

# Green Economy – A Curriculum

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# SHORT INTRODUCTION

The current global economic growth path is environmentally unsustainable. Present patterns of production and consumption degrade and deplete many of the world's environmental resources. Therefore there is a resounding need for new approaches that can promote inclusive and environmentally sustainable economic development – a green economy. Working towards a green economy (GE) is of the utmost importance in today's day and age. It conforms with Agenda 2030, a European policy framework for international development and cooperation. It also promotes a more broad employment and a reduction of poverty in its various dimensions. The following pages briefly explain why the creation and maintenance of a green economy is needed, what exactly it is, how it can be done, as well as what Bulgaria does, and can do, to promote it.

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# WHAT IS GREEN ECONOMY

In its basis the key elements of green economy are efficiency, incentives, transformation, sustainability and inclusion - bringing people and key activists together towards better livelihoods in smarter, cleaner, innovative and more resource efficient economies and ways of life. Green economy accounts for the usefulness and value of the environment as well as all natural assets in planning and decision-making of local, national, international and global processes. It focuses on the essence of the sources used for economic growth as well as their quality - as opposed to today's focus on overall growth regardless of how it is achieved. Economic growth is necessary to reduce poverty in low income countries, but it needs to be socially and environmentally sustainable. This is why a more environmentally safe economical strategy is important.

At the end of 2008, the United Nations Environment Program (UNEP) defined Green Economy as "a system of economic activities related to the production, distribution and consumption of goods and services that will improve people's well-being in the long run without exposing future generations to significant environmental risks and environmental scarcity". The main objective of the UNEP-led Green Economy Initiative is to provide support for green landscaping, to organise the investments planned in various green sectors and to provide the necessary support for the analysis of collected data. The "green sectors" identified by UNEP are both useful for overcoming environmental crises and are important for overcoming the global financial crisis thanks to their impact on employment and return on capital. Green economy aims to follow a model of sustainable development and take steps that will not exacerbate the climate imbalance with the environmental deficit. In a green economy, growth in employment and income are driven both by public and private investments into different economic activities, infrastructures and assets that allow for reduced carbon emissions and pollution, enhanced energy and resource efficiency, while also preventing the loss of biodiversity and nourishing the ecosystem. These green investments must be allowed and supported through targeted public spending, policy reforms and changes in taxation and regulation.

Working towards a green economy trumps traditional environmental management by emphasising the use of economic instruments, and places more responsibility on economic and financial activists to promote and ensure

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environmentally sustainable practices. It addresses economic externalities, e.g. environmental costs that are imposed on others, as well as economic distortions that create pollution and natural resource depletion and degradation. The strategy of making pollution more costly provides incentives for new green jobs, technologies, investments and opportunities for trade.

Implementing a greener economy typically implies analysing and addressing the economic driving forces of environmental degradation, for example identifying the environmental impacts of subsidies of water, electricity and petrol. It includes analysis of the economic impact of environmental degradation, natural resource depletion, while showing and promoting the economic benefits of environmental management.

Another key area of green economy is the design and implementation of new policies, instruments and actions to address the key environmental problems and promote economic opportunities. At the international level this is done via international conventions, treaties and agreements. At national and local levels it is most often done via environmental fiscal reforms (changes in taxes, fees, subsidies etc.) or through projects and various initiatives such as green jobs programs, green bonds and other green investments, innovations and ideas that can be scaled-up (e.g. renewable energy, sustainable housing and transport solutions). Yet another key area of work is measuring and reporting the progress of each action, such as budget allocations to environmental management, development of measures of wealth, economic growth and savings, while also monitoring the changes in environmental quality and natural capital, e.g. Natural Resource Accounting and green GDP.

In order to do all of this however, we need to answer a few basic questions.

What is the role, focus and principles of a green economy?

What are the economic and political benefits of a reform towards a green economy?

How to actively be a part of it and what skills do we need?

What are some examples of green economy in the world?

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# WHAT IS THE ROLE, FOCUS AND PRINCIPLES OF GREEN ECONOMY?

## THE ROLE OF GREEN ECONOMY

The role of green economy, sustainable consumption and production as well as resource efficiency for sustainable development is quite an important one. Sustainable consumption and production aims to improve the production processes and consumption practices worldwide to reduce the resource consumption, and the waste and emissions generation across the full life cycle of processes and products. Resource efficiency refers to the ways in which resources are used to deliver value to society and its purpose is to reduce the amount of resources needed, and emissions and waste generated, per unit of product or service. Green economy as a whole provides a macro-economic approach to sustainable economic growth with a central focus on investments, employment and skills.

## THE MAIN AREAS OF FOCUS

The three main areas for the current work in green economy are:

1. Advocacy of macro-economic approach to sustainable economic growth
2. Demonstration of green economy approaches with a central focus on access to green finance, technology and investments
3. Support to countries in terms of development and mainstreaming of macro-economic policies to support the transition to a green economy.

## FIVE PRINCIPLES OF ECONOMIC TRANSFORMATION

An inclusive green economy is a thriving economy that delivers the linked economic, social and environmental outcomes sought by the SDGs (Sustainable Development Goals) and the Paris Agreement.

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Nowadays humanity faces some serious problems: climate change, biodiversity loss, growing inequality are just to name a few. These global crises cannot be tackled in isolation and by few countries, because of their harmful impact on the environment and the world as a whole. It is currently the case that our economic system cannot achieve a good balance between society and nature. The most optimal way of achieving this balance in the environment and solving the problems that continue to appear and evolve is to have a new, more universal economic vision. This is why a prospering green economy follows five key principles, each of which draws on important precedents in international policies, and which together can guide various societies towards an economic reform in diverse contexts:

## 1. The Wellbeing Principle

A green economy gives the chance to all people to create and enjoy prosperity.

It is people-centred with a main purpose to create genuine, shared diversity and progress.

It focuses on growing wealth that will support wellbeing. This wealth is not only financial, it includes the full range of human, social, physical and even natural capitals.

A green economy prioritises investment and access to sustainable natural systems, infrastructure, knowledge and education needed for people of all ages, social statuses, backgrounds etc. to prosper in their life.

This principle also offers opportunities for green livelihoods, enterprises and jobs. The idea behind it is to build on collective action for public goods, while keeping its basis on individual choices in terms of better environmental awareness.

## 2. The Justice Principle

Green economy shows equity within and between generations while being non-discriminatory.

It shares the decision-making processes, as well as the benefits and costs fairly between everyone.

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It promotes the equitable distribution of opportunity and outcome, reducing disparities between people, while also giving sufficient space for wildlife and wilderness.

