and



sustainable resource management. This transition requires a workforce that is skilled in green technologies and sustainable practices. For example, the circular economy model, which emphasizes recycling and reuse, requires specialized skills in managing waste in an environmentally sustainable manner. Resource management, particularly in managing water, minerals, and biological resources, is also becoming a critical aspect of sustainable development.

Moreover, the rise of Corporate Social Responsibility (CSR) in the business world is also influencing job markets. More companies are adopting CSR policies that emphasize sustainability, leading to a growing demand for professionals who can integrate these green practices into business models. This includes managing sustainable supply chains, developing green marketing strategies, and implementing corporate sustainability practices. Companies are actively seeking individuals who can help them reduce their environmental impact while maintaining profitability, which in turn increases the need for expertise in sustainable business practices.



Additionally, the development of clean technologies in different industries is generating unprecedented employment opportunities. In the energy sector, there is



a demand for skills in renewable energy technologies like solar panels and wind turbines. The transportation sector's shift toward electric vehicles has increased the need for expertise in EV technology and infrastructure. In manufacturing, green manufacturing practices aim to minimize waste and reduce environmental impact, requiring a workforce skilled in sustainable technology application.

Lastly, governments across the globe are implementing various environmental policies and regulations, which is creating a need for experts knowledgeable in environmental legislation, policy analysis, and compliance. These regulations apply to different industries, requiring an extensive understanding and commitment to these legal frameworks, which is essential for businesses to ensure compliance as well as contribute to environmental preservation.

The cumulative effect of all these global commitments to sustainability, economic shifts towards green economies, corporate social responsibility, technological advancements, and regulatory changes underlines the multifaceted importance of green skills in the current job market. As the world struggles with challenges related to the environment, the need for such skills is expected to rise, making them a crucial component of a resilient and future-oriented career path.

1.2 Connection to Sustainable Development



Green skills are naturally linked to sustainable development, which aims to achieve a balance of economic advancement, environmental preservation, and social equity. These skills are not simply supplementary, but rather an essential element in attaining this equilibrium.

Environmental sustainability is a key aspect of sustainable development, and green skills are of the utmost importance in achieving this. These skills directly support the protection and well-being of the environment by empowering individuals and organizations to reduce their ecological impact. As said previously, competency in renewable energy technologies, such as solar and wind power, contributes to the reduction of dependence on fossil fuels and the mitigation of greenhouse gas emissions. Green skills in waste management are essential for achieving efficient recycling and trash reduction, which play a fundamental role in pollution reduction and resource conservation. Sustainable agriculture is essential for the conservation of biodiversity and the assurance of food security. These are just few examples that highlight the essential role of green skills in promoting environmental responsibility.

Green skills are also needed for ensuring economic sustainability. They promote the development of new ideas and effectiveness, resulting in substantial financial savings and the development of new business opportunities. Expertise of green energy technology not only reduces energy expenses but also facilitates the emergence of novel businesses and job opportunities. Incorporating sustainable practices across different industries guarantees lasting economic viability by effective and responsible resource utilization, waste reduction, and enhanced production. This



economic aspect highlights the potential of a sustainable economy that grows without depleting natural resources.

In terms of social sustainability, green skills play a fundamental role in promoting equitable access to resources and improving quality of life. Skills in community-based sustainable development projects help address social inequalities, providing local communities with the knowledge and tools to manage their resources sustainably. This empowerment leads to stronger, more resilient communities capable of sustaining themselves and their environment.

Furthermore, sustainable development heavily relies on education and awareness, areas where green skills are critically important. Educating individuals in green skills equips them with the knowledge to make informed decisions and fosters a culture of sustainability. The inclusion of this educational element proves essential in promoting sustainable practices and encouraging individuals to adopt ways of life that are in line with the principles of environmental conservation.

Perhaps the most significant aspect of green skills is their dual influence on the global and the local community. These skills empower individuals to make important steps towards global sustainability objectives, such as those outlined in the United Nations Sustainable Development Goals, while simultaneously tackling local environmental issues. The interconnection between global and local factors guarantees that sustainability efforts are fully based on the local context, resulting in an integrated and comprehensive approach.

2. Role of Youth Workers in Promoting Green Skills

Given the current period characterized by notable environmental challenges, the role of youth workers in fostering green skills among young people is increasingly important. Youth workers play an integral part in bridging the gap between the aspirations of young people and the practical competencies required to tackle environmental challenges. They have an essential position in influencing the next generation's understanding and involvement in sustainable activities. This engagement is necessary not only for directing the passion of young people but also for guiding them towards significant contributions in the sustainable economy.

2.1 Understanding the Youth Perspective

Understanding the youth perspective is essential for youth workers and professionals working with youth who seek to properly foster green skills. This requires an in-depth examination of the environmental aspirations, challenges, and perspectives of the younger generation.



Today's youth are increasingly aware of and passionate about environmental issues, often viewing green jobs not merely as career paths but as opportunities to make a significant impact on the planet's future. They aspire to roles that extend beyond traditional environmental sectors, encompassing sustainable practices in various industries such as technology, finance, and design. Recognizing these aspirations means youth workers can inspire and motivate young

people by showcasing the vast array of opportunities in the green sector.

However, young people frequently encounter obstacles when it comes to accessing green careers, such as limited awareness of the available green jobs, insufficient educational pathways to these careers, or a lack of practical experience opportunities. To effectively tackle these problems, youth workers can directly address them by offering comprehensive information about different green careers, creating networking opportunities with professionals, as well as organizing internships and face-to-face workshops.

The attitude of young people on environmental concerns often combines idealism with pragmatism. Young people tend to show openness towards radical sustainability measures and may actively support major modifications in behavior and policy. Nevertheless, they have also an understanding of the realistic challenges associated with making such changes. In order to provide spaces where young people may voice their ideas and take part in the development of practical and noteworthy green initiatives, youth workers must recognize and respect their points of view.

Moreover, it is essential to harmonize educational and training initiatives with the values and interests of young people. An effective approach to alignment could involve incorporating current environmental issues into the curriculum, utilizing engaging and technology-driven teaching methods, or emphasizing project-based learning that addresses practical, real-world issues. The objective is to develop programs that are not only informative but also compelling and relevant to the topics that young people are passionate about.

To foster deeper and more effective engagement with green skills, youth workers should provide opportunities that are both educational and empowering. Possible activities might include hands-on projects with tangible impacts, workshops led by young environmental activists, or platforms where youth can share their



sustainability ideas and solutions. The goal is to make learning about green skills a participatory and empowering experience, equipping young people with the knowledge and confidence to actively contribute towards a sustainable future.

Only by thoroughly understanding the youth perspective in these areas, youth workers can customize their programs to more truly resonate with young people, thereby boosting their engagement in environmental concerns and green career paths. This approach not only imparts knowledge but also enables young individuals to actively contribute to a future that is environmentally conscious.

2.2 Engaging Youth in Green Initiatives

There are several strategies and best practices that can be employed to effectively engage young people in green initiatives.

Project-based learning is a highly effective strategy that youth workers should prioritize. This approach involves creating initiatives that tackle real environmental challenges, enabling young people to apply their acquired knowledge in practical situations. For instance, potential activities may center upon local community recycling initiatives, establishing a community garden, or formulating a strategy for



reducing the carbon footprint of a community center. Projects like these not only provide practical experience but also help youngsters understand the real-world impact of their actions.

Engaging in practical tasks is an additional important approach. **Experiential activities** offer tangible benefits that enhance learning by making it more appealing and meaningful. For example, organizing visits to renewable energy plants, waste management facilities, or sustainable farming areas can provide young people with first-hand knowledge of the concrete implementation of environmentally friendly skills. Likewise, engaging in actions such as planting trees, supporting local clean-up campaigns, may foster a more profound comprehension and personal connection to the responsibility of environmental preservation.

Mentorship programs are also vital in engaging youth in green initiatives. Facilitating the connection between young individuals and mentors who are experts in green industries can offer them significant standpoints, orientation, and motivation. These mentors possess the ability to impart their personal experiences, difficulties, and accomplishments in the industry, so providing a practical perspective that cannot be obtained from books. Mentorship may occur in different

ways, such as individual mentoring, group mentoring sessions, or even virtual mentorship facilitated by online platforms.

In addition, **incorporating technology and social media** can further enhance engagement. Many young people are tech-savvy and use social media platforms regularly. Youth workers can leverage these platforms to create online communities, share resources, and organize online events or competitions related to environmental themes. This approach has the ability to expand the scope of green actions, enabling a wider range of people to participate and be involved.

Last but not least, **recognition and awards for participation in environmentally conscious initiatives** can be an excellent way to motivate individuals. Young people's confidence can be boosted and their continued participation in environmental activities can be encouraged by publicly recognizing their efforts and achievements through certificates, awards, or other forms of public recognition.

3. Framework of the Toolkit

In this next part of our chapter, youth workers will be introduced to the core components that form the foundation of our *Toolkit for youth workers*.

We will focus on two important aspects: first, **the use of the Key Competencies and Methodology Matrix**, a detailed framework designed to provide youth workers with the necessary knowledge and skills to promote green skills; and second, **the methodology and structure of the Toolkit**, which describes how these competencies are practically implemented and organized in youth work settings.

3.1 The Key Competencies and Methodology Matrix

Central to our GJG project was the elaboration of the ["Pedagogies and Competences Guidebook" \(PR1\)](#). Recognizing the essential role of youth workers in shaping future generations, PR1 sought to offer a comprehensive overview of the project's primary objective – to impart green skills for sustainable employability. This guidebook went beyond providing a superficial outline and explored in-depth the existing gaps in non-formal learning methodologies related to green skills.

To gather comprehensive insights, a data collection procedure was undertaken, incorporating extensive online questionnaires and detailed face-to-face interviews with youth workers committed to green skills and employability. A total of 130 youth workers across the three partner countries (Germany, Italy and Spain) participated in the survey research. Moreover, the data gathered from these actions were instrumental for the construction of the **"Key Competencies and Methodology**



Matrix", a tool that helped us list the important knowledge, skills, and attitudes needed to effectively teach green skills to young people.

In particular, the Key Competencies and Methodology Matrix was designed in a way to outline **essential competency areas, each accompanied by targeted skills and knowledge, recommended attitudes, and effective methodologies**, thereby providing a comprehensive framework for youth worker education and training in green skills.

