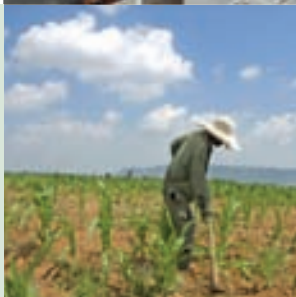
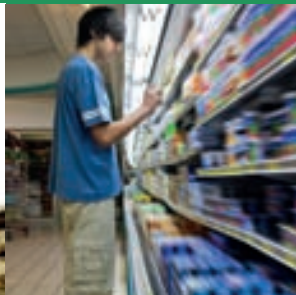




United Nations
Educational, Scientific and
Cultural Organization



youthXchange

Green Skills and Lifestyles Guidebook



United Nations
Environment Programme



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For more information on the YouthXchange Initiative: www.youthxchange.net

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youthXchange

Guidebook Series

Green Skills and Lifestyles



United Nations
Educational, Scientific and
Cultural Organization



International
Labour
Organization



UNEP
United Nations
Environment Programme

Foreword

The 2012 *United Nations Conference on Sustainable Development* (Rio+20) was clear: a green economy needs green skills to work. In Rio de Janeiro, countries agreed to implement green economy policies in ways that drive equitable growth and poverty eradication, with a focus on young people, women and the poor. A successful transition to a green economy will be one that builds on two pillars – job creation and youth involvement.

The stakes are high. Today, young people under the age of 25 are the largest generation of youth in human history. They represent half of the world's population, living mostly in developing countries. An estimated 33,000 young people are expected to enter the job market every day between now and 2050. This generation is highly educated, but they face steep barriers in securing decent jobs, entering and remaining in the labour market. With nearly 75 million unemployed young people around the world, they are three times more likely to be unemployed than adults.

Education about the green economy is essential to enable young people to participate fully in the

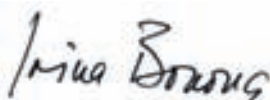
transition to a low carbon, resource efficient and socially inclusive economy. Many young people are aware of the green economy, but they need more information to understand how to make it real – locally, nationally and internationally.

The *YouthXchange Green Skills and Lifestyles Guidebook* fills this gap. Developed by UNEP and UNESCO, in collaboration with the International Labour Organization (ILO), this Guidebook helps young people connect the talk about the green economy, green societies and green jobs to their lifestyles. It focuses on the skills required to make these transitions – providing case studies and insight on green jobs and the skills they will require in terms of social innovation and entrepreneurship, the role of different stakeholders (government and private sector) and life skills.

Young men and women are already driving change across the world. We must provide them with the skills they need to create new lifestyles and develop green jobs. Building a green future must start with training and education. It must start by listening to young people, by engaging their creativity and acting together.



Mr Achim Steiner
Executive Director
UNEP



Ms Irina Bokova
Director-General
UNESCO



Mr Guy Ryder
Director-General
ILO

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1. The YXC Guidebook Series

The *YouthXchange Green Skills and Lifestyles Guidebook* is the second in a series of thematic guidebooks supporting the UNEP/UNESCO YouthXchange (YXC) Initiative. The first guidebook was on climate change and lifestyles. This initiative was created in 2001 to promote sustainable lifestyles among young people (15-24 years) through education, dialogue, awareness-raising and capacity-building. The series is produced for young people and the people working with them, such as educators, teachers, trainers and youth leaders around the world.

"The ever increasing environmental issues that face our world should be seen not as threats, but as chances to work together to ensure that our future on earth is protected."

Krystal Schara (16), United States of America

The YouthXchange guidebooks provide young people with ideas, actions and starting points towards a sustainable world. With nearly half of the world's population under the age of 25, most living in developing countries, just imagine the impact of young people as change agents in adopting more sustainable lifestyles. If we add together our small steps, we will move towards lifestyles that help sustain our planet, our global and our local communities.

Aims of the YXC Green Skills and Lifestyles Guidebook

- Explore the links between the development of, and transition to, an inclusive green economy;
- Inform young people about what an inclusive green economy is and introduce actions required to achieve it;
- Help young people consider how a green economy can help create more sustainable lifestyles.

"Green economy is an urgent need to reach sustainable development around the world for our generation and for generations to come."

M. Ihsan Kaadan,
UNEP Tunza Youth Advisor for West Asia

The opportunities of a green economy

It cannot be denied that the multiple economic crises around the world are threatening jobs and lifestyles. However, there are also opportunities. The International Labour Organization (ILO) suggests that up to 60 million jobs could be created in the transition to a green economy. Young people can seize the opportunities this presents by creating their own employment opportunities, as the case studies in this guidebook demonstrate. They show how young people rise to the challenges of:

- Creating green job opportunities;
- Developing learning and training opportunities for green skills;
- Adapting and developing skills for a sustainable future;
- Taking action by being part of the conversations about achieving inclusive green economies;
- Adopting lifestyle choices that contribute to a green economy and more sustainable communities.

This guidebook is designed to inspire young people to create their own part of a new green economy, and support those already working towards a transition to a sustainable future. This transition needs more than the support of governments and business – young people must be part of the dialogue and activities to make this sustainable future a reality. Young people can contribute to fostering new types of employment, increasing demand for environmentally friendly products, and creating new products and services.

The YouthXchange Green Skills and Lifestyles Guidebook can be downloaded from
www.youthxchange.net

and the UNEP and UNESCO websites at
www.unep.org and www.unesco.org

2. What is a green economy?

What are the attributes of a green economy? How do we define employment differently? How does a green economy help make society more sustainable?

“Green economies must include everyone. No society, no man or woman can be left behind. We must all protect the planet for the future we want.”

Irina Bokova, Director-General of UNESCO

Green economy

A green economy can be seen as a pathway to sustainable development, which is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. In a green economy, the environment is a determining factor of economic production, value, stability, and long-term prosperity, as a source of growth and a spur to innovation. The question is – what does a green economy look like?

The United Nations Environment Programme (UNEP) defines a green economy as “one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.” It is an economy that is low-carbon, resource efficient and socially inclusive. In a green economy, growth in income and employment are driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services. These investments need to be catalysed and supported by targeted public expenditure, policy reforms and regulatory changes. This type of sustainable economy needs to build on existing and traditional knowledge, adding new ideas and technologies. It should maintain, enhance, and, where necessary, rebuild

natural capital as a critical economic asset, as a source of public benefits, especially for the poor whose livelihoods and security strongly depend on nature.

A green economy is not a substitute for sustainability. *There is however a growing recognition that, to a large extent, restructuring the economy is key for achieving sustainability.* It is part of sustainable development, a way to achieve a resource-efficient, socially inclusive and environmentally sustainable world. It is an economy that responds to the issues of climate change, the need for “closed-loop systems,” meaning for example that we can reuse and recycle through the life cycle of products, and also redesign these products in order to minimize waste and pollutants and other environmental impacts from their production to their use and end of life.

As stated in The Future We Want, the outcome document of the Rio+20 United Nations Conference on Sustainable Development held in June 2012 in Brazil, everyone has a role to play in implementing a green economy. This can be a government creating policies that encourage green economy, businesses recognizing their long-term future is in managing the resources they rely on sustainably or young people creating their own community actions.



Get Active!

Do you know what has been happening to our environment? Have a look at UNEP’s Keeping Track of our Changing Environment: From Rio to Rio+20 (1992-2012) – a compilation of statistical data, tracking environmental changes over the last twenty years, and laying out challenges and opportunities for sustainable development. What new environmental issues and phenomena have risen since 1992? What has changed locally for you?



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What is a green economy?



Case study

Through a 2006 revision to the French Public Procurement Code, France was able to contract its purchase of toner cartridges to [APF Enterprises 34](#) – The French Association of Paralyzed People. From 2009 to 2011, the contract resulted in the purchase of 5,000 new and remanufactured cartridges at a cost of €310,000, resulting in 11,500kg waste recovered, 30% cost reduction for the French government, 4.5% increase in sales for APF Enterprises 34, and the creation of nine new full-time jobs for disabled persons yearly.