The justice principle takes a long-term perspective on the economy, creating wealth and serving the interests of future citizens, while also acting urgently to tackle today's multidimensional poverty and injustice.

It is based on solidarity and social justice, strengthening trust and social ties, and supporting human rights, the rights of workers and the global right to sustainable development.

It seeks a fast and fair transition and covers its costs - leaving no-one behind, enabling vulnerable groups to be agents of transition, and innovating in social protection and reskilling.

### **3. The Planetary Boundaries Principle**

Green economy is geared to support sustainable consumption and production.

An inclusive green economy is low-carbon, resource-conserving, diverse and circular. It embraces new models of economic development that address the challenge of creating prosperity within planetary boundaries.

It recognises there must be a significant global shift to limit consumption of natural resources to physically sustainable levels if we are to remain within planetary boundaries.

It recognizes a 'social floor' of basic goods and services consumption that is essential to meet people's wellbeing and dignity, as well as unacceptable 'peaks' of consumption.

It aligns prices, subsidies and incentives with true costs to society, through mechanisms where the 'polluter pays' and/or where benefits accrue to those who deliver inclusive green outcomes.

### **4. The Efficiency and Sufficiency Principle**

Green economy safeguards, restores and invests in nature.

An inclusive green economy recognizes and nurtures nature's diverse values - functional values of providing goods and services that underpin the

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economy, nature's cultural values that underpin societies, and nature's ecological values that underpin all of life itself.

It invests in protecting, growing and restoring biodiversity, soil, water, air, and natural systems.

It is innovative in managing natural systems, by being informed on their properties such as circularity, capacity ect. and aligning them with local community livelihoods based on biodiversity and natural systems.

## 5. The Good Governance Principle

An inclusive green economy is evidence-based - its norms and institutions are interdisciplinary, deploying both sound science and economics along with local knowledge for adaptive strategy.

It is supported by institutions that are integrated, collaborative and coherent.

It does so horizontally across sectors and vertically across governance levels - and with adequate capacity to meet their respective roles in effective, efficient and accountable ways.

It requires public participation, prior informed consent, transparency, social dialogue, democratic accountability, and freedom from vested interests in all institutions - public, private and civil society - so that enlightened leadership is complemented by societal demand.

It promotes decision-making for local economies and management of natural systems while maintaining strong common, centralised standards, procedures, and compliance systems.

It builds a financial system with the purpose of delivering wellbeing and sustainability, set up in ways that safely serve the interests of society.

These principles are hard to achieve and as such require a certain amount of prioritisation. Here are the basic steps provided to understand how to implement them better, as well as the green economy as a whole and its needs and potentials.

## 1. Diagnosis

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Scope a country's green economy assets - its natural, social, human, physical and financial capital - and their values for people, economy and planet. It is also important to intricately comprehend the ways that economic development, inclusion and sustainability have been pursued to date, both nationally and internationally as well as particular policies, institutions and initiatives that already work for inclusive and integrated outcomes. Finally, study the barriers and difficulties this country faces (e.g. political, attitudinal, capacity and technical), as well as their challenges (e.g. balancing winners and losers, handling systemic risks and stranded assets) which stop this process.

## **2. Awareness-raising**

Invest in communication, education, political and social interaction, etc. so that stakeholders are aware of the diagnosis you have made in terms that are meaningful to them - notably the problems of brown economy and potentials of green economy for lifestyles and investment.

## **3. Dialogue**

Convince stakeholders to contribute to the diagnosis above, to co-create vision and objectives for a (national) green economy, to scope feasible transition pathways, and to generate shared commitment and effective partnerships. Promote open and honest dialogue and suggest strategies for communication.

## **4. Empowerment and capacity development**

Enable often-marginalised stakeholders as well as diverse green economy leaders, champions, institutions and alliances to have a strong voice in the dialogue, to mobilise and develop their capacity through suitable means including South-South learning. Focus the attention of the bigger stakeholders on the benefits of including smaller scale partners.

## **5. New metrics**

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Begin aligning economic policies and performance metrics with the inclusive and green economic outcomes revealed as important through the diagnosis and dialogue, and reflect your decisions in a comprehensive manner e.g. SDGs, NDCs and national plans, including sector plans.

## **6. Best practices research**

Promote current and 'within-reach' best practices for inclusive green economic activities in sectors such as natural resource management, industrial policy, small enterprises, livelihoods. Carry out the same research and promotion for government and business- to create interest and upscale your ideas and plans.

## **7. Finance research**

Scope the finance sources and mechanisms available in-country that are aligned with inclusive green economy principles – and those that perpetuate the brown economy. Align all results with the identified finance needs.

## **8. Social protection**

Prepare the parameters of a fast and fair transition in consultation with the affected stakeholders – fairly meeting the reskilling and safety-net needs of those who bear costs or risks, and avoiding expected problems.

## **9. Policy, legal and fiscal changes**

Prepare a roadmap of small and large scale reforms that will best raise public support. This can be starting a shift away from environmentally unfriendly jobs and incomes, towards more safe ones like subsidies that create environmental and social environmental benefits.

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## 10. Investment prospectus

Research, understand, and take into consideration the resource requirements from all the above. Following that, make business cases for investments by public, private and community bodies in identified priorities (such as natural capital protection, management and restoration and sustainable infrastructure).

Following these steps it will be easier to be in alignment with the five fundamental principles of green economy. We should pay more attention to green development and economy as an engine for growth and sustainable lifestyle. And if we start solving the problems, trying to reach a balance, involve more people into it, have other perspectives and visions the steps towards them become more easily taken.

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# WHY IS GREEN ECONOMY IMPORTANT?

The economic system needs a transformation towards environmental sustainability and increased resource efficiency, strengthened resilience to environmental pressures and risks, and more and smarter use of green technologies and innovations. Working towards a green economy promotes poverty reduction in all four dimensions identified by the European Parliament. It promotes opportunities and possibility for equal choice among poor people by increasing their access to a clean and safe environment. A green economy also promotes human security by preventing or addressing conflicts over access to land, food, water and other natural resources. It focuses on the increasing of power and voice among the poor through strengthening their rights to a safe and clean environment, functioning ecosystems, food and health. Finally, it promotes resources and resource management including enhanced quality and quantity of natural resources, reduces pollution or degradation of air, water and lands, and other environment-related risks and vulnerabilities.