Firstly, the **Environmental Awareness** competency area emphasizes understanding basic environmental science principles, current environmental issues, and their local and global impacts. The approach here is to cultivate a value for nature and curiosity about environmental changes through experiential and project-based learning methods, engaging learners actively in environmental issues.

In the **Sustainable Development** section, the matrix covers the principles of sustainable development, local sustainable initiatives, and global sustainability goals. It advocates for a commitment to sustainable practices and open-mindedness towards new solutions, employing collaborative and online learning to foster a digital and collaborative approach to sustainable development.

The **Waste Management** competency area deals with waste reduction techniques, recycling processes, and understanding the environmental impact of waste. It fosters a sense of responsibility towards waste generation and the value of recycling and reducing waste, through hands-on workshops and experiential learning, providing practical skills in waste management.

The **Renewable Energy** section addresses types of renewable energy, their benefits and challenges, and implementation techniques. Here, the matrix encourages a positive attitude toward sustainable energy and a willingness to adopt and adapt, using collaborative and project-based learning to engage youth in renewable energy projects.

In the area of **Carbon Footprint Reduction**, the matrix focuses on calculating carbon footprints, techniques to reduce them, and understanding the impact of carbon emissions. It emphasizes a commitment to reducing personal and community carbon footprints and awareness of global implications, recommending online and experiential learning for a comprehensive understanding and application.

The **Circular Economy** competency includes the principles of a circular economy, its benefits and challenges, and real-world examples. The attitudes encouraged here are valuing resource optimization and openness to innovative economic practices, with



collaborative and online learning recommended for a holistic approach to the circular economy.

Lastly, the **Climate Adaptation** section involves understanding the impacts of climate change, adaptation strategies, and the role of communities in adaptation. It encourages commitment to sustainable practices and open-mindedness to new solutions, facilitated by collaborative and online learning methods.

To sum up, the competency areas and suggested methodologies originated from the responses and real needs of the youth workers who participated in both the online questionnaire and face-to-face interviews. The GJG team aimed to design a roadmap for youth workers by collecting and designing this matrix. Nevertheless, **this matrix offers the flexibility to be adjusted and expanded according to specific needs and input**, becoming an essential resource in the field of youth work centered on environmental sustainability.

3.2 Approach and Structure of the Toolkit

The present toolkit is structured into separate chapters and explores different aspects of green skills and how they can be utilized in youth work.

The first chapter, *Introduction to Green Skills and Youth Work*, offers a basic understanding of green skills within the framework of youth work. It emphasizes the importance of green skills in the current job market, underlining how important they are in promoting sustainable development. The chapter proceeds by analyzing the essential task that youth workers play in fostering these skills among youngsters. It underscores the importance of understanding the youth perspective on environmental issues and details effective strategies for engaging them in environmentally friendly activities. It combines theoretical knowledge with practical guidance.

In the second chapter, *Core Competencies and Methodologies*, the toolkit transitions into a detailed exploration of essential competency areas such as Environmental Awareness, Sustainable Development, Circular Economy and Waste Management, and Renewable Energy and Carbon Footprint Reduction. Each section is further developed with specific skills and knowledge that youth workers must transmit. The chapter provides detailed descriptions of recommended approaches for each skill area, covering experiential learning, project-based learning, collaborative learning, and online learning. These methodologies are selected based on their efficacy in engaging and teaching young people about sustainable practices and respect for the environment.



The third chapter, *Implementing Green Skills in Youth Work*, has the objective of giving practical guidance to youth workers on how to successfully integrate the competencies into their work through activity-based learning. This part discusses the process of developing and carrying out educational activities that are tailored for each green skill competency. It offers youth workers a detailed plan for how to put these activities into practice. The chapter includes numerous case studies and real-world examples, providing an understanding of the effective use of these skills. Additionally, it addresses the development of environmentally responsible attitudes and actions in young people, employing interactive methods like role-playing and group discussions. Furthermore, this chapter stresses the importance of monitoring and evaluation in youth work, highlighting techniques to evaluate the effects of activities and integrate mechanisms for feedback to ensure ongoing improvement.

The final chapter, *Advanced Topics and Future Directions*, explores more complex topics and offers creative perspectives. It discusses Climate Adaptation Strategies, specifically focusing on how youth workers might understand and implement measures to adapt to climate change, embracing community-based methods. The chapter additionally addresses the connection between education and employment, equipping young people for entry into environmentally conscious job markets and promoting connections with ethical businesses. It continues by looking at future developments in green skills and youth work, underscoring the significance of continuous learning and adaptation for keeping a competitive edge in such a rapidly evolving field.

The toolkit's approach and structure have been carefully planned to offer an extensive and practical guide for youth workers. It combines theoretical knowledge with practical methods and real-life examples, ensuring that youth workers are adequately prepared to educate and motivate the younger generation towards a more sustainable future. **We therefore encourage you to continue reading.**

Chapter 2 - Core Competencies and Methodologies



This chapter explores the essential competencies and methodologies necessary for effective youth work in the realm of environmental sustainability.

Our focus will be on four key areas - *Environmental Awareness, Sustainable Development, Circular Economy and Waste Management, and Renewable Energy and Carbon Footprint Reduction*. Each part has been thoughtfully designed to offer both the fundamental skills and knowledge necessary in these fields, as well as an understanding of how these skills directly relate to the emerging green job market.

Moreover, we will explore the useful approaches suggested for teaching these skills as we move through each competency, including Online Learning, Project-Based Learning, Collaborative Learning, and Experiential Learning.

1. Environmental Awareness

1.1 Skills and knowledge

A good understanding of the underlying principles of environmental science is of the utmost importance in the field of Environmental Awareness. For youth workers, this requires investigating the fundamental principles that characterize our ecosystems, covering the complex mechanisms of energy transfer and nutrient circulation, such as the carbon and nitrogen cycles, as well as the wider dynamics that regulate the equilibrium of life on Earth. Acquiring this basic knowledge is essential, since it serves as the groundwork for understanding the complex interactions within ecosystems and how they are critical in supporting life.



Beyond these basics, it's imperative to foster a **deep understanding of different ecosystems**, including forests, oceans, and freshwater systems. This exploration is not just about the characteristics of these ecosystems but also about their interdependent nature and the vital role of biodiversity in maintaining ecological balance. Youth workers equipped with this knowledge can effectively communicate the importance of diverse habitats and the necessity of preserving ecosystem health to young people.

Another significant area involves **understanding the effects of human activities** on the environment. Youth workers must be knowledgeable about the ways that pollution, deforestation, and urbanization are changing the environment. Recognizing this concept proves crucial for formulating and supporting policies that reduce environmental harm and support sustainable practices. Youth workers should teach young people the value of responsible stewardship and the repercussions of human behavior by emphasizing these effects.

Finally, it is critical to **address existing environmental concerns**. This involves a comprehensive look at global challenges like climate change, including its many facets such as global warming, rising sea levels, and changing weather patterns. Here, youth workers may bring light on effective tactics for protecting endangered species and natural ecosystems. Conservation efforts also play a major role in this conversation. Youth workers may impart an in-depth overview of the current environmental situation by incorporating topics such as plastic pollution and over consumption of resources. This approach can inspire youngsters to actively and consciously participate in addressing these challenges.

1.2 Green Job Relevance

In the context of Green Job Relevance, the knowledge imparted in the Environmental Awareness section is not only fundamental for understanding ecological principles but also directly applicable to a range of career paths in the green job sector. Having this knowledge, youth workers are in an ideal position to direct young people towards significant and influential professions in areas such as environmental consulting, conservation management, and various roles within governmental and non-governmental environmental organizations.



In the field of **environmental consulting**, the deep understanding of environmental science fundamentals and human impacts on the environment becomes a valuable



asset. Professionals in this field are tasked with advising businesses, governments, and other organizations on how to minimize their environmental impact, comply with environmental regulations, and implement sustainable practices. They require a comprehensive understanding of ecosystem dynamics and the ability to analyze and mitigate environmental risks. Youth workers can explain how the skills and information acquired in environmental awareness can be immediately put into practice to the actual problem-solving and strategic planning needed for environmental consulting roles.

When it comes to **conservation management**, the knowledge about ecosystems, biodiversity, and conservation efforts is directly relevant. Conservation managers are responsible for protecting and managing natural habitats and ensuring the sustainability of wildlife populations. They need to understand the intricate balance of ecosystems and how human activities can disrupt this balance. Youth workers can show how a career in conservation management is not only about preserving the beauty and diversity of nature but also about ensuring the longevity and health of our planet's ecosystems.

Furthermore, numerous roles in **governmental and non-governmental environmental organizations** benefit from a strong foundation in environmental awareness. These roles might range from policy development and implementation to research and advocacy. Governmental bodies often require experts who can help develop and enforce environmental policies, while non-governmental organizations need professionals who can drive environmental initiatives, raise awareness, and engage in conservation activities. Youth workers can demonstrate to young people the diverse range of possibilities available for them to apply their environmental knowledge for the benefit of society by highlighting these opportunities.

Through comprehending the significance of environmental awareness in green jobs, youth workers are not just passing theoretical knowledge, but also providing access to a horizon of prospects where young people can effectively employ this knowledge. This understanding empowers the next generation to not only be informed about environmental issues but to also actively participate in resolving them through numerous professional pathways.

1.3 Recommended Methodologies

According to our project matrix, the Environmental Awareness area places a special focus on the methodologies of Experiential Learning and Project-Based Learning as essential approaches for efficiently imparting knowledge and skills to youngsters. These methodologies are well-suited for the environmental area, as they emphasize practical, experiential learning and the application of theoretical knowledge in



actual-life scenarios, which are essential to enhancing awareness and developing skills.

Experiential Learning is a method that immerses learners in direct experiences as a means of learning. In the context of environmental awareness, this could include activities such as visiting natural habitats, ecological reserves, or environmental conservation projects. For instance, youth workers could organize field trips where young people engage in activities like water quality testing in local rivers or conducting biodiversity surveys in nearby forests. These experiences will provide learners with the opportunity to directly observe the topics they have learned, such as the dynamics of ecosystems or the effects of human actions on the environment. Through direct interaction with the natural world, learners can better understand the importance of protecting the environment.

Project-Based Learning complements experiential learning by encouraging learners to undertake comprehensive projects that require applying their knowledge to solve real-world environmental problems. This approach could involve projects like conducting environmental impact assessments for proposed development projects or initiating community conservation projects. For example, learners could be tasked with developing a plan to restore a degraded habitat or organizing a community recycling initiative. Projects like these allow learners to not only apply their theoretical knowledge but also develop critical abilities such as problem-solving, teamwork, and project management — skills that are very valuable in green jobs.