Why do we need a green economy?

Young people are exposed to media messages and images promoting increased consumption, which means increased use of resources, amidst a stalling world economy. According to the [Global Footprint Network](#), the rate at which we are using the Earth's resources requires 1.6 planets to maintain our current lifestyles – it now takes the Earth one year and six months to regenerate the resources we use in a year. If we continue business as usual, with current population and consumption trends, by the 2030s we will need the equivalent of two planets to support us. This is unsustainable. A green economy aims to turn around this traditional model, with the environment seen as an enabler of economic and social development.

The loss of biodiversity and ecosystem degradation is affecting many sectors including agriculture, fishing and forestry – the very sectors that many of the world's poor depend on for their livelihoods. Currently, 836 million people live in extreme poverty and about one in five persons in developing regions lives on less than US\$1.25 per day. It is the world's poor who are paying the high economic and social costs for economic development, most of which is driven by the overexploitation of natural resources like freshwater and forests, which the poor are dependent on for their livelihoods. A transition towards a green economy aims to increase access

to basic services and infrastructures as a means of alleviating poverty and improving quality of life.

To live sustainably, we have to make sure that we have a good life today, tomorrow and the day after that, by using resources efficiently. A sustainable world and green economy also need to be inclusive, enabling everyone to have sufficient resources for a happy and healthy life, through our everyday lives, e.g. through the skills we gain, our jobs, how we choose to spend our money and our interactions with others. It is about ensuring everyone is part of the community locally through to globally.

"It is easy to mouth the words 'sustainable development,' but to make it happen we have to be prepared to make major changes - in our lifestyles, our economic models, our social organization, and our political life."

Ban Ki-moon, Secretary-General of the United Nations



Case study

New technologies and incentives are paving the way to a green economy. [Kenya](#), for example, has cogeneration processing plants with more efficient energy, which reduces their carbon footprint and costs. The [Cogen for Africa project](#) helps private sector agro-processing enterprises realize the potential economic and environmental benefits of efficient cogeneration systems. This project draws on the expertise of Mauritius, where over half of the country's electricity comes from biomass-fed cogeneration facilities.

"The fact is that more and more opportunities in the green economy space are emerging. Whether its new technologies, legislation, consumer power or commitment by CEOs to simply do the right thing, greening consumption and production is moving corporate thinking."

Achim Steiner, UN Under-Secretary-General and Executive Director of UNEP

What is a green economy?



Get Active!

We rely on resources that are mined such as taking water from aquifers, oil for plastics or transporting food from different places. We extend our footprint across the world as we use these resources. How can you contribute towards reducing this ecological footprint? Check out the [Online Resources](#) for tips on what you can do to reduce your footprint.



In Numbers

Over the last 25 years, the world economy has quadrupled but 60% of our natural systems are degraded.

([Towards a Green Economy, UNEP, 2011](#))

Valuing natural services – essential for life

Economic policies need to recognize that services provided by natural systems - such as mangroves protecting against flooding or forests helping to purify water – are things we currently get for 'free' but that these services can be easily destroyed by our actions. It is possible for our economies to develop without affecting natural capital. For example, forests do not simply provide timber; they also filter water, protect against soil erosion and provide recreation and income. It is estimated that families living around forests potentially get 40% of their income from the forest. Only 10% of forests are under certified management. Every year we are losing forest areas the size of Costa Rica for uses such as timber, creating farms or places for houses. This needs to be balanced by the services forests provide such as flood control that save millions of dollars. These types of services are being used as indicators of success by programmes encouraging green economy and employment.



In Numbers

In 2000 alone, the potential global catch losses due to overfishing resulted in a loss of land value of between US\$6,400 and US\$36,000 million, an amount that could have prevented around 20 million people worldwide suffering from undernourishment.

([Geo for Youth, UNEP, 2013](#))

Towards a green economy and environmental sustainability

The UNEP report [Towards a Green Economy](#) identifies and debunks myths surrounding the green economy. The first key myth is that we cannot have both environmental sustainability and economic progress. The report shows how this is not true by pointing out the opportunities for investment, growth and jobs, for example in renewable energy technologies, waste management and the building sector.



Case study

The [Venezuelan Youth Organization for the United Nations](#) is illustrating the benefits of environmental services through projects on the green economy, such as reclaiming a contaminated site and turning it into an organic garden with the help of the community. They teach people about gardening without using products that have negative environmental impacts and how to use ecological services to improve our environment.



What is a green economy?

CLOSE-UP: RENEWABLE ENERGY

Energy is essential in our lives; it powers economies and empowers women while generating jobs and strengthening security. Our current dependence on fossil fuels contributes to climate change. Sustainable energy can power opportunities, especially in a world where 1.3 billion people – one in five globally, with most living in developing countries – lack electricity to light their homes or conduct business. While it is important to increase energy from renewable resources such as wind, ensuring energy efficiency can increase resource productivity, support economic growth, and reduce energy costs.

Increasing the share of renewable energy in the overall energy mix helps not only to reduce GHG emissions, but also to ensure energy security and energy access, and comes with additional environmental and social benefits. This sector has been braving the economic crisis.

Investments in renewables totalled \$286 billion in 2015, some 3% higher than the previous record in 2011. Developing world investments in renewables (up 19% in 2015) topped those of developed nations for the first time in 2015 (down 8%). Much of these record-breaking developing world investments took place in China. Other developing countries showing increased investment included India, South Africa, Mexico and Chile.



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Get Active!

Have you heard about “[Earth Hour](#)”? It is an annual event held worldwide to encourage individuals, communities, households and businesses to turn off their non-essential [lights](#) for one hour. It is held on the last Saturday in March as a symbol of their commitment to the planet. “[Join the Hour](#)” and think about how you might be able to contribute to reducing energy use yourselves by creating a ‘turn it off’ campaign! Develop creative ways of informing others about unnecessary energy waste or using renewable energy.



Case study

[The Sustainable Energy for All Initiative](#), which was launched by the UN Secretary-General Ban Ki-moon in 2011, brings together businesses, governments and civil society. It has three objectives: to ensure universal access to modern energy services, to double the global rate of improvement in energy efficiency and to double the share of renewable energy in the global energy mix.



In Numbers

Many developing countries have a rich endowment of renewable energy that can help meet this need. Already, developing countries host more than 50% of current global renewable energy capacity.

([Bloomberg New Energy Finance, 2011](#))



In Numbers

The current electricity system is environmentally unsustainable and highly inequitable, leaving 1.3 billion people without access to electricity and 2.6 billion dependent on traditional biomass for cooking in 2011.

([International Energy Agency, 2013](#))

What is a green economy?

CLOSE-UP: WATER USE

Another key challenge is water scarcity, which affects one in three people on every continent. The situation is getting worse as the need for water rises along with population growth, urbanization, increases in household sizes and industrial uses of water. By 2050, at least one in four people is likely to live in a country affected by chronic or recurring shortages of fresh water. Water scarcity can increase the risk of household water contamination and provide breeding grounds for mosquitoes, which are carriers of malaria and other diseases. The aim is to have stable water supplies, providing sufficient and available water through proper allocation and institutional changes to address issues of policy, water scarcity, contamination and clean supply to all sectors of the community.

When people do not have access to water, they spend their disposable income on purchasing water from vendors and use large amounts of time



carting the water. This erodes the capacity of the poor to engage in other activities. When sanitation services are inadequate, the costs of water-borne disease are high. Cambodia, Indonesia, the Philippines and Vietnam, for instance, together lose about US\$9 billion a year because of poor sanitation – or approximately 2% of combined Global Domestic Product (GDP). Access to reliable, clean water and adequate sanitation services for all is a foundation of a green economy.