In 2012 UNEP shared this in their report "In a world where resources are gathered in one country, processed in another, then sold as products manufactured in yet another, there can be no doubt that protecting our planet, and the resources it provides, is imperative. We live in a world now so interconnected that a drought or flood in one part of the globe can soon challenge supply chains or move commodity markets in another with profound implications for the poor and the vulnerable. It thus makes sense that as we switch to a more resource efficient and Green Economy - one in which economic growth, social equity and human development go hand-in-hand with environmental security - business and industry will be a key driving force. People, planet, profit is the mantra already adopted by many companies in the pursuit of corporate sustainability, but if we are to truly transform the economic paradigm then it needs to be adopted by many, many more. From corner stores, to medium-sized enterprises and international conglomerates, there needs to be an understanding that nature provides us with valuable resources and services that must be accounted for, and that it is only by safeguarding these resources and services that we improve our own livelihoods and those of future generations. It is clearly evident that countries and their governments cannot afford to ignore the benefits that switching to a Green Economy will bring."

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The significance of the transition to a green economy is that it continues to favour and improve the symbiotic and positive relationship between nature and people. Nature is the basis for human development and economic growth. As we make more and more progress, we face more challenges. However it still remains true that the transition to a green economy ensures an improvement in global well-being (such as better health, education and job security, and social capital) all the while keeping the focus on reducing risks to the environment and ecological degradation of natural resources. Green economy is key to global prosperity because it is at the heart of green growth, which means fostering economic growth and development while ensuring that the finite natural assets we have continue to provide resources and environmental services. Green economy is the driving force in this notion and as such it should be the main catalyst of investment and innovation for sustainable growth and new economic opportunities.

If green economy is defined as interconnected economic activities that promote global sustainable development, poverty eradication, environmental protection, as well as eco-efficiency and low-carbon development, then circular economy is a regenerative development strategy for economic growth that focuses on recovery, the use of renewable energy sources, and the elimination of toxic chemicals and waste through superior design of materials, products, systems, and business models. They are joined by the common goal of reconciling environmental, economic and social goals and making these fields work together. Green economy requires a transition to green energy based on renewable sources which replace fossil fuels, while still keeping focus on energy conservation and efficient energy use. Renewable sources, like solar energy and wind energy, may eliminate the use of fossil fuels for electricity by 2035 and replace fossil fuel usage altogether by 2050.

A green recovery can boost the economy, protect the environment and invigorate the workforce. The demand for sustainable business strategies which provide finance to businesses and projects in the green, sustainable and socially positive economy is rapidly increasing according to Paula McGinnell, from Cyan Finance. "Green jobs build resilience, and the economic opportunity they provide is the largest we'll see in our lifetime," she says. The interest in green investment is also supported by Alethea Warrington, a campaigner at the climate action charity Possible, who shares that long-term investment by the UK government in clean energy,

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green transport and warm homes would be "the best medicine for the ailing of the UK economy right now".

In today's world, our economies are driven by the idea of continuous (endless) growth. World population is growing exponentially, but the resources we take from the planet for this reason are exhaustible as much as we may not want to admit that. There are countless scientific reports proving this imbalance with facts and research, who also predict when a particular system or resource may collapse. To further bring this point home, it is enough to quote one date to clarify the situation - July 29, 2019. This date indicates the index "the day of overshoot (the overshoot day) - the moment in which humanity has spent all the natural resources that should be enough for us in one year.

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# THE POLITICS BEHIND GREEN ECONOMY

General requirements for successful work towards green economy are political will, leadership skills and stronger involvement of economic and financial actors and agencies. Once these figures, qualities and skills are implemented they can work on international, national and local level. To do this however the strengthening of national and local capacity as well as generating competences to promote a more eco-friendly way of life are required. Successful actions in this field are also broadly based and profound changes in mindsets, norms, ethics and behaviours among consumers and producers. Green economy also presupposes appropriate sequencing of reforms and steps to make progress - identification of low-cost measures that can be implemented quickly and efficiently.

Promoting a green economy includes many win-win opportunities that need to be known and utilised among decision makers and the general public. Examples of such promotion include a transformation of supply chains of clean and ecologically certified products as well as a stimulation of growth in green export markets. If we are talking about entirely new companies, they can be created with higher sustainability standards that capture these financial benefits and international market shares. The process of making the economy more green typically also implies addressing trade-offs and conflicts between economic, environmental and social objectives. An example of these difficulties include eviction and compensation of poor squatters in forests designated for conservation and climate change mitigation. Another example may be given on the topic of food security versus climate change mitigation, where agricultural lands are set aside for large-scale production of bio-fuels. Green economy reforms also include addressing the environmental governance and redistribution of power on a larger national scale. A logical strategy is one in which polluting businesses lose income, while new greener activists grow, employ, and profit. An example for this can be the energy sector where solar and wind energy companies produce more jobs and take market shares from oil and coal companies.

The difficulty in creating and licensing of The German Renewable Energy Act, as well as the legislations of many other protection needs can be

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attributed to high external costs and high initial costs for research, development, and marketing of green energy sources and green products. The green economy may need government subsidies. Member states of the European Union and the American Recovery and Reinvestment Act of 2009 all provide such market incentives. However, some experts argue that green strategies can be highly profitable for corporations that understand the business case for sustainability and can market green products and services beyond the traditional green consumer.

In 2012, the ICC published the Green Economy Roadmap, containing contributions from experts from all over the globe who were brought together in a two-year consultation process. The Roadmap represents a comprehensive and multidisciplinary effort to clarify and frame the concept of "green economy". It highlights the essential role of business in bringing solutions to common global challenges. It sets out the following ten conditions which relate to business/ intra-industry and collaborative action for a transition towards a green economy:

1. Open and competitive markets
2. Metrics, accounting, and reporting
3. Finance and investment
4. Awareness
5. Life cycle approach
6. Resource efficiency and decoupling
7. Employment
8. Education and skills
9. Governance and partnership
10. Integrated policy and decision-making

In the Roadmap it is strictly noted that the success or failure of a green economy will depend on the green governance in each location. The difficulties in fostering regulations that inhibit change, combined with a lack of regulations that encourage more sustainable practices, often undermine progress towards a green economy. To overcome these limitations, it is essential that businesses, companies and community organisations can

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and do encourage policymakers to adopt policies that support sustainable business practices and innovation.

According to the 2019 Report on the Emissions Gap published by the United Nations Organization (UNO), global greenhouse gas emissions must be reduced by 7.6% per annum between 2020 and 2030 to reach the target of the Paris Agreement and consequently limit global warming to 1.5 °C or 2.7% per annum to limit it to 2 °C. Even if all the commitments of the Agreement are fulfilled, continues the report, temperatures will rise 3.2 °C by the end of the century, with increasing frequency and intensity of the related climate phenomena that have devastated the planet in recent years. In light of the situation, humankind needs to speed up the transition toward a decarbonised economy which respects the environment. Such a transition not only has the potential to halt climate change, but also to become a real catalyst for growth by creating numerous green jobs in a vast number of sectors, something that has been happening in the last few years in rich and emerging economies alike.