Both Experiential Learning and Project-Based Learning are designed to link environmental theory to practical application, providing a bridge between education in the classroom settings and real-world environmental work. These methodologies not only enhance the learning experience but also prepare young people for careers in the environmental sector by giving them a taste of the tasks and challenges they might encounter in their professional lives.

Youth workers can make sure that learning is interesting, applicable, and practical by using these approaches. They will provide young learners with both information and the ability to contribute effectively to environmental conservation and sustainability initiatives in their future professions, while also instilling confidence in them.

2. Sustainable development

2.1 Skills and knowledge

Within the context of Sustainable Development, it becomes essential for youth workers to possess an extensive knowledge that includes the economic, social, and



environmental aspects. This will enable them to effectively transmit this knowledge to young people.

Understanding **Economic Sustainability** is crucial, involving knowledge about achieving economic growth in harmony with environmental conservation. Youth workers should be adept in concepts of green economies, where economic activities are conducted with mindfulness towards resource efficiency and minimizing environmental impact. This includes familiarization with sustainable business models and practices that promote economic development while preserving ecological balance.

In terms of **Social Sustainability**, it's essential for youth workers to appreciate how sustainable practices enhance the quality of life and ensure equitable access to resources. They should be knowledgeable about the elements of social justice, community development, and the equitable distribution of resources. In order to encourage youth to support and participate in the creation of inclusive and socially just communities, this element is essential.

Environmental Sustainability knowledge encompasses the conservation and sustainable management of natural resources and ecosystems. Youth workers must understand the importance of biodiversity conservation, responsible natural resource management, and addressing environmental degradation. Such knowledge is a key in fostering a sense of ecological responsibility and protection among young individuals.



Familiarity with **Global Sustainability Goals**, such as the United Nations Sustainable Development Goals (SDGs), is also vital. Youth workers should understand how these goals serve as a global blueprint for sustainability and how local actions can make a significant contribution to these global objectives.

Lastly, an understanding of the impact of **Local Sustainable Initiatives** is paramount. Youth workers should be able to identify successful local sustainability projects, understand the role of community involvement in sustainable practices, and guide young people to actively participate in these initiatives.

Youth workers may inspire and educate young people about the value and real-world implementation of sustainable practices by becoming proficient in these many, yet related, facets of sustainable development. This extensive resource of

information enables young individuals to actively engage in the sustainable development of their communities and make significant contributions to global sustainability efforts.

2.2 Green Job Relevance

Within the framework of Sustainable Development, understanding the significance of this field in relation to the green job market is essential for youth workers. It provides helpful insights into opportunities for young people to pursue fulfilling careers that are in line with sustainable principles. However, it requires an extensive understanding of how the concepts of sustainable development are used in different professional fields.

Sustainable Development Planning is a key career area where professionals focus on creating strategies and frameworks for sustainable growth. This involves roles in urban and regional planning, corporate sustainability strategy, and environmental consulting. It is important for youth workers to explain to young people that this profession necessitates a solid understanding of how to effectively manage the interplay between economic advancement, environmental preservation, and societal welfare. It involves formulating lasting visions and strategies that encompass all dimensions of sustainability.

In the realm of **Policy-making**, professionals are involved in the development, analysis, and implementation of policies that foster sustainable practices. These roles



are often found within government bodies where policy experts are essential for drafting and enforcing legislation and regulations that guide society towards sustainable practices. Youth workers have the ability to assist young individuals in recognizing the complex interconnection between environmental issues, economic strategies, and social interactions, and appreciate the significance of this knowledge in developing sustainable policies that are both effective and influential.

Careers in **International Development Agencies** offer opportunities to work on a global scale, addressing broad sustainability challenges. These roles may encompass project design and implementation, research, and stakeholder collaboration, including work with governments, NGOs, and local communities. Youth workers can highlight how these careers are not only about implementing sustainable



practices but also about addressing global challenges such as poverty, environmental degradation, and inequality.

Through the exploration of different career options, youth workers may offer a coherent and realistic perspective on the fundamental role of sustainable growth in diverse professional domains. Acquiring this knowledge is crucial for young people to fully understand the wide range of employment possibilities available in the green job market that are in line with sustainable development objectives. It empowers them to envision a future where their professional efforts can contribute significantly to sustainable development, both locally and globally.

2.3 Recommended Methodologies

In the area of Sustainable Development, the recommended methodologies of Collaborative Learning and Online Learning play a crucial role in effectively imparting knowledge and skills to young people. Understanding these methodologies equips youth workers to create engaging and relevant learning experiences.

Collaborative Learning is a powerful approach, particularly in the context of sustainable development. This method involves learners working together in groups to tackle projects or solve problems. In the scope of sustainable development education, this could be manifested through collaborative activities that simulate realistic sustainable development situations. For example, youth workers can organize activities where youngsters collaborate to develop a sustainable community plan or work on a project that addresses a local environmental issue. This methodology not only improves learners' comprehension of sustainable development principles but also develops essential abilities such as collaboration, communication, and critical thinking. Collaborative initiatives reflect the daily aspects when working in sustainable areas, where collaboration and combined efforts are frequently necessary.

Online Learning opens up a vast array of resources and learning opportunities, particularly beneficial in the field of sustainable development. Through online platforms, learners can access a wealth of information on global sustainability issues, initiatives, and best practices. Youth workers can leverage online courses, webinars, and interactive platforms to provide young people with up-to-date knowledge about global sustainable practices and job opportunities in the green sector. Online learning also facilitates connections with global sustainability networks, allowing young learners to engage with experts, participate in online forums, and collaborate on international projects. This broadens their perspective, helping them understand sustainability from a global context and how local actions tie into worldwide efforts.



PLAYING FOR THE FUTURE, Sustainable Development Games, is an excellent online resource that provides youth workers with suggestions for games that may be incorporated into their non-formal sessions focused on exploring the Sustainable Development Goals (SDGs). It can be found [here](#).

Another great online platform is *Teach SDGs*. It offers a carefully selected collection of videos related to the Global Goals, and provides updated information given by the UN Global Goals community. The objective is to establish a relationship with educators worldwide who are committed to taking action in education to achieve the Sustainable Development Goals. It can be found [here](#).

Implementing Collaborative Learning and Online Learning in Sustainable Development education ensures that learning is not only interactive and collaborative but also globally informed and forward-thinking. Youth workers employing these methodologies can create dynamic learning environments that prepare young individuals not just theoretically, but also practically, for their future roles in the world of sustainable development.

3. Circular Economy and Waste Management

3.1 Skills and knowledge

In the area of Circular Economy and Waste Management, youth workers need a comprehensive set of skills and knowledge to effectively guide young people in understanding and participating in these fundamental aspects of sustainability.

The circular economy is a model that contrasts with the traditional linear economy of 'take, make, dispose.' Youth workers should understand and be able to transmit the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems. This include an understanding of product life cycles, sustainable product design, and systems thinking.

The concept of resource efficiency has vital implications in the circular economy. It includes understanding methods to minimize resource use, decrease waste generation, reuse products, and recycle resources. Knowledge in this area enables youth workers to teach young people about the importance of resource conservation and sustainable consumption patterns.

A key aspect of waste management is reducing the amount of waste generated. Youth workers need to know about strategies for waste reduction, such as

encouraging the use of reusable products, promoting responsible consumption behaviors, and understanding the environmental impact of waste.

Moreover, understanding recycling processes is fundamental in waste management education. This includes knowledge of how different materials are recycled, the importance of separating waste for recycling, and the role of recycling in reducing the need for raw materials and conserving natural resources.



Finally, waste-to-energy is a method that involves producing electricity or heat by processing waste. It will be good for youth workers to be familiar with the basic concepts of waste-to-energy processes, their role in waste management, and their implications for sustainability.

3.2 Green Job Relevance

There are various career paths that youth workers can promote in the context of Circular Economy and Waste Management.

For instance, **Waste Management Careers** sector offers a range of job opportunities focused on managing and reducing waste. Professionals in waste management are responsible for overseeing waste collection, treatment, and disposal processes. They also play a crucial role in developing and implementing waste reduction strategies and public awareness campaigns. Youth workers can emphasize careers in municipal waste management, environmental consultancy specializing in waste reduction, and roles within waste treatment facilities.

Recycling coordinators have an important role in managing community or organizational recycling programs. This career path involves organizing recycling efforts, educating the public about the importance of recycling, and working to increase recycling rates. It also includes overseeing the collection and processing of recyclables, and collaborating with various stakeholders to improve and expand recycling programs. Youth workers can highlight this role as a direct application of knowledge in recycling processes and sustainable waste management.

Moreover, in the growing field of sustainable product design and resource management, professionals focus on creating products that are designed for longevity, reusability, and recyclability, aligning with circular economy principles. These roles can be found in various industries, from manufacturing to technology, where there's a focus on minimizing environmental impact throughout the product life cycle. Youth workers should point out how these careers require an



understanding of sustainable design principles, resource efficiency, and environmental impact assessment.

Youth workers can give young people a clear picture of how their interests in sustainability and their education can lead to fulfilling professions by highlighting various job possibilities in waste management and the circular economy. These jobs not only allow individuals to contribute to the conservation of the environment but also provide the opportunity to be involved in innovative ideas for sustainability and resource management. Having this comprehension is essential for motivating young individuals to choose career options that are in line with their beliefs and objectives in making a meaningful contribution to a more sustainable world.

3.3 Recommended methodologies

In educating young people about Circular Economy and Waste Management, the methodologies of Hands-on Workshops and Experiential Learning are particularly effective. These approaches offer practical tangible experiences that are essential to mastering the complexities of waste management and circular economy ideas.

Hands-on Workshops methodology involves engaging learners in practical activities where they can apply their knowledge in a tangible setting. For instance, youth workers can conduct workshops on designing and implementing waste reduction plans for local businesses or communities. These workshops could include activities like conducting waste audits to understand the types and amounts of waste being produced, and then developing strategies to reduce, reuse, and recycle this waste. Such hands-on experiences are invaluable in teaching the practical skills needed for careers in waste management and recycling coordination, as they mirror the tasks and challenges faced in these fields.