Get Active!

How can you conserve water in your area? Monitor your water consumption everyday and explore ways of reducing and reusing your water at home, school or workplace. Share your tips with your family, friends and community.



In Numbers

Nearly 1 billion people lack access to clean drinking water; 2.6 billion lack access to improved sanitation services; and 1.4 million children under five die every year as a result of lack of access to clean water and adequate sanitation services. It is estimated that an annual investment of US\$198 billion on average over the next forty years is needed to make water use more efficient, enabling increased agricultural, bio fuel and industrial production.

(Towards a Green Economy, UNEP, 2013)



Get Active!

Think about the bottled water industry selling 8.8 billion gallons of water in 2010, creating almost US\$11 billion in profits. The WorldWatch Institute estimated that its production and transportation could have fuelled an estimated 1.5 million cars for a year. Always check the potability of your tap water before use and think of creative ways to encourage others to do so as well.

What is a green economy?

CLOSE-UP: URBAN PLANNING

Half of humanity – 3.5 billion people – lives in cities today. Often people who leave the countryside to find better lives in the city have no choice but to settle in informal settlements. Although urbanization is linked to poverty, it also provides possibilities for escaping it. Improving access to basic urban, social and health services, and employment for poor people in urban slums, are critical to breaking the cycle of poverty. For example, enhancing public transport systems can reduce inequality by improving access to public services and other amenities, and by helping to relieve vehicle congestion in poorer neighbourhoods. Cleaner fuel for transport and power generation can reduce local pollution

and health inequality. Reducing traffic and improving conditions for pedestrians and cyclists can help foster community cohesion.

Green spaces stimulate social interaction and enhance human well-being. Evidence shows that children who live in close proximity to green spaces are more resistant to stress, have a lower incidence of behavioural disorders, anxiety, and depression, and have a higher measure of self-worth. Green cities can have the potential to meet environmental goals and to improve residents' quality of life.



In Numbers

One billion people live in urban slums, which are typically overcrowded, polluted and dangerous, and lack basic services such as clean water and sanitation. By 2030, some 5 billion people will live in towns and cities.

(2007 State of World Population, United Nations Population Fund)



Case study

The population of Curitiba, Brazil, grew from 361,000 in 1960 to 1.828 million in 2008 without experiencing typical drawbacks from congestion, pollution and reduction of public space. This was achieved by its innovative approaches to urban, city management, and transport planning that included job creation and stimulation.

(UNEP Green Economy Initiative)



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What is a green economy?

Towards a green economy and poverty eradication

The second key myth identified in the UNEP report [Towards a Green Economy](#) is that a green economy is a luxury only wealthy countries can afford, or worse, a way to stop development and keep people in poverty. The report describes many examples of progress towards a green economy in the developing world, which can be replicated elsewhere. For example: the use of microfinance loans enabling poorer parts of a community to start businesses that benefit themselves and the environment.



Case study

[F3 Life](#), an East African credit system, integrates environmental sustainability into their loan conditions by ensuring that loans are designed to encourage better soil, water, reef and grassland management. When farmers sign an agreement with F3 Life to receive Farmer's Life credit and technical farming advice, they undertake to repay their loans with interest and build grass strips and small terraces, which stop soil erosion.

CLOSE-UP: TOURISM

The tourism industry is an important engine for economic growth. Globally, in 2014, it accounted for 10% of GDP, 1 in 11 jobs, US\$ 1.5 trillion in exports and 6% of the world's exports. Tourism is the main source of foreign exchange for one-third of developing countries and one-half of Least Developed Countries. The rapid growth in international and domestic travel, the trends to travel farther and over shorter periods of time, and the preference given to energy-intensive transportation are increasing the non-renewable energy dependency of tourism, resulting in the sector's contribution of 5% to global GHG emissions. Other challenges include excessive water consumption, discharge of untreated water, the generation of waste, the damage to local terrestrial and marine biodiversity, and the threats to the survival of local cultures, built heritage and traditions.

Travel and tourism are human-resource intensive, employing 8% of the global workforce. The greening of tourism, which involves efficiency improvements in energy, water and waste systems, is expected to reinforce the employment potential of the sector with increased local hiring and sourcing and significant opportunities in tourism oriented toward local culture and the natural environment. Increasing the involvement of local communities, especially the poor, in the tourism value chain can contribute to the



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development of local economy and poverty reduction. This can include the local supply of products, labour, tourism services, and increasingly "green services" in energy and water efficiency and waste management.



Case study

South Africa's [Fair Trade Tourism](#) (FTT) promotes responsible tourism in southern Africa and beyond. FTT operates a responsible tourism certification scheme that supports tourism enterprises, including community-owned ventures to optimise the environmental, social and economic impacts of tourism.

What is a green economy?

CLOSE-UP: AGRICULTURE AND FOOD PRODUCTION

We are also facing a challenge feeding our increasing population. According to the Food and Agriculture Organization report entitled [The State of Food Insecurity in the World 2015](#), about 795 million people in the world – just over one in nine – were undernourished in 2014-16, with 98% living in developing regions. To help address this challenge, we can change food production methods to not destroy, but rather maintain or even increase, natural capital. This can include environmentally friendly soil management, policy incentives and encouraging the merging of modern technologies with traditional knowledge.

People will be fed and poverty reduced without degrading ecosystems through adopting greener agricultural practices, such as integrated pest control, reducing waste from inefficient distribution or food or crop spoilage, minimizing water use, and the development of varieties that are tolerant of a wider set of growing conditions. This also has the potential for increasing employment and community security.



In Numbers

Insect pollinators contribute US\$190 billion per year to agriculture, showing our current reliance on natural capital, although this is not often acknowledged in accounting systems.

(Towards a Green Economy, UNEP, 2011)



Get Active!

Can you find fair trade or organic food and more sustainable products locally? What can you do to raise awareness about them among your peers and the public?

“Feeding an expanding and more demanding world population in the first half of this century, while attending to the needs of nearly one billion people who are presently undernourished and addressing climate change, will need managed transitions away from “business-as-usual” in both conventional and traditional farming.”

[Towards a Green Economy, UNEP, 2011](#)



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What is a green economy?

CLOSE-UP: WASTE AND RESOURCES

According to UNEP, more sustainable waste management has the potential to create 10% more jobs than those created under current trends. Of all the waste streams, waste from electrical and electronic equipment containing new and complex hazardous substances presents the fastest-growing challenge worldwide.

Manufacturers are reducing waste on a large scale by finding markets for by-products (such as iron and steel waste used as raw material input for cement production). Redesigning products and changing the processes that make them, can lead to a reduction in energy and materials use. Recycling reduces both the amount of new materials required and energy used within the manufacturing process. A green design approach produces items that are easy to manufacture, repair, maintain and recycle, in comparison to the prevailing culture of making products that are disposable and not as easy to repair. The overall vision is to establish a global circular economy in which material use and waste generation are minimized, any unavoidable waste recycled or remanufactured, and any remaining waste treated in a manner least harmful to the environment and human health or even generating new value such as energy recovered from waste.



Get Active!

Does your local community have any green waste management policies? What can you do to support these policies? What about creating your own recycling project for your community?



In Numbers

Recycling employs 12 million people in Brazil, China and the United States alone; sorting and processing recyclables stimulates up to 10 times more jobs than landfills alone. The global waste market, from collection to recycling, is estimated at US\$410 billion a year, not including the sizable informal segment in developing countries. Recycling is likely to grow steadily and form a vital component of greener waste management systems, which will provide decent employment.

(Building Inclusive Green Economies, UNEP, 2013)



Case study

About 40 million tonnes a year of electronic waste are dumped globally. Many industrialized countries ship large volumes of unsuitable equipment for re-use to developing countries, which contributes to locally generated e-waste. In 2008, the Basel Convention created the [E-Waste Africa Project in West Africa](#) aimed at enhancing the environmental governance of e-waste. In 2012, a “[Call for Action](#)” on e-waste in Africa was adopted, which outlines eight priority areas to improve the environmentally-sound management of e-waste in Africa.