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# HOW TO BE A PART OF GREEN ECONOMY?

## FUNDAMENTAL GREEN SKILLS AND COMPETENCES

Green skills are abilities or knowledge a person can use to help the environment and community in order to achieve a green goal. They involve the research, analysis, planning, educating, organisation, prevention, monitoring, optimisation or promotion of various fields and activities in green economy. Green workers are also responsible for the stewardship and conservation of the natural resources that companies or large stake holders use to produce goods and services. Many green skills are on the rise and are among some of the fastest growing skills in the economy. Sustainable fashion, environmental services, and sustainable growth have all grown by more than 60% over the past 5 years and these are just to name a few of the fields in which green skills are used on a daily basis. We have made a condensed list in which we have separated the basic green skills that are most sought after in six sections.

### 1. Basic Green Skills

Remediation, recycling and knowledge on climate change, sustainable business strategies, environmental services, knowledge on renewable energy, resource management etc., skills to design and adopt technologies, products and processes that are resource-efficient, such as sustainable fashion, green transport etc., skills to learn and work with green technologies and seize opportunities presented by them, environmental awareness and willingness to learn about sustainable development

### 2. Communication And Social Skills

Communication, negotiation, and marketing, environmental justice skills, strategic and leadership skills, assistance to policy-makers and business to set the right incentives and create conditions for cleaner production, cleaner transportation and so forth, promote greener products and services, facilitate holistic and interdisciplinary approaches incorporating economic, social and ecological objectives, knowledge of occupational safety and Health Administration policy, systems and risk analysis, innovation skills, business/financial accounting services, project

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management skills with clear understanding of resource efficiency and sustainability

### **3. Hard Science Skills**

Knowledge in environmental science, biology, hydrology, chemistry, botany, agriculture, biochemistry etc., monitoring, managing and protecting natural resources including land and valuable water supplies, teaching others the valuable knowledge already available as well as cutting-edge discoveries, outsourcing new information, ideas, researching less known possible environmental paths, consulting companies and organisations on green possibilities, field work and monitoring in respective subfields

### **4. Architectural And Planning Skills**

Design and development of green spaces, managing greener construction sites, landscape and indoor redesign of particular places, addressing environmental regulations and client demands for green spaces, consulting customers about green solutions, sharing the use of green technologies and promoting more environmentally safe future projects

### **5. Green Engineering And Tech Skills**

Design, develop and maintain green technology such as solar panels, wind turbines, low emissions vehicles and others, share and promote prototypes and ideas on environmentally safe technology solutions, creating and developing greener concepts in grand-scale projects, IT skills, planning and managing of technologies, project and team dynamics and management

### **6. Agriculture And On-The-Field Skills**

Organic farming, urban farming, precision agriculture, research of physical locations, management of on-site activities and personnel, collecting of specific materials, assembling and using green technology, physically creating green urban and rural spaces

## **NON-FORMAL EDUCATION**

In order to acquire the above-listed green competences you need some sort of education and/or experience. The first items on the list of possibilities to learn these skills are internships and trainings, seeing as they are most affordable and easily achievable. Different versions of

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these can be found almost everywhere around the world, which in turn allows the gaining of experience regardless of location and other variables, while also enlarging the scope, quantity and quality of knowledge and methods you can find in each of the different places.

## 1. Internships

Internships are the beginning steps in many industries and the green economy sector is no different. Having a desire to learn is crucial when starting a new job and when you've passed an internship with a specific company or regarding a certain topic, it's way more likely to find a position which fits your knowledge and requirements perfectly. With this in mind here are ideas for some internships which are useful in the green sector.

- Environmental Internship
- Sustainable Energy Internship
- Sustainability Internship
- Solar Energy Internship
- Alternative Energy Internship
- Renewable Energy Internship
- Recycling Internship
- Ocean Internship
- Wind Energy Internship
- Green Building Internship
- Sustainable Building Internship
- Green Design Internship
- Water Quality Internship
- Farm Internship

## 2. NGOs and Non-Formal education

NGOs and Non-Formal educational systems have proven to be greatly effective through the years in a myriad of fields. The opportunities these organisations provide are seemingly endless and vastly different between

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each other. Due to their variations and scope of activities we decided to simply list some quotes about what both professionals and the general public think about the role of non-formal education regarding the green sector.

- "Young people across the world are concerned about the impact of climate change and want to do something about it. Helping young people acquire green skills strengthens their ability to find a job, lift themselves out of poverty and have control over their future" - Kelly Hawryshylyn, Plan International's disaster resilience adviser
- "Building knowledge and skills, particularly among women, is just as important as trialling new seeds and fertilisers when it comes to tackling the impacts of climate change. Integrating climate risks across development programmes is a no-brainer - particularly around the issue of food security." - Sven Harmeling, climate change advocacy coordinator for Care International
- "We are working with multiple stakeholders, including government, the private sector, media, donors, schools and of course the people in the communities where we work, to make sure that green skills are prioritised" - an NGO director

## HIGHER EDUCATION AND CORRESPONDING POSSIBLE WORK POSITIONS

Following the possibilities for a less formal way of learning, we have made a list of some great high-education options for people who want to work in this field with a formal type of accreditation. This can be extremely useful depending on the sort of work and organisation you want to work for.

Here we have listed some of the best degrees alongside the professions they provide knowledge about.

### 1. Agriculture

Agriculture isn't only about planting seeds and shearing sheep. It is a broad field that offers many educational options. Not only that poverty, famine, economic growth, selective breeding, sustainable ecosystems,

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illness outbreak – agriculture intercrosses with all of them. The degree is typically a Bachelor of Science. You will get a strong understanding of many natural and social sciences like biology, natural environments, economics, chemistry, business administration and more. You will also get practical, hands-on training as part of your degree.

- Agricultural Engineer
- Farm Manager
- Conservation Planner
- Commercial Horticulturist
- Agricultural Salesperson

This multifaceted degree provides a lot of opportunities, both conventional and not so much. Here you can find many job opportunities in very niche fields, which can be great for personal development.

## 2. Architecture

Architecture is a very popular option for studies in the green sector. Although there are many different aspects and possibilities, simply put, architects are in charge of designing different buildings and structures. Environmental designers can use this degree to create eco-friendly public or private spaces. Architecture students learn a multitude of things starting from drawing 3D designs and finishing with history and technology classes. You will graduate with either a BA or BSc, depending on the university. Regulations vary from place to place, but usually, you will need about 5 years to complete this degree.