The **Experiential Learning** approach enables learners to acquire experience by directly engaging with situations from everyday life. In the context of Circular Economy and Waste Management, this may entail doing visits to recycling centers, waste management facilities, or organizations known for their sustainable practices in product lifetime management. Directly participating in such activities can offer significant understanding of waste collection, sorting, recycling, and the complicated processes of sustainable waste management. It also offers an opportunity to see circular economy principles in action, such as how products are designed for easier recycling or how materials are reused in innovative ways.

When employing these approaches, youth workers can create a dynamic and engaging learning setting that not only transmits academic information but also equips young people with the necessary skills for the practical aspects of environmentally-friendly employment in this field. The incorporation of hands-on



workshops and experiential learning activities provides practical applications for the ideas of Circular Economy and Waste Management, enhancing the relevance and effectiveness of the learning process for young individuals aspiring to enter these crucial areas of sustainability.

4. Renewable Energy and Carbon Footprint Reduction

4.1 Skills and Knowledge

Youth workers need a wide range of skills and expertise in the field of Renewable Energy and Carbon Footprint Reduction in order to effectively mentor young people in these essential areas of environmental sustainability.

An essential part of this education is **understanding the various forms of renewable energy**, such as solar, wind, hydroelectric, geothermal, and biomass. Youth workers



should be knowledgeable about how these technologies harness natural processes to produce energy, the benefits of each type, and their applicability in different contexts.

It's crucial to **discuss the advantages of renewable energy** over traditional fossil fuels. This includes not just environmental benefits such as lower greenhouse gas emissions and fewer ecological degradation, but also economic and social benefits like as green creation of employment and energy security.

While renewable energy offers many benefits, there are also challenges in its implementation. Youth workers should understand and explain these challenges, which can include technological limitations, initial investment costs, and the need for infrastructure development. Engaging in a discussion about these problems offers a practical viewpoint on the requirements for shifting to renewable energy sources.

Moreover, understanding how to **calculate a carbon footprint** is imperative in the field of carbon footprint reduction. It is important to know the elements that contribute to carbon emissions, including energy usage, transportation, and consumption habits. It is essential for youth workers to have the ability to teach individuals and organizations on the techniques of calculating and monitoring carbon footprints.

Along with calculating carbon footprints, it's important to know how to reduce them. This includes strategies like energy conservation, switching to renewable



energy sources, improving efficiency in transportation and buildings, and adopting more sustainable consumption and lifestyle habits.

Providing youth workers with competence in these areas guarantees their ability to efficiently inform young people on renewable energy and the reduction of carbon footprint. Taking advantage of this learning is of utmost importance, as it serves a dual purpose of increasing knowledge about environmental concerns and equipping young individuals with the necessary skills to actively participate in creating a more sustainable future.

4.2 Green Job Relevance

The renewable energy industry offers a wide array of career opportunities, particularly in sectors like solar and wind energy. Youth workers should inform young people about roles such as solar panel technicians, who install and maintain solar panels, or wind energy technicians, responsible for the upkeep of wind turbines. These careers are not only technically oriented but also contribute significantly to the advancement of sustainable energy solutions. Additionally, roles in renewable energy research, development, and policy are fundamental for the continual innovation and implementation of these technologies.

Another key career path is that of a **sustainability consultant**. These professionals work with organizations to develop strategies for more sustainable business practices. This work can include reducing energy use, implementing renewable energy systems, and advising on sustainable supply chain management. It is important for youth workers to emphasize the vital function of sustainability consultants in connecting environmental objectives with business practices, thereby integrating sustainability as a fundamental component of organizational strategy.

Jobs that prioritize carbon management and reduction are becoming more and more essential in the current environment of climate change. These roles involve developing and implementing strategies to reduce carbon emissions, such as energy efficiency programs, carbon offset initiatives, and climate action planning. Youth workers can discuss how professionals in this field work within various sectors, from corporate settings to government agencies, contributing significantly to reducing the effects of climate change.

Young people who are already working in the field may bring insight into practical implications of renewable energy and carbon footprint reduction by talking about these careers. This accomplishes dual task: it clarifies the relevance of environmental education to current issues and encourages young people to think about futures where they can make a difference in the fight against climate change and for the preservation of the planet as a whole. A more sustainable world is within reach, and

these positions provide a chance to combine career goals with the moral need to protect the environment.

4.3 Recommended methodologies

The key findings of our research have shown that project-based learning and collaborative learning are two of the most successful approaches to teaching learners about renewable energy and reducing their carbon footprint. They not only facilitate a deeper understanding of the subject matter but also help young people learn more about what is being taught, while reflecting the difficulties and opportunities of working in green employment in real life.

Collaborative Learning methodology is particularly valuable in the field of renewable energy and carbon footprint reduction, where teamwork and collaboration are often key to success. By working together, learners can combine their diverse skills and perspectives to tackle complex problems.

For example, youth workers can organize *Renewable energy challenge game*. They can create a game where groups of learners compete to design the most efficient and cost-effective renewable energy system for a given scenario, such as a school, or local park. This could involve researching different types of renewable energy, calculating costs and energy output, and presenting a proposal. The game encourages teamwork, problem-solving, and a practical understanding of renewable energy solutions.

Youth workers can conduct workshop where learners work in teams to calculate their own carbon footprints using online calculators or worksheets. Then, they can challenge them to come up with a collaborative plan to reduce their collective footprint. This activity may include brainstorming lifestyle changes, or promoting sustainable practices.

There are numerous free, very simple tools available on the Internet to calculate your own personal carbon footprint in just a few minutes. The calculator offered by the [UN](#) considers aspects of the home — type of housing, size, energy efficiency, etc. —, our usual mode of transport and our lifestyle, such as consumption of meat and local products, or management of [food waste](#) and [technological waste](#).

In addition, something interesting for youth workers to include in their workshops, could be a *Kahoot! Quiz game*, covering topics in renewable energy, carbon reduction, and environmental sustainability. This can be a fun way for teams to test and expand their knowledge while fostering a competitive spirit.

Moreover, the application of **project-based learning** in these fields allows learners to engage in practical, hands-on projects that reflect real-world scenarios. Youth



workers can guide young people in projects such as designing a small-scale renewable energy solution for a local community space or developing a carbon reduction plan for a school or neighbourhood. This methodology not only provides practical experience but also develops critical skills such as project management, problem-solving, and technical analysis – all of which are highly relevant to careers in the renewable energy and sustainability sectors.

Through the integration of Collaborative Learning and Project-Based Learning into the educational process, youth workers guarantee that young people become active participants in their learning process rather than only recipients of knowledge. These techniques enhance the learning process by increasing engagement and relevance, equipping young people with the necessary skills and experience for future employment in renewable energy and reducing carbon footprints. The active and cooperative method is essential for fostering the upcoming cohort of individuals dedicated to environmental conservation and sustainability careers.

Chapter 3 - Implementing Green Skills in Youth Work



1. Introduction to the chapter

Climate change – is the biggest global challenge that we as humanity are facing. However, as with every challenge, it contains opportunities for development and improvement for those who are ready to notice them and learn and work towards them. Since the transition to green energy is a key part of the solution, right now around the globe industry is shifting towards more sustainable ways of production.



But to accomplish such a huge shift on all levels of the system, people working on this change are needed. The data from the article released by the UNDP Ghana shows, that the demand for green skills is growing as the world transitions to a more sustainable economy.

“By 2030, an estimated 8.4 million jobs will be created for young people by the green transition. This is expected to have a spiral of additional jobs created by each green job at an estimated 1.4 more jobs. However, an estimated 60 percent of young people globally will lack the skills necessary to thrive in the green economy in 2030.

The transition to a low-carbon, resource-efficient economy requires systemic changes that will result not only in new products and services but also in changes in production processes and business models. The greening of the economy will have significant impacts on jobs and inevitably change the skillsets required and the tasks involved in many of the existing occupations”.

Changes in climate, industry, and job sector are happening right now, that’s why now – is the moment to focus on educating youth and youth workers and intensify raising awareness on the topic. For youth to be able to use opportunities that the green job sector is creating, a set of skills and competencies is required. It is important to implement and cover new “green” topics on all levels of education: formal, and informal, as well as provide reliable sources for self-education. In this module, we’ll be focusing on different practices and approaches, which implementation can help youth and youth workers close gaps in knowledge on the topic and then use it to raise awareness in their communities. We’ll also cover the most essential green skills and provide a range of practices to educate about them.

“The reality of young people, as diverse as it is on a global scale, has many commonalities: greater vulnerability in living conditions, lower salaries and greater difficulties to emancipate, uncertainty about the near future, unequal access to higher education, among others”, stressed Marc Collado, member of the Green Jobs Working Group of the official children and youth constituency to UN Climate Change (YOUNGO).

Regardless of the selected career path, there are also universal green skills and knowledge that are needed by every young person, who wants to build a successful and sustainable life in a world of climate change consequences.

2. Activity-Based Learning

Based on the article by the United Nations: “Green skills include technical knowledge, expertise and abilities that enable the effective use of green technologies and processes in professional settings. They draw on a range of knowledge, values, and attitudes to facilitate environmentally sustainable decision-making at work and in life. Although green competencies are relevant for people of all ages, they are of



greater importance for younger people, who can contribute to the ecological transition over a long time.”

One might ask, what exactly the green skills are, that we need so much for a sustainable and safe future. Referring to the article by UNDP Ghana, which we already quoted before:

Green skills encompass the knowledge, abilities, values, and attitudes needed to live in, develop, and support a sustainable and resource-efficient society. These include skills in areas such as renewable energy, energy efficiency, waste management, water conservation, sustainable agriculture, and environmental protection. The jobs of the future which are largely green also require many soft skills that deal with the multi-dimensional and complex nature of the problems the world is faced with. Skillsets such as problem-solving, communication, and green projects often require the collaboration of people from different disciplines as well as adaptability and agility.

A more detailed explanation regarding the set of required skills and competences can be found in the “Key Competencies and Methodology Matrix” prepared by "Bridging Europe" together with “Asociación Crecimiento Verde”, "Gli Amici di Puck" in frames of the “Pedagogies and Competences Guidebook”. There one can find a detailed table with a list of all the competences needed to successfully close the gap in green skills. “Key Competencies and Methodology Matrix” shows and explains such aspects of green skills as:

- **Environmental Awareness Sustainable Development**
- **Waste Management**
- **Renewable Energy**
- **Carbon Footprint Reduction**
- **Circular Economy**
- **Climate Adaptation**

Each listed category contains required skills & knowledge, as well as attitudes and recommended methodology.