(Building Inclusive Green Economies, UNEP, 2013)

Why is a green economy important to young people?

Young people under the age of 25 – nearly half of the world’s population – have a significant role to play in the necessary transition to a green economy. The world faces a worsening youth employment crisis: almost 73 million youth are looking for work. Considering that approximately 33,000 young people are expected to enter the job market daily between now and 2050, how

this generation is integrated into the active workforce is a determining factor in the success of the transition to a green economy. A green economy offers the potential for new jobs to be created and for existing jobs to change, which requires adjusting training and skills relevant for green jobs. These employment opportunities are important to young people, whose energy and creativity is needed in creating a sustainable and employment-orientated present and future.

3. Green economy: making it happen

The green economy needs support to make it happen.

Where is this support coming from?



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In Numbers

The UNEP Green Economy Report (2011) states that an investment of 2% global GDP across 10 key sectors could spur a paradigm shift towards a more sustainable future. These investments must be catalyzed and supported by targeted public investments, policy reforms and regulation changes.

(Building Inclusive Green Economies, UNEP, 2013)



In Numbers

A shift to a green economy can have significant gains for workers, the environment and the economy. For example, based on country-specific studies, net job gains of 0.5% – 2% (15-60 million additional jobs) are possible and could be higher in emerging economies and developing countries, because they can move straight to green technology.

(Working Towards Sustainable Development, ILO, 2012)

A green economy: this is possible!

The UNEP report [Towards a Green Economy](#) states that a transition to a green economy may increase wealth and natural capital, alleviate poverty and deliver better management of natural resources. Over a period of six years, this transition can also produce a higher rate of GDP growth – a classical measure of economic performance. This is not just something governments and business are involved in: it requires everyone to support the strategies and take the opportunities they offer.

Even if the state of the environment is globally deteriorating, in the last 60 years, there have been some positive global environmental changes. For example, removing lead from petrol helped improve air quality and has had a positive impact on young peoples' health; recycling quotas in Europe and other places have encouraged waste sorting and collection systems so that fewer items are thrown away, and removing ozone-depleting substances has had a positive impact, reducing the thinning of the ozone layer. These examples, which need to be scaled up, show that we can recognize risk, collaborate and develop new strategies that can change technology, industry behaviour and products, to benefit our environment and pave the way to a green economy.



Get Active!

It starts with you! Can you move to a personal green economy, one where you have minimal impact on the planet, and your consumption is more sustainable? How can you support local food, more sustainable products and ethical trading? What electricity or water bills do you have? How could they be reduced? What mode of transportation do you use? How do you reduce waste?

Green economy: making it happen

Making it happen

The transition to a green economy is about change at all levels: individual, community, organization, national, regional and international. All human activity is involved in this change: technology, production, consumption and waste. It requires changing social and economic systems to break the poverty cycle and ensure fair and decent employment for all.

A successful transition to a green economy requires a collective vision, creativity, action and support from a broad cross-section of society, including governments, the private sector and consumers. Governments can introduce policies that can stimulate green investment and enable a green economic transition; the business sector can introduce policies that allow companies to systematically integrate sustainable development in their corporate strategy; and consumers can exercise their purchasing power by demanding goods and services that foster a green economy.

The report [Transition to Transformation: Sustainable and Inclusive Development in Europe and Central Asia](#) (UN, 2012) shows how governments, decision-makers and individuals can make these changes if they work together. This inclusive approach should lead to the creation of more sustainable communities, societies and businesses.



In Numbers

The transformation to a greener economy could generate 15-60 million jobs globally over the next two decades and lift tens of millions of workers out of poverty.

([Working Towards Sustainable Development, ILO, 2012](#))

The transition to a green economy

ILO and the [European Centre for the Development of Vocational Training](#) (CEDEFOP) identified key requirements for developing a green economy:

- Environmental awareness as an integral part of education and training;
- Effective cooperation between government and civil society;
- Decentralizing resources to enhance local impact;
- Prioritizing skills and classroom training; and
- Improving training and incentives for the workforce.

The transition to a green economy may mean alterations to the types of jobs that are available or that existing jobs may require new knowledge and application of current skills in new ways, as new working methods are introduced. This will involve some sectors reducing employment, while others increase employment. Think of these examples:

- Existing jobs are transformed and redefined as work methods are greened;
- When packaging is reduced or changed then the demand for jobs decreases in the packaging sector;
- New markets around technologies and services to reduce greenhouse gas emissions create new jobs;
- Changing demand due to regulations and purchasing patterns can create new jobs.

The ILO and other organizations have stressed the need to ensure that jobs are decent and safe as this happens. An economy can only be green if it is inclusive and respectful of the

Green economy: making it happen

right of workers. In planning the transition to a green economy, we need to remember that rural and poor communities also require a clean environment for their livelihoods and living conditions.

What are governments doing?

The ILO and CEDEFOP suggest that governments stimulate their markets by providing incentives and regulatory frameworks for green services, adopting new sustainable technologies and investing in skills training. The UNEP Green Economy Initiative's [website](#) gives a wealth of examples of how countries are implementing national strategies, through engaging with the UNEP Green Economy Initiative's advisory services. Some examples of good green economy policies in action include:

- The Ghanaian government signed a Voluntary Partnership Agreement with the EU in 2009, using market mechanisms and legislation to recover degraded forest areas and improve employment opportunities;
- The Manila Declaration on Green Industry (2009), signed by more than 20 Asian countries, encourages cleaner production technologies and renewable energy;
- The National Rural Employment Guarantee Act (2005) is a guaranteed wage employment programme in India that enhances the livelihood security of marginalized rural households, by financing works that address causes of drought, deforestation and soil erosion, thus restoring the natural capital on which rural livelihoods depend;
- The Korean government's "Extended Producer Responsibility" system started in 2003 requires manufacturers and importers to recycle instead of land filling or incinerating, causing carbon dioxide emissions to be reduced annually by an average of 412,000 tons;
- In 2007, the Beijing Municipal Publicity and Education Centre for Environmental Protection in China began to encourage sustainable and green consumption, engaging media outlets in promoting the three "Es" (economical, ecological and equitable) and the three "Rs" (reuse, reduce, recycle); and
- The Ethiopian government adopted a climate-resilient green economy strategy in 2011 as part of a five-year growth and transformation plan, with investment in key sectors, including hydroelectric power.



Green economy: making it happen

Encouraging greener trade and consumption

Trade is an important part of the economy, but we need policies to encourage the exchange of environmentally friendly goods and services. The use of credible certification schemes can be helpful, for example, the certification of sustainable produced forest or marine products or eco-labelling of products.

Various national government initiatives have been introduced to help reduce carbon emissions and encourage the development of low carbon technologies such as solar and wind power. These have been supported by incentives such as Feed-in-Tariffs that give eligible energy generators attractive prices for their renewable energy sales, guaranteed [grid access](#) and a long-term contract for the electricity produced. Of course, such incentives need infrastructure support and a suitable policy mix to suit the circumstances and culture of the area in which they are being used. Where they have been deployed, such incentives are credited with driving 64% of global wind and 87% of global photovoltaics capacity (Bloomberg New Energy Finance). The Green Economy Report indicates that if about half of total energy investments focused on energy efficiency and renewable energy, the result could be 20% more employment than business as usual by 2050, with the added bonus of lower emissions.

Another key challenge is subsidies that favour fossil fuels. Removing subsidies creates opportunities for positive impacts: for example, when the Ghanaian government removed fuel subsidies in 2005, the money was used to [eliminate school fees](#) in primary and junior secondary schools.

Tips

Next time you are shopping, look for products that have eco labels and certification schemes that indicate the products are produced more sustainably.