- Environmental Graphic Designer
- Junior Architect
- Architectural Technician
- Urban Planner
- Landscape Architect
- Environmental Planner

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Architecture is a fascinating degree and when you can combine it with everything the green sector has to offer even more doors open. If you have a passion in this field, finding a job as an architect in a more ecologically friendly company is definitely possible.

### 3. Business And Entrepreneurship

A good understanding of business and management is a critical element of the green career field. A great option can be getting a degree in sustainability. Sustainability is a combination of economics, business, social and environmental science. It is also recognized as the study of the minimization of human impact on the environment. The requirements vary from university to university, but seeing as business skills as a whole are on the rise, getting a degree in this field is greatly beneficial.

- Sustainability Specialist
- Climate Change Analyst
- Energy Consultant
- Corporate Sustainability Strategist
- Financial Consultant
- Business Analyst

Students who finish university with a Bachelors in Sustainability can start almost immediately in this field. Their work will be business in nature and day to day dynamics, but it will be focused on making the respective company or maybe even the entire world more sustainable.

### 4. Botany

If you are someone who loves natural environments, botany is a perfect choice. Botany focuses on the scientific study of plants. It's generally a 4-year bachelor's degree program. The coursework mainly consists of plant biology and chemistry. Part of the course is also laboratory experiments and field research, like analysing plants in their natural habitats.

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- Botanist
- Biology Scientist
- Botany Teacher
- Landscape Designer

This scientific degree also provides a relaxing work environment, as well as social and interesting daily activities.

## 5. Environmental Law

Each student in environmental law takes compulsory core courses to learn the basics of the profession, such as common law practices. Following that you will focus on topics such as biodiversity and international law, energy law, the policy of climate change, sustainable development, and more. Eventually, students have the chance to train in the courtroom and work on a pro bono. The time span of the course depends on the university, but it typically ranges from 3 to 5 years maximum.

- Environmental Lawyer
- Legal Counsellor
- Project Lawyer
- Commercial Developer

Environmental activists are a big part of green economy and having a degree in law makes you a valuable asset in the more corporate world, especially in terms of changing various policies.

## 6. Environmental Engineering

With a bachelor's degree in environmental engineering, which usually lasts about 4 years, you can find entry-level engineering jobs. The coursework of the field is an interesting and diverse one to study. There are classes on air and water pollution, ecosystem functions, organic chemistry, environmental policies, and more. You will expand your expertise through indoor and outdoor experiments too.

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- Environmental Consultant
- Researcher
- Pollution Control Operator
- Nuclear Engineer
- Environmental Surveyor
- Safety Engineer

Once you have finished this degree and thanks to the fruitful hands-on experience it involves, it will be easy to find your desired work position. Engineering is greatly valued in green economy, so your skills will definitely be sought after.

## 7. Environmental Science

This field combines natural sciences, economics, and social sciences to address modern ecological issues. As an environmental science student, you will also have the opportunity to explore habitats, climates and land formations in various field locations. The degree usually lasts about 3 to 4 years on a bachelor's level.

- Environmental Consultant
- Environmental Engineer
- Environmental Educator
- Environmental Manager

A sustainable job in environmental sciences is a bit more difficult to come by, but definitely possible with this degree. Given the fact that environmental scientists are sparse in quantity, your qualifications and skills will be greatly valued.

## 8. Forestry

To work in professional forestry positions, you need a corresponding Bachelor's degree which usually lasts 3 to 4 years. The coursework includes

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subjects like biology, chemistry, ecology, geology, zoology, environmental sciences and more. You will definitely have field experiences but can also use your creativity on the drawing table or with the help of technology.

- Urban Forester
- Wetlands Specialist
- Conservation And Resource Forester
- Forest Ranger
- Open-Space Designer

This degree may sound very specific at first, but it actually has many applications, both physical and behind a desk.

## 9. Geology

Geology researches the physical structure and compounds of the Earth. Geology students learn about a range of subjects such as the Earth's layers, composition, mineral formations, evolution, sustainability, earthquakes, volcanoes, floods, and many others. The courses usually include both working outdoors and in labs. In the end, you will have a BSc in Geology, which generally takes about 4 years to get.

- Engineering Geologist
- Geochemist
- Geophysicist
- Geoscientist
- Geotechnical Engineer
- Hydrogeologist

With this degree you can find a lot of opportunities that specialise in both fieldwork and research. You can also specialise in a specific type of geological material and work mainly with it.

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## 10. Horticulture

Similar to agriculture, horticulture studies the cultivation of plants. People who have finished this major usually spend a lot of time outdoors taking care of plants. The course itself is a 4-year program including topics such as soil fertility, floral art, plant disease diagnosis, plant biology etc. There's a mixture of learning methods, classwork, laboratory and off-campus in practical horticulture environments.

- Horticulture Consultant
- Greenhouse Administrator
- Florist
- Landscape Designer

This degree opens the door for one of the prettiest jobs in this list. Whether you decide to simply design green spaces or do some real-life planting is up to you, but both options are possible thanks to this course.

## 11. Marine Biology

Marine biology is the science that studies the ocean's plants and animals and prevents them from going extinct. The field has a diversity of coursework like cell biology, biochemistry, marine environments, physiology, amongst others. Many universities provide the chance for on-field training as well. This happens through experiments and research on wetlands, islands, marine habitats and other locations. In the end, you finish with a BA or BSc in Marine Biology which takes about 4 years.

- Aquatic Scientist
- Research Biologist
- Biological Scientist
- Biologist

If you live somewhere near a big body of water and have an interest in marine life, this is one of the best degrees to take into consideration.

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Specialists in this field are sparse and living near such places is of a great advantage.

## 12. Renewable Energy

A bachelor's degree in renewable energy gives a general knowledge of engineering with a specialisation in renewable energy. Coursework topics include science, economics, calculus, general chemistry, energy sources, etc. The degree typically takes about 3 years of study.

- Civil Engineer
- Geologist
- Materials Scientist

This is one of the degrees with a big social footprint. If you want to start making changes in the way the world uses its energy, this is exactly the type of degree you need.

## 13. Zoology

If you are fascinated by the animal kingdom, zoology is likely a great major for you. Zoology is the science that specialises in studying the vast variety of living and extinct animals. The course usually starts with an overall view of the key definitions of bioscience. Later on, it focuses on more specific topics like animal behaviour, neurobiology, evolutionary biology. Students explore laboratory methods and apply their knowledge on fieldwork as well. In the end, you have a BSc in Zoology, which lasts about 3 to 4 years.

- Academic Researcher
- Zoologist
- Nature Conservation Officer
- High Education Lecturer
- Zookeeper
- Science Writer

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With this degree you can work both behind a desk or on the field. It is an exciting degree, which paves the way for exciting work life in the future.