As climate change is a complex and multidimensional phenomenon, that affects humanity on different levels – ecological, socio-economic, cultural, and political – green skills also aim to cover a wide range of competencies. In this module we’ll be focusing on the activities and practices, which can be adjusted, based on the specific competence, you would like to focus on. Through the following activities and cases, we’ll discover, how youth workers can initiate a productive climate change dialog,



how to start and manage a climate action, that will have long-term and sustainable results, and through which activities youth can be motivated and involved to be a part of a positive change.

Before we take a closer look at the toolkit of activities, we first need to define, what “Activity-Based Learning” is and what the advantages of this educational approach are.

Activity-based learning is an educational methodology that prioritizes hands-on,



interactive experiences over traditional lecture-style teaching. This approach urges students to actively participate in the learning process through diverse activities like experiments, projects, discussions, and collaborative tasks. It is a dynamic process that involves learning through performing tasks and activities, moving away from passive listening and note-taking. In this method, students engage in their own learning experiences through practical activities, fostering

skills such as critical analysis, problem-solving, and creativity.

These are some of the many advantages of implementing activity-based learning:

- **Enhanced Engagement:** Students are actively involved in the learning process, which often leads to increased interest and motivation.
- **Development of Critical Thinking Skills:** Activity-based learning promotes the development of critical thinking, problem-solving, and decision-making skills as students encounter and address challenges.
- **Promotes Collaboration:** Activities often involve collaboration and teamwork, fostering interpersonal skills and the ability to work effectively with others.
- **Real-world Application:** Activities often simulate real-world situations, enabling students to see the practical applications of what they are learning in the classroom.
- **Long-lasting Understanding:** The experiential nature of activity-based learning often leads to a deeper and more lasting understanding of concepts, as students connect theoretical knowledge to practical experiences.
- **Prepares for Lifelong Learning:** By emphasizing active engagement and independent thinking, activity-based learning helps prepare students for a lifelong learning mindset, where they are comfortable seeking knowledge and adapting to new challenges.



Now let's focus on examples of activities and common mechanisms, one can implement to ensure an activity-based learning approach for green skills.

2.1 Designing and Implementing Activities for Each Competency

The game can be a powerful tool for interactive and involving educational processes. In this part of the module, we would like to share examples of activities, which were designed as a part of a “Compass Manual” and can be a great help to organize non-formal learning-based activities on the topic of climate change. Compass was first published in 2002 within the framework of the Human Rights Education Youth Programme of the Directorate of Youth and Sport of the Council of Europe. It covers a wide range of topics, including the environment, while showing interconnection with other areas, such as environment and migration, or environment and education.

On the official website, one can also find theoretical information on climate change and examples of consequences, the link between human rights and the environment, as well as the collection of useful organizations and links, and hints on addressing the problems. <https://www.coe.int/en/web/compass/environment>

“3 things” – climate and migration

Activity “3 things” focuses on migration in general and creates a space for participants to imagine, as if they were to leave their homes once and forever. With the help of a facilitator, participants imagine the situation vividly and then are asked to choose 3 things they would take with them if they knew, they would never come back. Through the reflection, participants focused on their feelings and with the help of empathy embraced the experience of millions of people around the globe. But this activity also opens the space to closely observe the link between climate change and migration. According to the data by the UN Refugee Agency:

“In 2022, an estimated 32 million people were displaced within their own countries by extreme weather events such as floods, storms and drought. If serious action is not taken immediately, this number is predicted to increase to over 200 million people displaced annually by 2050”. For refugees and displaced people, climate change is a crisis on top of a crisis — forcing people to flee, often for a second or third time, in search of safety and resources. What makes things even more complicated is the fact, that “climate refuge” is not a legal term in most countries, which puts people in even more vulnerable positions, and often leaves without proper help. Activity “three things” covers a wide range of consequences of climate change, while making the experience of participation very personal, involving them in the discussion and further research.

“Climate justice” board game



The topic of climate justice should be an important part of the conversations/educational activities on climate change. We recommend developing a simple board game based on the following article: <https://www.concern.net/news/climate-injustices> . During the game, participants receive cards with different scenarios from the article, representing various examples of climate injustice, and then they are asked to discuss with the team and come up with a possible solution. The advantage of this game is the wide range of topics it covers: participants learn about the current problems with access to clean water in different regions, forest fires, or deforestation while keeping a focus on the human and social aspects of the issue. They learn that countries with the lowest contribution to global CO2 pollution happen to suffer the most from the climate change consequences and start a dialog on how these issues should be addressed and how the current policies have to be changed. We recommend including the following scenarios:

- Rising sea levels and imminent threat of flooding; (also covers topics of mitigation and adaptation and investment for the low-income communities);
- Simulation of the annual "Global Climate Summit";
- Traditional lands of an indigenous community are threatened by a mining company seeking valuable resources;
- Large chemical factory has been operating for decades. Recent studies reveal that factory emissions disproportionately affect the health of the nearby low-income community.

This game aims to initiate a discussion and further participants' research. Seeing climate change as not only a set of data and numbers, but as a personal story, affecting people differently, but globally, involves participants on a personal level, also showing the environmental problems of their local communities in a new light.

“Web of life”

Another activity from the mentioned above “Compass Manual” with a focus on a biodiversity and a links in a global food web. This activity is divided into 3 parts: part 1 – building the web of life; part 2 – its destruction; part 3 – a brainstorming activity of actions to protect the environment.

Participants stand in a circle to build a symbolic "web of life." A ball of string is passed across the circle, each participant is asked to name a new creature (plant, insect, animal, bird, fish, mushroom, etc.), that is connected with the previous in terms of ecosystem (like cabbage - caterpillar). Together participants create a crisscross mesh representing the interconnectedness of ecosystems.



In the next phase, participants identify threats to the web, such as plastic pollution, burning of fossil fuels, or over-fishing, releasing the string after each contribution. Reflecting on the tangled threads, they are reminded that positive actions, like saving electricity or consuming less meat, can still rescue something from the present environmental challenges, despite the irreversible nature of extinctions.

Understanding the importance of biodiversity and interconnection and interdependences of all species included in the ecosystem (humans as well), participants learn to notice those connections and perceive the world around them as a global and holistic system. With such an attitude, youth can better see how their actions and daily choices affect not only their local community but have a long-lasting effect with global consequences.

Simulation game “Makah whaling”

This activity involves small group work, role-play, discussion and consensus building about the issues of:

- The sustainable use of marine resources
- The rights of indigenous peoples to freely determine their economic, social and cultural development

This activity simulates a situation, when the decision should be made, taking into consideration the needs and interests of the local indigenous community and environmental requirements. It centres on a wish by the Makah nation to resume whaling and the opposition to this from conservationists and others.

According to the game, confrontation has been going on for many years and the legal costs are escalating without producing a lasting result. The conservationists have used reckless methods that have put their own and other people's lives at risk and some members of the Makah are so frustrated that they have broken the law and whaled illegally. It is a very unsatisfactory situation for all and it seems to be time that the parties try to get together to see what they have in common and to find a solution.

Through this interactive discussion and role-play participants will be able to explore perspectives and needs of different stakeholders involved in the conflict. This is an important experience that presents the complexity of finding a balance between all the different needs and interests, but also gives a personal touch to the simulation, since participants not only observe the situation from outside but become a part of it, representing and protecting in a way their interests.

2.2 Case Studies and Real-World Examples

Another important and powerful practice to implement into activity-based learning is case studies.

Case studies: “A case study is an in-depth, detailed examination of a particular case within a real-world context.”

The strength of case studies lies in their capacity to capture the complexity and uniqueness of the subject under examination without oversimplifying or making



broad generalizations. These studies explore diverse dimensions, including historical, cultural, social, and psychological factors that influence the situation. Moreover, case studies reveal how various stakeholders experience and respond to the phenomenon. In terms of climate change and green skills, is not enough to just explore global average statistics and get acquainted with data to fully understand the complexity of the subject. And also real-world examples keep participants personally

involved, which results in their active and long-lasting interest.

An important part of working with youth is to make them engaged and motivated to keep learning more on the subject, even after the workshop/training/conference is over. Examining examples of climate change challenges, implemented policies, and undertaken actions can become a great source of motivation and call for action, that participants will further implement in their local communities. We would highly recommend bringing your attention to:

- “Climate Policies with Real-World Results” – article with data collected by the World Bank. Examining the following cases gives a comprehensive overview on already implemented policies and what was the key to their success.
- Climate stories project – is a whole website /blog that cover a wide range of topics and highlight investments, solutions, and innovations that have made a real difference in the lives of people, communities, and economies. For youth to see what successful climate action looks like is a great opportunity to learn and get inspired to initiate their action, having a successful example.
- “Climate-ADAPT: 10 case studies How Europe is adapting to climate change” brochure is a unique collection of 10 European case studies showcases measures that are already being carried out in Europe to increase resilience to extreme weather and slow-onset events, as well as improve adaptation to climate change. This brochure aims to raise awareness of what is possible and inspire the creation of new activities to deal with observed and expected climate change impacts.



We also encourage youth workers to do their research on successful ecological projects, especially – on the projects carried out in their home countries. Bringing awareness to already existing initiatives and projects will bring more young people to contribute to climate change actions on the local level, which will have long-lasting effects far beyond their community.

3. Developing Green Attitudes and Behaviours

3.1 Encouraging Sustainable Lifestyles among Youth

As it was mentioned earlier, green skills are very much about developing “green attitudes”. It is way more than understanding how the solar panels work, or how exactly the water conservation is managed. In the first place, green skills require a shift in the mindset, consumption patterns, and daily choices, which may seem small, but have a massive effect on the ecological system we are a part of. With the activities we shared earlier and examples of the case studies, we aim to bring focus to the holistic nature of encouraging sustainable lifestyles among youth. Green skills extend beyond technical knowledge; they encompass a profound transformation in values, behaviors, and perspectives.

Instilling green attitudes involves fostering an understanding that sustainability is not merely a concept but a way of life. It goes beyond the knowledge of eco-friendly technologies; it encompasses mindfulness about individual and collective impacts on the environment. By emphasizing the significance of small daily choices – such as reducing waste, opting for sustainable products, and embracing energy-efficient habits – we aim to catalyze a broader cultural shift toward sustainability.