"[Despite the possibly catastrophic impacts of greenhouse gas emissions on the environment], many governments continue to subsidise the use of fossil fuels. Such subsidies are [...] very costly in economic terms, creating a large drain on government budgets and distorting national and international markets. On the other hand, energy subsidies can be beneficial, where they are aimed at promoting cleaner and more efficient technologies and at improving poor households' access to modern forms of energy."

Achim Steiner, UN Under-Secretary-General and Executive Director of UNEP



Get Active!

Support companies and products that are attempting to turn things green. Make a list of everything you buy or use. How many of them are locally produced or environmentally friendly? Research your local companies and see what products are local or fairly traded.

Green economy: making it happen

What are businesses doing? Sustainability strategies, CSR and financial resources

Corporate social sustainability (CSR) refers to the scope of business activities of a company, such as what it produces, how it buys and sells, how it affects the environment, how it employs, educates and influences the development of its staff, how it invests in the community and respects human and labour rights. In essence, CSR is defined as the voluntary activities undertaken by a company to operate in an economic, social and environmentally sustainable manner. CSR activities are easy to summarize: they should have positive impacts on people and the environment and minimize the negative ones.

CSR is voluntary and often goes beyond legal requirements. It reflects how a company recognizes its responsibility for its impacts on society. As the [EU Strategy document](#) states, "To fully meet their corporate social responsibility, enterprises should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders."

This can be achieved through a variety of methods such as the transparent and open disclosure of social and environmental information. There are different initiatives that can help companies with this:

- The [International Organization for Standardization](#) (ISO) has developed guidance and standards for companies to show compliance with responsibility for environment and society. ISO provides this practical support for companies who are taking their environmental management seriously.
- The [Global Reporting Initiative](#) develops and disseminates globally applicable Sustainability Reporting Guidelines for voluntary use by organizations reporting on the economic, environmental, and social dimensions of their activities, products and services.

- The [UN Compact Global](#) cites ten principles that indicate how we can develop strategies and operations with universal principles in the areas of human rights, labour, environment and anti-corruption.

Businesses of all types are embracing the ideas of green economy and corporate sustainability. At the [Rio+20 Summit](#), representatives from financial institutes signed and committed to a [Natural Capital Declaration](#) recognizing the value of ecosystems for the social, economic and ecological well-being that we all rely on. The [EU CSR Strategy 2011-14](#) reports that CSR advises businesses to "integrate social, ethical and human rights concerns into their strategies and discussions with collaborators." This reflects a growing awareness that business is part of, not separate from, society.

Individual companies are also creating their own initiatives. For example, the British company [Marks and Spencer](#) advertised a strategy that involves their customers in activities such as a clothes swap, where they can bring in old clothes when they buy new ones and benefit charities at the same time. The North American company [Seventh Generation](#) made a commitment to the whole life cycle of their products to maintain low impacts on people and the planet. Sweden, for example, is the first country to demand [sustainability reports](#) from state-owned enterprises. It's not just the big companies that are moving towards a more sustainable outlook.



In Numbers

About 37% of EU small and medium sized enterprises (SMEs) have at least one full or part-time 'green' employee. Green jobs are largely created in SMEs. In 2012, one in eight employees of SMEs had a green job: almost 13% of all SME jobs.

([SMEs, resource efficiency and green markets](#), European Commission, 2012)

Green economy: making it happen

However, we need to be aware of “greenwashing”, the act of misleading consumers about the environmental practices of a company or the environmental benefits of a product or service. Companies are notably accused of greenwashing when they spend more time and money claiming to be green through advertising and marketing than implementing business practices that minimize their environmental impact.

A global green economy transformation requires substantial financial resources. Financial investment, banking, and insurance are the major channels of private financing for a green economy. Long-term public and private institutional investors, banks, and insurance companies are increasingly interested in minimizing environmental, social and governance risks, while capitalizing on emerging green technologies. For

example, the [UNEP Finance Initiative](#), which works with more than [200 financial institutions](#), develops and promotes linkages between sustainability and financial performance, and realizes the adoption of best environmental and sustainability practice at all levels of financial institution operations.



In Numbers

Since it was first published in 1996, ISO 14001:2015, *Environmental management systems – Requirements with guidance for use*, one of ISO’s most successful management system standards, has been adopted by well over 300 000 certified users worldwide.”

([International Organization for Standardization, 2015](#))



© UN Photo /Martine Perre

Green economy: making it happen



Case study

The regional [ASEAN \(Association of Southeast Asian Nations\) CSR Network](#) provides a platform for networking, exchanging best practices and facilitating peer-to-peer discussions on CSR at the regional level. It is an advocate for CSR by engaging participants in information, education and communications campaigns that promote the practice of CSR. The Network's mission is to "ensure that CSR is incorporated in the corporate agenda and to contribute towards sustainable socio - economic development in ASEAN Member States," such as Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam.



Tips

Look at the UN [Greening the Blue](#) initiative to see how a large organization like the UN is greening itself. What techniques can you use from this Initiative to green your own life, your home, school, and work place and beyond?

Young people as part of a green economy

Young people are key stakeholders who are affected by businesses large and small. They are children of employees, young workers, consumers, future employees and leaders of business, and they share the community and environments in which business operates. Thinking about children's rights can help businesses to understand their impacts on society and reflect the perspectives of children and young people. In 2012, UNICEF, Save the Children and the UN Global Compact developed the [Children's Rights and Business Principles](#) to call on businesses to respect and support children's rights in all of their activities. So, how can you make a difference to the green economy, while companies and governments are developing everything from CSR strategies to policy frameworks?



Get Active!

Research the companies in your area and find their sustainability-related policies. How do these policies benefit your community? What proposals for community projects could you develop to help the companies meet their social responsibilities?



Tips

The UN Global Compact hosts local business networks in over 100 countries; these are forums for businesses interested in learning about and engaging in social, environmental and human rights issues. Contact your local network so you can provide a youth perspective on sustainability, human rights and the green economy. [Find a UN Global Compact Local Network near you.](#)



Get Active!

Do you want to reduce your ecological footprint? As a consumer, you are part of the supply chains of the goods and services you buy! Why don't you apply CSR principles to the way you manage your household, focusing on four key areas: energy, food, waste and water? Think about the following questions:

1. What services and suppliers do you use? How do your purchases affect the environment?
2. What actions can you now take to live more responsibly? Think about the small steps first, as the whole transition and support to a green economy can be daunting. Try not to act alone, find a few friends to join in with, join an NGO or networks, online or community or better still, both.

4. Green jobs

What are green jobs? Where can we find them?



“Within the context of sustainable development, the green economy should help generate decent jobs, especially for the nearly 80 million young people entering the workforce every year. We can also scale up social protection safety nets. Let me emphasize that social progress and job creation require bold action on education - the basic building block of any society.”

[Ban Ki-moon, Secretary-General of the United Nations](#)

What is a green job?

ILO defines a green job as jobs that “help reduce negative environmental impact ultimately leading to environmentally, economically and socially sustainable enterprises and economies. More precisely green jobs are decent jobs that reduce consumption of energy and raw materials, limit greenhouse gas emissions, minimize waste and pollution and protect and restore ecosystems.”

There appears to be an explosion in green jobs that encompass traditional sectors, such as the building sector. According to a report by the Green Jobs Initiative, a transformation to a greener economy could generate 15 to 60 million additional jobs globally over the next two decades and lift tens of millions of workers out of poverty.

Half of the global workforce (the equivalent of 1.5 billion people) will be affected by the transition to a greener economy. Tens of millions of jobs have already been created by the transformation to a greener economy; for example, the renewable energy sector now employs over 7.7 million people worldwide, more than doubling the number of jobs from 2006-2010. There also appears to be an explosion in green jobs across traditional sectors such as building, agriculture energy and waste disposal. These jobs require conditions that would facilitate their development such as international sustainability standards, strong environmental rules and regulations, reducing barriers to imports of environmental goods and services and facilitating market access for green sectors.