## JOB OPPORTUNITIES

Let's first define what a green work position actually is. When people talk about this, they usually consider all types of work in more traditional sectors such as agriculture and manufacturing, as well as in those less conventional, such as renewable energy and waste management. However these sectors are not where the list ends - any sort of work that preserves the environment as well as jobs that make an organisation more environmentally friendly or sustainable, fall into the list of green job opportunities too. Another very important aspect of green economy is the capacity and opportunity to share knowledge and promote the right message - work done by a third type of workers. And with our technological and social advancements we are seeing an augmentation in the differentiability of specific green jobs even more, meaning there are countless more opportunities. Green jobs as a whole span a wide range of industries, from obvious ones like the above mentioned agriculture for example, to more unexpected ones like finance, fashion technologies and innovations. With this exponentially growing spectrum of opportunities, it is only natural for there to be multiple working positions being created as well those already available. An interesting fact is that ILO (International Labour Organization) estimates 24 million jobs worldwide could be created by the green economy by 2030. This is backed up by a shift towards green jobs in LinkedIn data, showing that in 2015 the ratio of US oil/gas jobs to renewables/environment jobs was 5:1, but by 2020 it was 2:1. With all of this in mind, it makes sense that the work positions in the green sector are multifaceted and can accommodate almost every skill set. Here we have made a distinction between the types of work and made groups based on the different fields and levels of difficulty.

### 1. Entry-level job opportunities

Like any other industry, you will need somewhere to start. This is why one of the categories on our list is the so-called "entry-level" or "beginner-friendly" job opportunities. Here you don't need a lot, if any particular experience, but will still be involved in the process of making the planet a better place through your work. Most of the companies offering these work positions also include a short learning period, so that you are sure you understand everything and your future work is of the sought after

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level. The possibilities in this category are maybe the most numerous ones, given the fact that enthusiasm and desire to learn are the main qualities a candidate must have.

- Research Assistant
- Resource Science Assistant
- Sustainability Promoter
- Promoter of Ecological Products
- Teacher Assistant
- Youth Worker
- Sustainability Advocate
- Environmental Researcher
- Entry-level Environmental Planner
- Environmental Analyst
- Office Assistant
- Organization Representative

## 2. Engineering job opportunities

If you have an education in engineering, or a topic closely related to it, you can definitely find a position in the green economy work sector. Regardless if your skills are more technical or theoretical, both subfields have multiple options and companies are constantly searching for people with this kind of knowledge and/or experience. This means that even if you have very specific requirements for your position, you will likely find a place in the green sector which fits your ideas almost perfectly. Here are the most common engineering positions in green economy.

- Solar Design Engineer
- Solar Project Engineer
- Environmental Engineer
- Civil Design Engineer
- Bio-Energy Engineer
- Mechanical Engineer

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- Geophysical Engineer
- Sustainability Engineer
- Water Resources Engineer
- Reliability Test Engineer
- Hardware Engineer
- Lead Staff Engineer
- Geothermal Engineer
- Hydroelectric Engineer
- Farm Engineer
- Energy Efficient Construction Engineer
- Natural Resources Engineer

### 3. Scientific job opportunities

If your professional profile is that of a scientist, then the number of job opportunities in the green sector only grows from the previous category. Considering the fact that green economy is a relatively new field of interest and knowledge, understanding more about its intricacies and sharing your knowledge so that it helps other people's work and life is absolutely fundamental.

Scientists from all sorts of varieties are not only welcome but sought after in the green sector and their skills are incredibly valuable. From field research, to analysing data, to teaching, scientists in ecology as a whole are a crucial part of our progress. Here are some of the work positions related to science where you can help make a lot of important changes.

- Environmental Biologist
- Laboratory Analyst
- Flood Hazards Geoscientist
- Environmental Scientist
- Environmental Geologist

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- Ecologist
- Wetland Ecologist
- Botany Specialist
- Storm Weather Specialist
- Environmental Compliance Officer
- Air Quality Scientist
- Zoologist
- Fish and Wildlife Biologist
- Hydrogeologist
- Environmental Program Specialist
- Geoscience Program Coordinator
- Conservation Specialist
- Botanist
- Conservation Action Coordinator
- Natural Resources Biologist
- Wildlife Biologist
- Environmental Educator
- Invasive Species Coordinator
- Land Conservation Specialist
- Managing Forester
- Restoration Field Specialist

#### **4. Technology related job opportunities**

The green sector is like any other sector regarding its technological development and the need for innovation. It utilises and thrives on technology as much as everything else that is helped by the new possibilities modern science provides. Technology is all around us, so using it for a more eco-friendly way of life seems not only logical, but greatly beneficial. Regardless of your field of expertise, be it technical, theoretical, social or other, the work opportunities in the green sector

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which relate or collaborate with technology in some way are only growing in number. This is what some of the technology jobs in the green sector are.

- Data Engineer
- Innovations Expert
- Software Engineer
- IT Specialist
- Web Developer
- Computer Scientist
- Programmer
- Web Designer
- DevOps
- Computer Technician
- Network Administrator
- Renewable Energy CAD Designer
- Digital Content Manager
- Digital

Promoter

## 5. Social job opportunities

Social work, community environment and communication are vital for a lot of people both in their professional lives and their free time. If you want to work in the green sector while still having the social experience you would in more common areas of work, these jobs are likely just for you. Not only that, but you will be an essential part of the sharing of knowledge and breaking of stigmas regarding ecology and green economy, which is a vital step in the overall change and progress green activists hope to achieve. Here we have listed just a few of the multiple things you can do to help the planet which require a more social working environment and way of thinking.

- Environmental Lawyer
- Digital Media Activist

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- Non Formal/Informal Education Teacher
- Green Organisation Representative
- Content Creator/Promoter
- Recycling Advocate
- Energy Arbitrator
- Social Political Participant
- Policy Defender
- Regularity And Quality Auditor
- Project Manager
- Green Actions Promoter
- Green Sector Teacher

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# WHAT ARE SOME OF THE ROLE MODELS AND EXAMPLES IN GREEN ECONOMY?

Environmental role models try their best to create public awareness on our ecological problems, wildlife management, and the natural world. They may come from various backgrounds but share a common goal to reduce the negative human impact on Earth. People working in the green sector encourage sustainable environmental practices through research, activism, exploration, writing and promotion. Firstly we have listed one of the biggest European organisations promoting a greener way of life followed by some of the less famous current role models to look out for, as well as some of our local activists. We hope their wonderful ideas and actions, if they still haven't reached you, will inspire you to become a green activist yourself.