We highly recommend taking a closer look at the following article. Here you can find a detailed list of various ideas for climate change actions, which are both interactive and involving. <https://youthsustainability.org/top-ways-to-encourage-sustainability-at-school/>

Article lists and explains several sustainable practices, including, but not limited to:

- Encourage waste reduction.
- Promote Composting.
- Practice Energy Saving Techniques
- Bring in guest speakers and host workshops



- Coordinate Field Trips

3.2 Role-Playing and Interactive Discussions

In the part “Designing and Implementing Activities for Each Competency” we already shared examples of activities and practices, which are mostly based on role-playing and interactive discussions. There is a reason, or, to be precise, the set of reasons, why we included activities based on this approach – and now we would like to take a closer look and explain the potential of implementing role-playing and interactive discussions into the process of teaching green skills and competencies.

Role-playing and interactive discussions are powerful tools for teaching green skills as they engage participants actively, promote critical thinking, and facilitate the application of theoretical knowledge to real-world scenarios. Here's how these methods can be particularly beneficial in the context of teaching green skills:

- **Experiential Learning**

Through role playing participants can embody roles such as environmental activists, policymakers, or community members, simulating scenarios related to sustainable practices. This hands-on experience allows them to internalize concepts and gain a deeper understanding of the complexities involved in green decision-making. Open discussions enable participants to share personal experiences, challenges, and success stories related to sustainable practices. Learning from peers and engaging in conversations enriches their understanding and encourages a sense of shared responsibility.

- **Behavioural Change**

With the help of involvement in role-playing, participants can experience the consequences of different choices on the environment. This immersive learning approach helps in developing empathy and encourages a shift in mindset and behaviour towards more sustainable practices. Meantime hearing diverse perspectives during the interactive discussions fosters a collective commitment to making positive environmental changes and provides a platform for participants to reflect on their current behaviours and explore ways to adopt greener lifestyles.

- **Problem-Solving Skills**

Simulating real-world scenarios challenges participants to think critically and devise solutions for environmental issues. This problem-solving approach enhances their ability to address sustainability challenges creatively. Participants learn to analyze complex issues, consider various viewpoints, and collaboratively explore effective strategies for promoting sustainability.

- **Cultural Shift**



Simulating the societal impacts of sustainable choices helps participants grasp the broader implications of individual actions. This contributes to a cultural shift towards prioritizing environmental sustainability. Conversations about shared values and cultural norms around sustainability foster a sense of community and collective responsibility. Participants recognize the importance of societal changes to address environmental challenges.

Incorporating role-playing and interactive discussions into green skills education not only imparts practical knowledge but also nurtures a mindset of responsibility and stewardship toward the environment. These methods empower individuals to make informed decisions and actively contribute to building a more sustainable future.

4. Monitoring and Evaluation

4.1 Assessing the Impact of Activities

The evaluation system in formal education holds more recognition compared to non-formal education. Historically, assessing non-formal education presented challenges due to limited organizational capacity and a primary focus on visitor satisfaction. However, the current objective in non-formal education assessment has shifted towards a more comprehensive understanding of learning and outcomes. A common approach to assess learning in these non-formal settings involves comparing pre-and post-test scores, where students respond to content questions and express their attitudes and beliefs through scale items. Feedback sessions also play a vital part in assessing and evaluating the impact of conducted activities.

In essence, the shift in non-formal education assessment signifies a commitment to understanding the multifaceted impact of learning experiences. By combining quantitative measures like pre-and post-test scores with qualitative feedback, we can create an evaluation system that grasps the many outcomes and advantages of non-formal education. This way of assessing things not only makes the evaluation process better but also ensures that non-formal education programs keep getting better to meet what learners need and to help them grow in their personal and professional lives.

4.2 Feedback Mechanisms and Continuous Improvement

Feedback is equally important for both: participants and organizers. Feedback mechanisms play a pivotal role in fostering continuous improvement in various processes and systems. Whether in educational settings, businesses, or personal development, receiving constructive feedback is a fundamental aspect of growth. Establishing effective feedback loops allows for the identification of strengths, weaknesses, and areas for enhancement.



The process of reflection and summarizing the feedback gives participants time and space to collect their thoughts, insights, and experiences, look back on their participation, and draw a bottom line. A feedback session can be a great tool for unexpected insights when everything that was discussed is observed closely one more time. For educators feedback provides valuable insights into what works well and what needs adjustment, contributing to the on-going enhancement of educational practices. The ability to keep learning practices flexible and adjust them based on the needs, preferences, and feedback of participants is a key to ensure, that each participant will take maximum from the learning experience.

The essence of continuous improvement lies in the ability to adapt and evolve based on received feedback. It promotes a culture of learning and innovation, ensuring that processes remain dynamic and responsive to changing needs and expectations. By embracing feedback as a catalyst for growth, individuals and organizations can create a pathway to sustained improvement and excellence.

5. Conclusion of the chapter

The Green Job sector is one of the fastest-growing sectors right now, which promises many opportunities for youth employment. New jobs and vacancies open new career paths but also require the implementation of new green skills and comprehension, which often are not implemented in the traditional educational models. This module is designed to bridge that gap by emphasizing the critical role of green skills in the current job market and providing a framework for their integration into educational and training programs. Our objective is not only to highlight the significance of green skills but also to empower both youth and youth workers with the knowledge and competencies essential for thriving in environmentally conscious career paths. By addressing the specific skill sets required in the green workforce, this module aims to contribute to the sustainable development of individuals, communities, and the planet at large.



Chapter 4 - Advanced Topics and Future Directions



1. Introduction to the chapter

With all the data available on the topic of climate change and its consequences it is impossible to deny that climate change is real and happening right now. Climate involves many dimensions – science, economics, society, politics, and moral and ethical questions – and is a global problem, felt on local scales, that will be around for thousands of years. Recent data shows that climate change consequences evolve way quicker than we would have expected and hoped to. While one of the biggest challenges ever faced by humanity is unfolding right now it's also obvious that we need a comprehensive approach and active actions without further postponing. Unfortunately, according to the UN Climate action data: “commitments made by governments to date fall far short of what is required. Current national climate plans – for 195 Parties to the Paris Agreement taken together – would lead to a sizable increase of almost 9% in global greenhouse gas emissions by 2030, compared to 2010 levels. To keep global warming to no more than 1.5°C – as called for in the Paris Agreement – emissions need to be reduced by 45% by 2030 and reach net zero by 2050. Getting to net zero requires all governments – first and foremost the biggest emitters – to significantly strengthen their Nationally Determined Contributions (NDCs) and take bold, immediate steps towards reducing emissions now.”

This means that with actions and agreements implemented now, we are not on track to achieve serious changing to significantly tackle climate change. But the thing is, even if the best possible scenario will happen: international governments, corporations, and individuals will dedicate themselves and prioritize working



together to reach the Net Zero, the consequences of climate change are already there. Even if we handle it not to make things worse, we are still living and will be living for quite a long time in a world where the climate has already changed. Even in the best case possible, there are and will be numerous climate change-related challenges that humanity will need to address promptly and find a way to deal with the long-term influence of our actions on the environment. The longer adaptation efforts are put off, the more difficult and expensive responding to climate change will be. That's why it is essentially important to educate youth about Climate Adaptation Strategies and how to implement them since they will be living in the world facing those challenges. If we want to ensure that youth are ready to build a healthy and prosperous future in a challenging and changing reality of climate-change consequences, we need to focus on learning understanding and implementing adaptation measures. That's what we'll be focusing on in this chapter.

2. Climate Adaptation Strategies

2.1 Understanding Adaptation Measures

To have a deeper look at the topic we would love to start first by exploring the terms related to this chapter that will be actively used. What exactly are the “adaptation measures”, what are the possible ways to implement them and how can we ensure finding the best solution for a diverse set of various problems associated with climate change?

According to NASA, adaptation – adapting to life in a changing climate – involves adjusting to actual or expected future climate. The goal is to reduce our risks from the harmful effects of climate change (like sea-level rise, more intense extreme weather events, or food insecurity). It also includes making the most of any potential beneficial opportunities associated with climate change (for example, longer growing seasons or increased yields in some regions).

Climate adaptation is not a new concept that abruptly arose in recent years. Throughout history, people and societies have faced changes in the weather, dealing



with them to varying degrees of success. Climate changes, like prolonged dry periods, have played a role in the rise and fall of civilizations. For the past 10,000 years, the Earth's climate has stayed pretty steady, allowing our modern civilization and agriculture to develop. Our current way of life is based on this stable climate. As the climate continues to change, we'll have to adjust. The faster these changes happen, the harder it becomes to adapt.



Exploring the topic further you might come across closely related terms, such as climate resilience, which refers to the ability to prepare for, recover from, and adapt to these impacts is called “climate resilience.”

Another term that usually goes together with the topic of climate adaptation is “climate mitigation”. Again, according to NASA definition, climate mitigation – reducing climate change – involves reducing the flow of heat-trapping greenhouse gases into the atmosphere, either by reducing sources of these gases (for example, the burning of fossil fuels for electricity, heat, or transport) or enhancing the “sinks” that accumulate and store these gases (such as the oceans, forests, and soil). The goal of mitigation is to avoid significant human interference with Earth's climate, “stabilize greenhouse gas levels in a timeframe sufficient to allow ecosystems to adapt naturally to climate change, ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner”.

If to put the terms “adaptation” and “mitigation” very simply, “mitigation” focuses on actively addressing the causes of climate change, while “adaptation” deals with the climate change reality and consequences we are experiencing. It is worth mentioning, that the terms “adaptation” and “mitigation”, or “resilience” though representing different approaches to responding to the climate change challenges, cannot be separated, since both processes are equally important in tackling climate change. We cannot prioritize adaptation over mitigation or vice versa, since they can provide the best results only by implementing them together.

At this point, you could ask yourself, since climate adaptation is such an urgently important measure that needs to be undertaken... How exactly it can be implemented? In the next part of the chapter, we will bring several examples of climate adaptation measures to take a closer look at already existing successful cases.

2.2 Implementing Adaptation Measures

In the article “5 ways countries can adapt to the climate crisis” by the UN environment program, there are five key ways the world can better adapt to the climate crisis:

- **Early warning systems**

Research shows that just 24 hours warning of an oncoming heatwave or storm can reduce the subsequent damage by 30 per cent. Early warning systems that provide climate forecasts are one of the most cost-effective adaptation measures, yielding around nine dollars of total benefits for every dollar invested.

With timely warnings, people can take early action to prepare and protect their houses, or in some extreme cases, evacuate. The problem is that currently those early warning systems are mostly focusing on the floods, storms and droughts, while



heatwaves and wildfires become more common and intense and are needed to be better integrated as they.