In Numbers

The American Solar Energy Society and Management Information Services Inc. predicted that by 2030, the American economy will generate as many as 37 million green jobs, primarily for professionals and highly skilled technicians.



In Numbers

The great majority of efficiency measures, especially in the building sector, show positive employment and economic effects. A study undertaken in 2000 by the British Government concluded that for every US\$1.4 million invested in residential energy efficiency, 11.3–13.5 full-time equivalent jobs were created.



Case study

Some 70% of the population of Bangladesh, mainly in rural areas, does not have access to electricity. Grameen Shakti (GS), a not-for-profit company, has helped more than 900,000 rural households to install solar home systems. GS operates a small loans scheme, which enables even very poor rural households to buy a system without subsidies. The scheme creates local jobs and income opportunities. Some 15,000 trained technicians, including local youngsters and women, have already been trained as certified technicians in the repair and maintenance of solar systems to date.

Employment opportunities in a green economy

It would be great to now give you the definitive list of all the green jobs you might apply for, but we cannot predict that so easily. Walking down the street in the 1970s, we may have heard about a man going to the moon, but how many of us could have predicted energy efficient light bulbs, or the removal of chlorofluorocarbon from aerosol cans, or computers in refrigerators? So how could we predict the innovations and technologies that we will be using in the future? We can however identify some potential trends:

1. Some additional jobs such as technologists working with renewable energy will be created as new markets grow around technologies and services to reduce greenhouse gas emissions;
2. There will be changing demand due to regulations and purchasing patterns. Some jobs will be new, as in shifting from fossil fuels to renewable;
3. Certain jobs may be eliminated without direct replacement, for example, if packaging materials are discouraged or banned and their production is decreased;
4. Many existing jobs (especially plumbers, electricians, metal workers, and construction workers) will be transformed and redefined as day-to-day skill sets, work methods and profiles are greened.

As shown, all sectors need a sustainable outlook as new sustainable processes are adopted. This will become increasingly significant, with the impact of expanded legislation, enforcement and investment in sustainable industries creating increased demand for suitably qualified workers. To meet these potential opportunities, governments are recognizing that there is a need to invest in training, education and green programmes, particularly in the adoption, operation, development and maintenance of science, technology and engineering skills geared towards building green societies. Of course, one of the major needs now and for the green economy is more teachers who are able to integrate environment and sustainability issues, including the green economy, into their teaching. That is what UNEP and key partners such as UNESCO and the United Nations University are encouraging through the Global Universities Partnership on Environment for Sustainability (GUPES), which promotes the integration of environment and sustainability concerns into teaching, research, curricula development and implementation, community engagement and the management of universities including the greening of university infrastructure/facilities/operations.

“Green economy allows technological progress that goes hand in hand with nature as a partner rather than as something that can be used and abused.”

Moira Pain (16), Isle of Man (UK)



Green jobs



Case study

One of Brazil's ongoing challenges is its high illiteracy rate: 9.7% of the population was illiterate in 2010. In order to increase pupils' motivation to go to school, the Foundation for Education Development (FDE) distributes a school kit every year to all pupils. In 2011, they decided to buy almost 4 million notebooks made from recycled paper, containing at least 60% recycled fibres. This saved 8 million liters of water and 1766 tonnes of waste. These notebooks also promote economic activity in a country where nearly 90% of waste collection is done by waste pickers. By ordering such large quantities, to some extent, the state guarantees jobs to many inhabitants.

Sectors you can think about

While we cannot tell you details of future job opportunities, we can suggest how you might think about developing knowledge and skills for different employment sectors. As the examples below show, it's not just companies that require green economy skills; service sectors do as well. Some of the sectors expected to play a central role in the green economy are:

- **Agriculture:** With a growing world population, the agriculture sector needs to explore ways of improving husbandry and cropping techniques, minimizing water requirements and reducing fertilizer use as we move towards a green economy. People are developing the knowledge and competencies for managing eco-systems to remove the need for pesticides, chemical fertilizers, and machinery powered by fossil fuels, growth hormones for livestock, and feed additives. This requires training and knowledge in managing soil fertility, more efficient and sustainable water use, crop and livestock management, and a review of mechanization. Taking part in this movement means supporting sustainable and organic farming methods locally, and being innovative in developing enterprises that promote these

methods, like the Kenyan-developed [iCow app](#) for mobile phones – an application that helps cow farmers maximize breeding potential by tracking the fertility cycle of their animals.

- **Construction and architecture:** Working as green developers who favour the use of environmentally-friendly building materials and prioritize the energy and water efficiency of buildings. This involves transforming buildings into ecologically viable facilities by improving insulation and installing solar panels.
- **Education:** Teaching about sustainability, the green economy and sustainable development can support learners in making responsible choices when meeting their daily needs. Educators that integrate these issues across curricula and extra-curricular activities can empower learners, especially youth, to adopt more sustainable lifestyles and spread the message.
- **Energy:** Moving to low-carbon energy supplies from renewable energy, rather than fossil fuels. Developing and installing energy-efficient equipment so that less energy is used overall.
- **Fashion:** Clothing and accessories made from recycled fabrics and buying second-hand clothing are just some examples of how the fashion industry is embracing the green economy. More designers now use environmentally sustainable natural fabrics and consider how their clothes are produced; some major retail chains are reducing their supply-chain carbon footprints.
- **Finance:** Since innovators are constantly looking for secure funding to enable them to share great ideas about polluting less and using energy more efficiently, working in the finance sector can allow you to promote green economies. Finance companies are increasingly providing analysis and information about clean energy and carbon markets, which help investors make informed decisions about

Green jobs

the development of sustainable businesses and innovation in clean technology while making profits.

- **Fisheries:** Respecting the need to allow overfished populations to recover, protecting essential habitats and minimizing the release of GHG during the process of fishing.
- **Food and catering:** Some restaurants only use more sustainable products and local ingredients in an effort to reduce food miles and avoid carbon emissions they generate. With numerous labelling schemes such as the Marine Stewardship Council, which certifies sustainably managed fisheries, restaurants are now able to join the green economy by adopting sustainable principles. Some restaurants are reducing the number of meat dishes offered because producing meat uses up more land, more water and more energy for harvesting and transport than producing vegetables. Some are also working towards food waste prevention and reduction, looking at the way they prepare food, serving adapted size portions, and providing “doggy bags” to their customers.
- **Forestry:** Managing forests sustainably, so that excessive logging is stopped, and trees are planted to replace those cut down. Understanding certification schemes helps support trade in sustainable forest products.
- **Hospitality and tourism:** There are opportunities for encouraging greener transport, creating the realistic offsetting of carbon, ensuring that caterers and hoteliers follow green principles, and that municipalities encourage the adoption of schemes such as the [Blue Flag system](#) indicating that beaches are managed to benefit people and the environment. UNEP has developed a [Green Meeting Guide](#) designed to assist organizers



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Green jobs

and hosts of small and medium-sized meetings to include green considerations in event preparation.

- **Manufacturing:** Changing the way products are made so that they use less energy and are easier to maintain and recycle; redesigning industrial processes so that the by-products from one process can be used to make something else; recycling or remanufacturing products rather than making them from raw materials (such as refilling printer ink cartridges); and switching to combined heat and power, where the heat generated in the production of electricity is captured and used for heating.
- **Music and entertainment:** The music industry is also jumping on the green bandwagon! Some musicians are so dedicated to environmental principles that they incorporate environmental messages in their music and try to reduce their carbon emissions by greening their concerts. This often means they work with tour organizers that promote the use of sustainable energy sources, reduce and recycle waste and have carbon-offset programmes for audiences. UNEP, for example, developed a [Rhythms del Mundo Rio+20](#) Album with the Artists Project Earth, featuring Sting and U2, highlighting prominent environmental messages.
- **Politics:** Blending politics with the environment by including environmentally-friendly principles in political campaigns and policies.
- **Recycling:** Creating and supporting systems or technologies that are taking us from simply recycling, to reducing and reusing waste, whilst ensuring that workers are safe from exposure to harmful working conditions.
- **Transportation:** Using more rail and public transportation and developing more fuel-efficient motor vehicles and planes.