## EXAMPLES OF GREEN ECONOMY WORLDWIDE

There are currently a vast majority of organisations, corporations, companies, initiatives and governments who work towards achieving the changes green economy stands for. In the following paragraph we have listed some of the actions that promote green economy in various corners of the world. There are countless other big or small scale, future, past or current projects which have the same goals and who work towards the same changes in making the world a greener and more environmentally sustainable place.

### 1. Green Economy Reform in Ethiopia

In 2011, Ethiopia launched a Climate-Resilient Green Economy (CRGE) Strategy. It builds on Ethiopia's vision to become a low carbon middle-income country by 2025. The Strategy promotes resource efficient, low-polluting alternatives to business-as-usual economic growth, by implementing an investment plan of over 60 larger investment projects. The investment plan covers four different areas of work:

- Improving crop and livestock production practices

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- Protecting and re-establishing forests
- Expanding electric power generation from renewable sources
- Leap-frogging to modern and energy-efficient technologies.

The investments are low cost measures, and rely (mostly) on international and private finance, as well as private sector mobilisation. Despite several implementation challenges, the reform offers a positive example of how green economy can be embraced and operationalized from national to local level.

## **2. Promotion of Green Jobs in Zambia**

Together with the private sector, donors, UN and other activists, Zambia's government has made use of several green economy tools to stimulate a greener construction sector. The program has developed new building codes, trained micro, small and medium enterprises (MSMEs) in resource efficient building techniques, involved large companies in demonstration projects etc. to create new markets for greener and decent jobs.

## **3. Green Bonds**

The World Bank, SEB and Toyota as well as cities like London, Gothenburg and Johannesburg have issued green bonds to finance investments in green and low carbon development. The green bonds function as conventional bonds but focus on green investments. They serve as economic incentives among investors and shareholders to increase and re-direct financial flows towards greener solutions and to provide and promote instruments to transform the economy towards environmental sustainability.

## **4. Public Environmental Expenditure Reviews (PEER)**

PEERs are a tool to analyse the government's budget allocations to environmental activities and trends across various sectors as well as the corresponding allocated time, and to check if these are coherent with national development plans and priorities. Examples from Tanzania and Mozambique show PEERs as useful eye openers to planners and decision-makers to inform them on policy processes and budgets.

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## 5. New Sustainable Homes

Homeowners in England can now apply for vouchers worth up to £5,000 to make their homes more energy efficient under the new government scheme for green home grants. Retrofitting homes could not only result in more efficient energy consumption but also create green jobs for those installing double glazing, insulation or air-source heat pumps. "It's about a systemic shift, not isolated innovations," explains Eliot Whittington, director of policy at the Cambridge Institute for Sustainability Leadership (CISL).

## 6. European Green Capitals

This initiative of the European Commission to make the world a greener place one city at a time has been going on for years. Since 2010, the award has been presented by the European Commission to cities deemed to be at the forefront of sustainable urban living. Being named Europe's Green Capital comes with a €350,000 prize and is one of the biggest environmental recognitions to date. But the award also places demands on the winners to keep building on the improvements that they won with in the first place. The key message of the award is that Europeans have a right to live in healthy urban areas. Cities should therefore strive to improve the quality of life of their citizens and reduce their impact on the global environment. The locations applying for the award are judged on a range of environmental criteria, including climate change, local transport, public green areas, air quality, noise, waste, water consumption, wastewater, sustainable land use, biodiversity and environmental management. The award enables cities to inspire each other and to share examples of good practices. So far, 13 cities have been named European Green Capitals. Here we list some of the green approaches that have won the recognition of the European Commission.

- **Grenoble**

This French city reduced greenhouse gas emissions by 25% from 2005 to 2016 and is working towards a 50% reduction by 2030. A spectacular feat which may look simple, but definitely took a massive amount of effort. They have done so using various methods and working with many local activists and companies. The sheer numbers shown here prove how important of a change this city is undergoing, which is why it earned this prize with this seemingly simple goal.

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- **Bristol**

The English in this city began a trial of 'bio-buses' powered by biomethane gas, using human waste from more than 30,000 households, an initiative that was developed further in 2020. Another important feat these people have achieved is the publication of the "Bristol Method", a knowledge-transfer programme aimed at helping people in other cities understand and apply the lessons that Bristol learned in becoming more sustainable. The Bristol Method is made up of a series of modules, each of which uses Bristol's experience to present a 'how to' guide on a particular topic. Topics include: how to use partnerships to drive change; how to use grants to support grassroots change; how to grow the green economy in a city; how to get more people riding bikes and walking; how to protect and enhance green spaces in a city.

- **Essen**

This German city developed one of Europe's largest infrastructure projects, restoring 80 kilometres of waterways and creating a network of green spaces. The project was not only an important climate adaptation milestone, but has also created new jobs and business opportunities. Essen has shown that this complicated task is possible in a city which previously relied on heavy industry and has transformed itself into a vibrant and sustainable space for people, animals and plants.

- **Nijmegen**

The Dutch citizens of Nijmegen had a different focus regarding the prize. They made a social enterprise that collects, restores and resells second-hand goods. The venture prevents waste, while also providing work opportunities for people who can put their repair and retail experience to good use. Similar projects across the Netherlands have collected 20,000 tonnes of goods a year, with 80% of them being reused. They also provide jobs for disadvantaged and disabled people who usually find it especially difficult to enter the labour market.

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# GREEN ECONOMY ROLE MODELS WORLDWIDE

Here we change our focus from the various organisations and initiatives to specific people, who have made some incredible changes in the ecological mindset and environment. Thanks to their efforts and constant work, these people have managed to single handedly change an aspect of the world towards a more green path. These and many more famous or not as widely known people serve as an inspiration for everyone who wants to achieve the same goals. The green activists we have listed here as well as all of the others are some of the most inspiring and encouraging creative minds in this field in our time today.

## 1. Erin Schrode

When Erin was 13 years old, she started an organisation called "Teens Turning Green", which has now turned into tens of thousands of high school and college kids all over the country that are educating their peers around green movements in food, fashion and lifestyle. The organisation itself recently changed the name to just "Turning Green" because Erin and the first generation of this establishment are now in their early 20s. She and the other activists in the organisation continue to inspire people by travelling the world as young green leaders and sharing all of the practices they know with those who can make our collective future brighter.

## 2. Leilani Münter

This lady is one of the leading female NASCAR drivers in history, and she only drives cars powered by renewable energy. She was also a part of an event hosted by Mark Ruffallo, where she raced a solar-powered car, something which a lot of people deemed almost impossible. She has a huge following because NASCAR is the number one spectator sport in America, so the impact she has, and her platform to create awareness around a more green and sustainable life is really powerful.