- **Ecosystem restoration**

The advantage of the global restoration effort is, that it will not only absorb carbon but also increase 'ecosystem services' to defend the world from its most devastating impacts. In cities, restoring urban forests cools the air and reduces heatwaves. On a normal sunny day, a single tree provides a cooling effect equivalent to two domestic air conditioners running for 24 hours. On coasts, mangrove forests provide natural sea defenses from storm surges by reducing the height and strength of the sea waves. Moreover, protecting mangroves is 1,000 times less expensive per kilometer than building seawalls. Focusing on the nature-based solutions for climate change challenges is not only a way to renew an impoverished ecosystem, but also saves a lot of money.

- **Climate-resilient infrastructure**

Climate-resilient infrastructure refers to assets and systems such as roads, bridges, and power lines that can withstand shocks from extreme climate impacts. Infrastructure is responsible for 88 per cent of the forecasted costs for adapting to climate change. The reasoning is simple. More resilient infrastructure assets pay for themselves as their life-cycle is extended and their services are more reliable. Tools for encouraging investments in climate-resilient infrastructure include regulatory standards like building codes, spatial planning frameworks such as vulnerability maps, and a strong communication drive to ensure the private sector is aware of climate risks, projections and uncertainties.

- **Water supplies and security**

By 2030, one-in-two people are expected to face severe water shortages.

Research shows that investments in rainwater harvesting systems need to be sustained to make them more widely available. Investing in more efficient irrigation will be crucial, as agriculture accounts for 70 per cent of all global freshwater withdrawals. In urban centers, roughly 100-120 billion cubic meters of water could be saved globally by 2030 by reducing leaks. Governments are being encouraged to develop holistic water management plans, known as Integrated Water Resource Management, that take into account the entire water cycle: from source to distribution, treatment, reuse and return to the environment.

- **Long-term planning**

Climate adaptation solutions are more effective if integrated into long-term strategies and policies. National Adaptation Plans are a crucial governance



mechanism for countries to plan for the future and strategically prioritize adaptation needs.

A key part of these plans is to examine climate scenarios decades into the future and combine these with vulnerability assessments for different sectors. These can assist in planning and guiding government decisions on investment, regulatory and fiscal framework changes and raising public awareness.

Around 70 countries have developed a National Adaptation Plan, but this number is growing rapidly.

Climate change adaptation strategies are based on several Sustainable development goals, such as: “industry, innovation and transportation”, “sustainable cities and communities”, “climate action”. The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership.

2.3 Community-Based Approaches

Climate change cannot be solved by one person or a group of activists. Neither can it be solved simply by adopting new laws and regulations by the government. Climate



change requires a great shift in the way we live, consume, and produce at all levels, with everyone contributing to ensure that humanity will reach the objectives of the 2030 Agenda for Sustainable Development before the point of no return. But for this we need to work with communities around the globe, distributing necessary knowledge on the topic and ensuring the implementation of sustainable and inclusive solutions.

According to the international environmental organization CARE:

“Community-based approach (CBA) seeks to address broader underlying causes of vulnerability which, if left unchallenged, would prevent the achievement of resilient outcomes. CBA is about empowering vulnerable communities and their local governments and service providers to understand and analyze how the climate is and will continue to impact on their lives, make informed and anticipatory decisions on priority adaptation actions, and constantly adjust their livelihood and risk management strategies in response to new and uncertain circumstances. This is

the starting point for effective adaptation, bringing decisions under the control of those affected by them and avoiding predetermined solutions.

Community adaptation action plans (CAAPs) empower communities to make their own collective decisions on priority actions they can take to better adapt to climate change. The CAAPs contain agreed priorities and plans for adaptation for and by different groups. They are based on a series of participatory community analysis and planning discussions, starting with a climate vulnerability and capacity assessment (CVCA). The CVCA results are validated by the community as a whole leading to identification of potential adaptation actions. Gender based focus group discussions ensure that the priorities of men, women and youth are included. Focus groups deepen their exploration of critical causes of vulnerability and risk, and develop their development aspirations or goals to further refine the priority list of adaptation strategies.”

Understanding the needs of local communities, insuring equal and inclusive participation in the climate change dialogs and providing necessary support and educations is a way to address climate change promptly and holistically.

3. Bridging the Gap: From Learning to Employment

3.1 Preparing Youth for Green Jobs

Empowerment and involvement of Youth in climate change actions should be the number one priority since the consequences of climate change will continue to



heavily affect current and future generations. Youth is to face the impact of climate change but simultaneously you are to make the biggest contribution to the solution. Ensuring proper education on the topic, promoting exciting opportunities, and creating new chances are the key to long-term and inclusive climate change action. According to the European Commission:

“Labour markets are changing, and Europe’s economies need to prepare. The ‘green transition’

will transform whole industries with opportunities that will benefit both workers and the environment. It’s essential to equip young people with the knowledge and skills they need to thrive in sustainability-orientated careers.”

A good example of an existence initiative would be a collaborative initiative by the International Labour Organization (ILO), the United Nations Environment



Programme (UNEP), and the United Nations Children’s Fund (UNICEF) Generation Unlimited is focusing on educating and employing youth in the Green jobs sector.

Since the world urgently needs the transition from fossil fuels to green energy to reach NetZero and decries the harmful impact on the climate, the whole new sector is growing rapidly right now. This leads to a big demand for educated skillful specialists to join the green job sector. And again, youth, which currently searches for employment opportunities and chooses a career path, can contribute greatly, from ecological and economic perspectives. Together with young individuals, governments, social partners, employers, workers' organizations, educational institutions, and the private sector, the Pact strives for a just transition to build a sustainable economy and create meaningful opportunities for the youth by 2030. The “Green Jobs for Youth Pact” initiative concentrates on:

Green Employment and Entrepreneurship: Employers/ (youth) entrepreneurs are supported in green, circular, and sustainable business models that reduce waste, pollution and resource use while increasing the demand for skills for green jobs particularly for young people.

Greening Education and Skills: Education institutions equip young people with employable, including technical and core skills, for green jobs.

Green Empowerment and Youth Engagement: Youth are partners and supported to lead policy advocacy and the social dimension of the triple planetary crisis.

- Green Jobs for Youth Pact Targets
- Develop 1 million new green jobs.
- Transform 1 million existing roles into green roles.
- Support 10,000 young green entrepreneurs in starting their businesses.

This is just one of examples of current initiatives aiming to educate and involve more young people in the green job sector. Another source of education and skills for further employment in a Green Job sector might be a project “BerufsKlima-Workcamps”. Funded by the European Social Fund (ESF), the BerufsKlima work camps, organized by the German Climate Foundation, offer 16–25-year-olds the chance to acquire sustainability competencies that will enable them to prosper in green careers. Created by the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection, the four-day experiences give participants the opportunity to learn about sustainability and climate protection in everyday life and work. Through workshops, business games and company visits, young people are able to develop their green competencies, receive career advice and reflect on their own potential.



Similar projects are initiated and funded across the whole European Union, which underlines the increasing awareness of how important it is to equip the youth with relevant knowledge and be involved in the green energy transaction and green job sector.

3.2 Networking and Collaborations with Green Industries

Since Climate Change is a challenge bigger than any individual, organization, or government can face and solve on their own, networking and collaboration are



essential aspects in the course of working on the solution. One can ask, where then do I start to widen my network, what are the steps I need to undertake to connect with like-minded individuals and receive needed help/information? As guidance, we highly recommend taking a closer look at the article published on LinkedIn with the focus on: “How do you collaborate and network with other sustainable development researchers and practitioners?”

- Identify your goals and interests (Before you start reaching out to other sustainable development researchers and practitioners, you need to have a clear idea of what you want to achieve and learn from them.)
- Use online platforms and tools (Platforms such as LinkedIn, ResearchGate, Slack can be a great tool to find people who work on sustainable development issues that interest you, discover new publications and projects, join communities of practice or interest groups related to sustainable development and so much more).
- Attend offline events and activities (Conferences, workshops, field visits can help you meet and network with other researchers and practitioners in person, exchange ideas and experiences, build trust and rapport, and learn more about the topic.)
- Follow up and follow through (For example, after you meet or interact with someone, send a follow-up message or email to thank them, express your interest, share relevant information or resources, or propose a next step.)

We highly recommend reading the whole article and already through comments starting expanding your networking, by exchanging your feedback and ideas with other people interested on the topic. (<https://www.linkedin.com/advice/0/how-do-you-collaborate-network-other-sustainable#identify-your-goals-and-interests>)



4. Future Trends in Green Skills and Youth Work

4.1 Continuous Learning and Adaptation & Staying Ahead of the Curve

One of the challenging aspects of climate change is the amount of information and data one needs to proceed to get a full picture. Climate change is a very complex and multidimensional issue, and it feels like, the more you learn, the more related topics you discover for further research. This is fully okay and only underlines the importance of continuous learning in frames of climate change.

Continuous learning is the process of learning new skills and knowledge on an ongoing basis. This can come in many forms, from formal course-taking to casual social learning. It involves self-initiative and taking on challenges. Continuous learning can also be within an organization, or it can be personal, such as in lifelong learning.

The importance of continuous learning unfolds not only within the topic of climate change. The ability to continuously update the knowledge one poses, search for new



horizons and perspectives as well as obtain new skills is a must in a modern constantly changing, and evolving world. That's why, while we are bringing this competence in the frame of the climate change-related module, we would like to emphasize, that continuous learning should be a mindset of all youth regardless of area of studies or work. This is a key skill, which can open many opportunities for youth and shape the way they are building their career and personal path. Staying

competitive in today's global marketplace means that employees need to be innovative, adaptive, and ever-changing. Also, climate change as the biggest challenge ever faced by humanity requires innovative approaches and new, creative solutions. Innovations can only happen if we constantly challenge what we already know and continually search for new ideas and information.

Continuous learning also has the advantage of numerous ways how it can be performed, so everyone can find a way to stay ahead of the curve with the help of continuous learning.