For more information, check out the [UNEP Tunza Magazine](#). The ILO report [Working Towards Sustainable Development](#) outlines the key sectors that will experience the greatest transformation in a greener economy.



Case study

In April 2013, TripAdvisor®, the world's largest travel site, launched its new [TripAdvisor GreenLeaders](#) programme aimed at helping its community of more than 200 million travelers plan greener trips by highlighting U.S. accommodation engaged in environmentally-friendly practices. The programme is now extended to Canada and Europe. This programme evaluates a comprehensive list of eco-friendly practices from linen and towel re-use, recycling and composting to electric car charging stations and green roofing. The more green practices a hotel has in place, the higher its TripAdvisor GreenLeaders level.



Case study

UNEP is working closely with the entertainment industry as part of a broad strategy for creative outreach as we hope to leverage the far-reaching appeal of the creative community and its ability to generate interest in environmental issues and inspire action. This strategy includes the engagement of [UNEP Goodwill Ambassadors and Patrons](#), including tactical engagements with extreme athletes and other environmental advocates under the Climate Heroes umbrella.



Get Active!

The [Young Artists Fellowship for the Environment](#) created the [Lilus & Co](#) project to support the use of indigenous fabrics in developing accessories and clothing. Water lilies are considered nuisance plants because they grow exponentially, killing some aquatic resources like fish. To address this problem in the Philippines, some communities have dried the water lilies to make fabric, which is used to make dresses and fashion accessories. This has provided livelihoods to artisans and weavers, particularly for those who live in areas where water lilies are abundant, as well as young fashion designers.



Get Active!

If you are already employed, make a list of how you can make your job greener and share it with your colleagues.



Case study

Ghana Bamboo Bikes, a non-profit enterprise, which won a [SEED Award](#) in 2010, uses the abundant bamboo raw materials in Ghana to manufacture high-quality multi-purpose bamboo bikes, which are affordable for the poor. As the frames are light and stable, the bikes are suitable for rough terrain and for carrying large farm loads, passengers, water and even patients. Bamboo Bikes is committed to the economic empowerment of youth, creating employment opportunities for skilled and unskilled young people, and in addition to the local market, also targets the EU and USA to generate foreign exchange.



Tips

Networking is an important job-hunting strategy. Do your friends, family members, teachers, community workers or youth leaders know someone who works in the area you are interested in? Ask them to put you in contact. Build your own network through volunteering or working with community or corporate groups with green credentials. You could also explore internships and seek tips for advancing your career or education. You also need experience to help you get certain jobs. Think about developing or being involved in a project, a charity, non-profit organization or community activity so that you can gain adaptable and relevant skills needed for employment. For example: volunteering to market a community event will help develop public relations skills.



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5. Green entrepreneurship and social innovation

How can you contribute to a green economy as an entrepreneur? Where should you start? How can you meet the challenge of self-employment?

Green entrepreneurship

An entrepreneur is a person who sets up a business, taking on financial risks in the hope of profit, seeing tasks not as overwhelming, but as opportunities. A green entrepreneur works within the limits of resources, builds on traditional knowledge, and considers people and how they get fair and decent work, and makes a profit within those constraints. Green entrepreneurship requires social innovation, which incorporates ideas and innovations such as products and services that meet social needs by solving existing social, cultural, economic and environmental challenges. Social innovation involves changes that are good for society and enhance society's capacity to act.

“Entrepreneurship training can also be used to help small firms to identify green business options and turn environmental challenges into new business opportunities.”

Working Towards Sustainable Development, ILO, 2012



In Numbers

According to Gallup surveys conducted in 27 African countries in 2011, one in five Africans aged 15-24 who are not already business owners say they plan to start their own business in the next 12 months, although they are less likely than those aged 25 to 35 to have these plans. In general, young women are as likely as young men to report plans to launch a business.



Case study

Abdul Mugeet is one of the United Arab Emirates' newest and youngest green entrepreneurs. At just 10 years of age, he became an active environmentalist, campaigning against plastic. He began making paper bags in 2010 from old newspapers which he distributed free of charge to local shops, making more than 4,000 “Mukku bags” in two years. He has won a number of awards and continues to spread awareness about the harmful effects of using plastic bags, running workshops in schools in different parts of the world.

“Think green in your business to build shining colours in your sustainable future, as the environment is just like money in a bank. You can take money out if you already saved it. What will you take from the environment if you just exploit it more without giving anything back?”

Vania Santoso (20), Asia Pacific Environmental Ambassador for Indonesia



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Green entrepreneurship and social innovation

Young people leading the way

Engaging in social innovation and green entrepreneurship is one way to contribute to a green economy. Young people need to help drive this economic change and think of how to establish critical partnerships in education, government and local business. The partnerships could help develop strategies that enable young people to establish their own businesses. Now is the time to start thinking about setting up your own business or social enterprise to benefit your local community or support environmental projects. Here are some inspiring examples:



Small-scale financing in Africa: An online platform is being created to attract investment and promote access to markets for start-up businesses in the green economy. The aim is to connect young African entrepreneurs with resources through an open online call for support (crowdsourcing), provide a platform where young people can get suggestions for improving projects, link with similar projects and obtain feedback from professionals and experts. It encourages people to contribute US\$50 and vote for the best youth-led project;

Kibera Community Youth Programme in Kenya: A unique, community-based organization formed and run by young people in the Kibera slum, in

Nairobi, initiated an environmentally sustainable income-generating project assembling simple and affordable solar panels. Approximately 60% of their volunteers are being trained in entrepreneurship skills.



Case study

Solar Sister, a 2011 SEED Winner, empowers African women by providing them with clean energy and economic opportunities. It trains women to become entrepreneurs, providing them with a “business in a bag” which consists of an initial stock of portable solar products, training, and marketing materials. The entrepreneurs then sell the products in rural areas, earning a commission on each sale.

Filling the social innovation gap

It may be difficult to define the jobs of tomorrow, but we can say that they require social innovation. Currently, sectors such as transport, waste management and energy supply are adopting technologies that change the way business is done. Innovation comes from thinking about the next step that will need to evolve from current ideas and solutions. We need to consider the impact of population growth, climate change, resource scarcity, ecosystem decline and urbanization on future employment. We need young pioneers to design and test new business models and new financing approaches that can drive innovation in the face of these environmental challenges.

One way to drive innovation at a local level is through cooperatives. These are voluntary democratic organizations owned and controlled by their members, raising capital that everyone shares in. Cooperatives have often been successful in creating collective approaches for buying and negotiating contracts, and offering a unified voice in national and international trade deals. Cooperatives keep the business (and the

Green entrepreneurship and social innovation

wealth it creates) local and have a proven track record in creating jobs.

There are also social enterprises, which are businesses whose surpluses are reinvested in social objectives for that business or in the community, rather than being driven to maximize profit for shareholders and owners.

Social innovation: making a difference

Around the world, social innovation and entrepreneurship is becoming increasingly popular in alleviating poverty. In 2009, Ashoka: Innovators for the Public, a non-profit organization based in the United States, received a \$15 million grant to support social innovation and entrepreneurship in agricultural and sustainable rural development in sub-Saharan Africa and India move out of poverty.

In the countryside of West Bengal in India, where arid conditions and landlessness combine to cause hunger, Ashoka's Fellow Sikha Roy is organizing women who are daily-wage earners to exercise a legal right over unused land and then farm it appropriately. With produce of their own, the women can feed their families, escape abuse they are exposed to as labourers, and stay close to their children and loved ones. As more women stay close to home and work their own land, their lives and their children's lives are improved, and their role in village affairs is enlarged and secured.