## 3. Leonardo DiCaprio

The famous actor is a ferocious environmental activist. One example is the foundation he set up in 1998 that bears his name "The Leonardo DiCaprio

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Foundation". It runs more than 35 conservation projects and its mission is to protect Earth's last remaining wild places and apply sustainable solutions to encourage a healthier relationship between humankind and nature. What is even more, the actor has also produced several documentaries on these concerns which reach out to even more people and share knowledge on the topic, therefore become active themselves.

#### **4. Sebastiao Salgado**

This Brazilian photographer, the author of works like Exodus or Genesis, decided to retire his camera after covering some of the worst conflicts on the planet to create "The Instituto Terra", whose mission is to replant the forest where he spent his childhood. His tireless work - in the last twenty years he and his wife have planted two million trees - has revitalised an entire ecosystem and re-greened the Aimorés region, in the state of Minas Gerais, Brazil.

## **EXAMPLES AND ROLE MODELS IN GREEN ECONOMY IN BULGARIA**

In the following paragraph we focus on the green economy examples we have in Bulgaria today and what their focus is. These various organisations work towards achieving various green goals both locally, nationally and on an international level.

#### **1. Za Zemiata (For the Earth)**

This is a Bulgarian environmental non-governmental organisation determined to work towards teaching and therefore creating a more self-sustainable lifestyle for the general public. It also focuses on being active in green personal and political decision-making processes for our planet, while combating exploitation of people and nature. Founded in 1991, it is among the oldest environmental NGOs in Bulgaria, having started work after the fall of the communist regime in the country. Za Zemiata has been an associated member of Friends of the Earth since 2012.

#### **2. The Bulgarian Environmental Partnership Foundation (Fondaciya EkoObshtnost)**

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This is one of the biggest Bulgarian foundations and it is working to support the development of the civic society in Bulgaria by encouraging and supporting local communities to use and preserve their cultural and natural resources for sustainable development in a responsible way. Its original goal is to enrich and expand the social awareness of environmental issues. Another main focus point is to establish and encourage a culture of interaction between non-profit organisations, civic groups, local governments, representatives of the business community and other national or regional institutions. Finally it aims to encourage initiatives aimed at improving governance practices and actively involve the general public in the decision-making processes on a local and corporate level.

### 3. Borislav Sandov

He is one of the social turned political activists in Bulgaria who is fighting the hardest for local problems. He is a Bulgarian [ecologist](#), [politician](#) and member of Bulgaria's 46th [National Assembly](#). He is a co-founder of the [Green Movement](#) party and was its co-chairperson for three years. Sandov is active in environmental campaigns, including protecting the [Irakli beach](#), banning [GMO](#) in foods, moratoriums [shale gas](#) and following the laws regarding the [Pirin National Park](#).

## RESEARCH ON FUTURE OPPORTUNITIES FOR GREEN ECONOMY IN BULGARIA

In the process of searching for new opportunities and models for the development of the Bulgarian economy in the post-crisis period, it has become even more obvious that we need a fundamental change in the existing conceptual framework. The existing model of economic growth, based on conventional manufacturing, has to be changed into a new, much more resource-friendly one. Promoting green manufacturing could be the right response to this new challenge. The economic incentives which help towards launching a new model of new green deals aim to promote the creation of more green jobs, to establish energy-efficient production and clean technology. All this requires timely, adequate and responsible government policy. The active intervention of public authorities requires a new distribution of the functions and competences between the private and public sectors keeping in mind the lessons learnt from the mistakes and omissions made so far. By analogy, ecological capital should be created and developed along with human capital. This capital along with the

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existing connection between it and financial capital and the new collected information and communication technologies (NICT) are to become the driving force of a new type of green economic deal. The target of the efficient macroeconomic policy for stimulating the development of the green economy should be the establishment of a model of long term eco-friendly production on all markets and at all levels through a set of fiscal and regulatory measures. This new model should aim to accomplish a social benefit in the long term rather than maximising company profits in the short run.

This strategy complies with the decisions made at the Rio+20 meeting, which clearly outlines the fact that the world needs to define the need to combine economic, environmental and social targets. The "stability culture", initiated by the Maastricht Treaty, should be integrated with a new "sustainability culture". The social and ecological transition presents the new long-term development strategy which Europe needs, so that it can quickly and effectively recover from the current crisis. We have to reconsider the existing development framework, to fundamentally change the current model and to launch a new one which can provide for a new type of economic growth. Profound structural transformations are needed to address these challenges - both in the existing technology and to a great extent in implementing new technologies and innovation that meet the needs of the 21st century and the creation of new products and services which will guarantee the opportunities for sustainable development. It is this component in particular that we will be referring to with the term "ecological capital". This green element is well maintained in the recovery anti-crisis plans and in the national strategies for economic recovery of most leading European economies. The economic incentives work towards establishing energy-efficient production and clean technology, influencing the price of CO2 and thus attempting to restrict the emission of greenhouse gases. Therefore they have the overall objective to proceed towards solving some of the climate change-related problems. The efficient functioning of this model requires a clearly defined macroeconomic policy and a set of measures based on the sustainable development principle. It is not an easy task to give a comprehensive, working and satisfactory definition of the concept green economy because this concept differs a lot across the EU member states. Various categories exist such as green sectors, green business, green new deals, bio-economy, recovery based on green economy etc. All these, though closely related, cannot be considered to be identical. The €10 billion allocated for the recapitalisation of the European Investment Bank can secure €60 bln additional loans which on its part can result in securing new €180 bln of investments within the EU1 through the leverage of the private investment funds.

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Whether it is about resolving issues related to climate change, destruction of biodiversity or natural resources depletion, the inefficiency of and the poor outcomes from the existing method of economic growth economically, environmentally and socially are becoming more and more evident. This is not only a problem that the Bulgarian economy is faced with, but the European economy as a whole. The market forces and mechanisms cannot deal on their own with the problems and challenges that the present time poses for the following few reasons in the least:

- The market cannot spontaneously determine the price of carbon dioxide and hence this parameter does not become an integral part of the budgets of the economic agents and of the cost respectively
- The erosion of biodiversity and the 'free' usage of a multitude of eco services (from soil quality to air and water pollution)
- The time lag between the reasons for and the consequences from the climate changes, on the one hand, and the irreversible nature of the damage caused on the other, which calls for the need to take measures even before the economic agents are ready for that

The reform should be conducted systematically and consistently in three main directions:

- Modifying the traditional market regulatory mechanism (the price system) through an efficient eco-fiscal policy
- Promoting innovations and new eco-technologies
- Increasing energy efficiency.

These three lanes, each of which has its limitations, should be seen as the foundation of a common strategy for sustainable development.

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