Formal learning

Formal learning includes the ways a learner can gain new knowledge and skills via learning initiatives that have already been pre-determined, organized and implemented for a specific learning purpose or goal. This can include:



- university or college course
- training programs from within the organization
- external workshops or conferences
- e-Learning courses
- mobile learning courses

2. Social learning

Social learning includes all the ways a learner interacts, discusses, collaborates and learns from others to increase knowledge or learn new skills. This can be both formal and informal, including:

- Discussion and collaboration on social media
- Finding blogs or other resources to gain deeper insight
- Working with other co-workers
- Coaching and mentoring
- On-the-job training

Self-directed learning

Obtaining a new skill or improving your knowledge and understanding of something does not have to be restricted to formal training or working with others. Self-directed learning can include:

- Researching and reading to gain a deep understanding of a topic.
- Listening to topic relevant podcasts or watching instructional videos
- Experimentation and exploration

We would like to also bring into focus the importance of youth workers and their contribution to continuous learning in the field of green skills. To evaluate the perceived significance of youth workers in spearheading sustainable practices among the younger generation, Bridging Europe conducted a data collection procedure, incorporating extensive online questionnaires and detailed face-to-face interviews with youth workers committed to green skills and employability. A total of 130 youth workers across the three partner countries participated in the survey research (Germany, Italy, and Spain). According to the results of the research:

An overwhelming majority, with 103 participants, firmly believe that it's imperative for youth workers to actively champion sustainable practices among young individuals (79.23%);

A resounding 107 participants, 82.31%, expressed their interest in assuming the role of a green coach. This showcases a strong inclination towards proactive involvement in fostering green skills and competencies among young individuals. Such a



substantial percentage of affirmative responses is not only encouraging but also serves as a proof to the growing recognition of the significance of green education in today's world.

In summary, the survey highlights the crucial role of youth workers in advancing green skills and sustainable practices. The overwhelming support for active involvement and the expressed interest in becoming green coaches reflect a growing dedication to shaping the competencies of the younger generation. These findings emphasize the need for continued collaboration and efforts among youth workers to promote a sustainable future.

5. Conclusion for the chapter

This Module aims to introduce youth workers to Climate Adaptation Strategies, bring the focus to the advantages of the Green jobs sector employment opportunities, and emphasize the importance of continuous learning and adaptation. The current climate change situation, which we are as a humanity facing, requires a collaborative approach and a contribution from each of us. Youth workers have the advantage of a network, which they can use to actively disseminate knowledge and raise awareness on the most urgent issues, as well as share the tools to address them. Active engagement of Youth and Youth workers is the key to a more sustainable future and resolving the climate change challenges. In this module, we also wanted to bring attention to the fact, that climate change not only brings devastating challenges, but also opportunities for those, who see them. As the world now shifting towards the transaction to green renewable sources of energy, jobs are appearing, which creates an opportunity for youth to choose a career path, that will be satisfying personally, economically, and ecologically.

Conclusion



In the field of green skills development, the GJG toolkit acts as a visual guide for educators and youth workers seeking to teach young people the essential skills to build a successful career in a sustainable future. This comprehensive toolkit offers a detailed study of the most important educational concepts, the implementation of which will ensure a successful and productive learning process. Each chapter serves as evidence of the profound impact that education can have on the orientation of industries towards environmentally friendly methods and the upbringing of a generation capable of combining economic growth with responsibility for the environment.

The importance of "green" skills in the modern labor market cannot be overestimated. In the face of pressing global challenges, educators are at the forefront, with the tools to instill environmental awareness, innovation and responsibility in tomorrow's employees. The role of educators and youth workers goes beyond traditional teaching methods, including mentoring, guidance and inspiration, to form individuals who contribute to a sustainable and resilient economy.

The GJG toolkit is not just an information resource; it is a call to action. He suggests that educators use the knowledge, methodologies and practical ideas contained in the toolkit to create learning environments that develop green skills and empower people to actively participate in sustainable development practices.

Recognizing the dynamic nature of the green skills landscape, this statement emphasizes that the culmination of the toolkit marks not the end, but the beginning. Continuous learning, adaptation and growth are essential in this evolving field. Opportunities should be used to improve methods, broaden knowledge and deepen understanding to ensure that teachers remain at the forefront of teaching eco-friendly skills.



References

United Nations | For a livable climate: Net-zero commitments must be backed by credible action [website] | [https:// https://www.un.org/en/climatechange/net-zero-coalition](https://www.un.org/en/climatechange/net-zero-coalition)

NASA | Responding to Climate Change [website] | [https:// https://climate.nasa.gov/solutions/adaptation-mitigation/](https://climate.nasa.gov/solutions/adaptation-mitigation/)

UN environment programme | 5 ways countries can adapt to the climate crisis [website] | [https:// https://www.unep.org/news-and-stories/story/5-ways-countries-can-adapt-climate-crisis](https://www.unep.org/news-and-stories/story/5-ways-countries-can-adapt-climate-crisis)

CARE | Community Based Adaptation: An empowering approach for climate resilient development and risk reduction [pdf] | [https:// https://careclimatechange.org/wp-content/uploads/2014/08/CBA_Brief_ALP_English.pdf](https://careclimatechange.org/wp-content/uploads/2014/08/CBA_Brief_ALP_English.pdf)

European Commission | Preparing young people for green careers [website] | [https:// https://european-social-fund-plus.ec.europa.eu/en/projects/preparing-young-people-green-careers](https://european-social-fund-plus.ec.europa.eu/en/projects/preparing-young-people-green-careers)

UN environment programme | Green Jobs for Youth Pact [website] | [https:// https://www.unep.org/explore-topics/education-environment/what-we-do/green-jobs-youth-pact](https://www.unep.org/explore-topics/education-environment/what-we-do/green-jobs-youth-pact)

Using artificial intelligence and the power of the LinkedIn community | How do you collaborate and network with other sustainable development researchers and practitioners? [website] | [https:// https://www.linkedin.com/advice/0/how-do-you-collaborate-network-other-sustainable#identify-your-goals-and-interests](https://www.linkedin.com/advice/0/how-do-you-collaborate-network-other-sustainable#identify-your-goals-and-interests)

Ivan Andreev | Continuous Learning [website] | [https:// https://www.valamis.com/hub/continuous-learning?gl=1*nfixxo*up*MQ.*ga*MTUxNjk5OTQyMi4xNzA1OTIxMDM2*ga_WH32P1Y0T3*MTcwNTkyMTAzNS4xLjAuMTcwNTkyMTAzNS4wLjAuMA..#what-is-continuous-learning](https://www.valamis.com/hub/continuous-learning?gl=1*nfixxo*up*MQ.*ga*MTUxNjk5OTQyMi4xNzA1OTIxMDM2*ga_WH32P1Y0T3*MTcwNTkyMTAzNS4xLjAuMTcwNTkyMTAzNS4wLjAuMA..#what-is-continuous-learning)

Green Job Growth | Pedagogies and Competences Guidebook [pdf] | file:///C:/Users/User/Desktop/GJG_PR1%20document.pdf

Sylvia Sefakor Senu | Green Skills for Youth towards Sustainable Development [website] | [https:// https://www.undp.org/ghana/blog/green-skills-youth-towards-sustainable-development#:~:text=These%20include%20skills%20in%20areas,sustainable%20agriculture%2C%20and%20environmental%20protection](https://www.undp.org/ghana/blog/green-skills-youth-towards-sustainable-development#:~:text=These%20include%20skills%20in%20areas,sustainable%20agriculture%2C%20and%20environmental%20protection)



United Nations Climate Change | Why Are Green Skills Important for Youth? [website] | <https://unfccc.int/news/why-are-green-skills-important-for-youth#:~:text=Green%20skills%20include%20technical%20knowledge,at%20work%20and%20in%20life>

Council of Europe | Manual for Human Rights Education with Young people [website] | <https://www.coe.int/en/web/compass/environment>

Kofi Annan| 3 things [website] | <https://www.coe.int/en/web/compass/environment>

USA for UNHCR The UN Refugee Agency| Natural disasters, storms and droughts: The top climate emergencies for refugees in 2023 [website] | <https://www.unrefugees.org/news/natural-disasters-storms-and-droughts-the-top-climate-emergencies-for-refugees-in-2023/>

Council of Europe | Web of life [website] | <https://www.coe.int/en/web/compass/web-of-life>

Whale and Dolphin Conservation Society | Makah whaling [website] | <https://www.coe.int/en/web/compass/makah-whaling>

The World Bank | Climate Policies with Real-World Results [website] | <https://www.worldbank.org/en/news/feature/2023/09/19/climate-policies-with-real-world-results>

The World Bank | Climate stories [website] | <https://www.worldbank.org/en/what-we-do/climate-stories-project>

European Climate Adaptation Platform| “Climate-ADAPT: 10 case studies How Europe is adapting to climate change” [pdf] | <https://www.worldbank.org/en/what-we-do/climate-stories-project>

Shivangi Mathur & Mahathi Bodhanapalli | Top Ways to Encourage Sustainability, Eco-Friendly Habits, and Mindfulness at School [website] | <https://youthsustainability.org/top-ways-to-encourage-sustainability-at-school/>

Green Job Growth | Pedagogies and Competences Guidebook [pdf] | file:///C:/Users/User/Desktop/GJG_PR1%20document.pdf

Edutopia. (n.d.) ‘Project-Based Learning’, Edutopia. [online] Available at: <https://www.edutopia.org/project-based-learning>

Teach SDGs. (n.d.) ‘Resources’, Teach SDGs. [online] Available at: <http://www.teachsdgs.org/resources.html>

Nguyen, Nhi. (2020) ‘What Exactly Is Collaborative Learning?’, FeedbackFruits Blog. [online] Available at: <https://feedbackfruits.com/blog/what-exactly-is-collaborative-learning>



Iberdrola. (n.d.) 'Carbon Footprint', Iberdrola. [online] Available at: <https://www.iberdrola.com/sustainability/carbon-footprint>

LinkedIn Economic Graph (2023), "Global Green Skills Report 2023". [online] Available at: <https://economicgraph.linkedin.com/content/dam/me/economicgraph/en-us/global-green-skills-report/green-skills-report-2023.pdf>

Aprameya Rao, (2023) 'Decoding the trend: Green skills for the 21st-century workforce', WIONews, [online] Available at: <https://www.wionews.com/business-economy/decoding-the-trend-green-skills-for-the-21st-century-workforce-652987>

United Nations Framework Convention on Climate Change (UNFCCC). (2013) 'Why are green skills important for youth', UNFCCC, [online] Available at: <https://unfccc.int/news/why-are-green-skills-important-for-youth>

Green Job Growth. (2023) 'Pedagogies and Competences Guidebook (PR1)', [online] Available at: https://greenjobgrowth.eu/wp-content/uploads/2023/08/GJG_PR1-document.pdf