Case study

Prosperity Candle is a social enterprise that works with women in and from distressed parts of the world, like Haiti, Afghanistan, Vietnam and Rwanda, to help them rebuild their lives through the simple craft of candle-making. Through economic empowerment of women, the enterprise is linked to global markets providing local employment and income for all.

"Empowering rural women by promoting women's entrepreneurship and e-business in cooperatives has been identified as an important approach to alleviate rural poverty and promote sustainable development. ...women can become better equipped to enter the market for green products/organic food and gain access to vital resources needed for businesses."

Developing Women's Entrepreneurship and E-business in Green Cooperatives in the Asian and Pacific Region, UN, 2008



Tips

Are you ready to start your own social enterprise? Here are some tips to get you started:

- Engage with local communities and customers to encourage sustainable options.
- Be consistent with your principles of sustainability to show how you are walking the talk in terms of efficient resource use, fewer greenhouse gas emissions and community care.



Case study

UNEP has partnered with the European Commission to promote resource efficiency and eco-innovation in an effort to change consumption and production patterns in developing countries and economies in transition. This Eco-Innovation Project seeks to reduce the environmental footprint of businesses and ensure competitiveness in the context of growing environmental pressures and resource constraints. Using an eco-innovation-based approach, companies can take concrete steps towards sustainable development, applying a proven methodology, learning about best practices and identifying new technologies, while tailoring them to fit their own contexts, industries and products.

Green entrepreneurship and social innovation



Get Active!

Start creating a strategy for your own innovations by signing up to one of the free courses listed in the Online Resources section or by following these steps:

- Get informed about what companies (local, national, international) are doing to make their businesses more sustainable;
- Carry out research to see potential threats to your environment. These could be physical impacts, social impacts, or how markets might evolve;
- Develop your solutions to these potential impacts. Could you address these impacts by creating your own business?
- Consider who you can collaborate with to develop your ideas.

- Many rural young people seek independence through self-employment in small businesses or migration to urban centres;
- Young people may struggle with constraints caused by a lack of assets such as capital, land, experience and limited guidance in developing business projects;
- Young people are often excluded from access to land, rural finance, decision-making and institutional support.

These points summarize many of the barriers young people face in starting their own businesses, in rural and urban settings around the world. There is also a barrier for young people who are not able to obtain the training required for new jobs developing in sectors such as agriculture, fisheries, forest, renewable energy, manufacturing and tourism. Access to funding your projects can be difficult but think about alternatives such as a “time bank” - a type of network whose members give some of the time, knowledge and skills that they are willing to share with the community. In return, they can get an equal amount of someone else’s time or help. The first “time banks” were founded in the United States in the 1980s and have since spread to many parts of the world.



© Shutterstock/Stuart Jenner



Tips

Are you thinking about taking your ideas further and creating a social enterprise to benefit your community and create local jobs? Download [Start your Social enterprise](#), which has start-up essentials and includes the advice of those who have been there and done it. It might need adapting to your circumstances but the advice applies to social enterprises everywhere.

Challenges and limits

In 2011, the International Fund for Agricultural Development reviewed the problems facing young entrepreneurs in Latin America and recognized that:

- Young people may not be recognized as entrepreneurs with real capacity to take on and improve production and economic growth;

Green entrepreneurship and social innovation



Starting your own business

Entrepreneurship is something that can be encouraged. You can start your own business. Think about these steps to help get you started:

1. Think of your service or idea; does it address a local challenge or need, or solve some problems faced by a community group?
2. Follow your passion, but start small by selling your product or service on a small scale. This lets you learn from mistakes before you grow the business and start spending more money.
3. The Internet has made it easier for people to try out new businesses. All you need are a product, people and a payment-providing service. You can also consult numerous civil society groups who are willing and able to support young people who want

to create businesses or enterprises that provide solutions to environmental and social challenges.

4. Writing a business plan is critical to getting your business started. Before you start developing your business plan on green entrepreneurship, look online for guidance, e.g. www.greenforall.org/, <http://www.sba.gov/green-business-guide>

You need to consider:

- Who are you selling to?
 - How will you contribute to the society and economy? Have a look at the Sustainable Development Goals for ideas or issues your business may address, e.g. environmental sustainability or poverty.
 - Be transparent and avoid greenwashing!
5. Set up a test to try out your idea – this does not require major investment – particularly as a website and payment account (such as [PayPal](https://www.paypal.com)) can be easy to set up.
 6. Start promoting your idea by using social media, leaflets or a poster campaign. Can you use [Twitter](https://twitter.com) to describe your idea? Within the 140-character limit, present your idea by listing its benefits. See how others respond and get busy developing your plan.

Contributing to the Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs), also known as the Global Goals, build on the Millennium Development Goals (MDGs), and include a set of 17 goals to end poverty, fight inequality and injustice, and tackle climate change by 2030. The SDGs, and the broader sustainability agenda, go much further than the MDGs, addressing the root causes of poverty and the universal need for development that works for all people. Contribute to the SDGs by developing projects and businesses that further sustainable development.

THE GLOBAL GOALS For Sustainable Development



© GlobalGoals.org

6. Skills for a green economy

What are the skills you need for the future?

“Business, labour and civil society organizations have skills and resources that are vital in helping to build a more robust global community.”

Kofi Annan, seventh Secretary-General of the United Nations and 2001 Nobel Peace Prize winner

Skills for a green economy

Let's start with the good news: you already have or are developing skills that can help create a green economy; you are part of the transition to a green economy. Everything you do, say and act reflects your lifestyle. It is about you! You are a key changemaker. You are the promoters and innovators for a green economy, whether you are at school, college or in a job.

Start with considering different approaches to supporting a green economy. Skills such as critical thinking, assessing and developing ideas that inform and change our actions allow us to evaluate risks and think of new solutions. You use the same skills to evaluate what you buy, how to spend your money, save, the types of products you use, the clothes you wear. These are the same skills but you need to add the right competency into the mix by asking yourself: does my choice help create a more sustainable world?



Competencies for a green economy

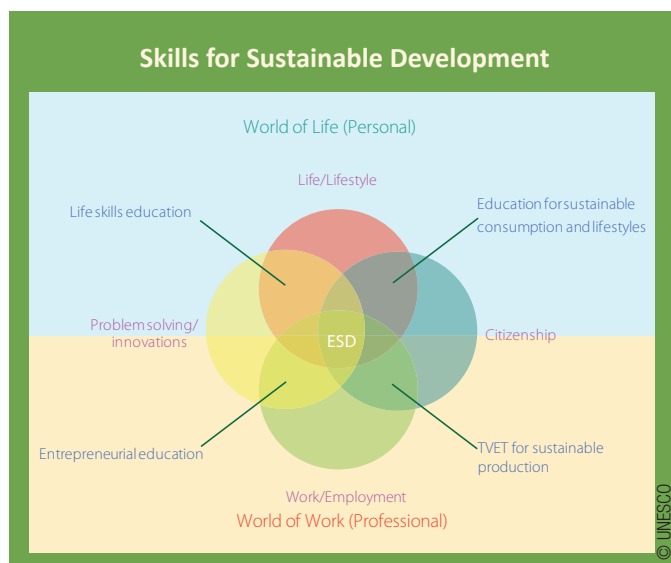
Many of you already have a great number of skills that can be applied to different sectors such as project management skills, gained through a variety of activities, including organizing a sports team for example. These skills, and the creativity to use them in different sectors, are helpful in finding a job or decisions we make in managing our everyday lives. With rapidly changing economies, being able to apply skills in different settings means that workers can better adapt to change. The basic skills remain the same for an accountant, an electrician, or a corporate manager. However, the knowledge and understanding that inform how these jobs are done does have to change. The [Handbook of Sustainable Literacy](#) suggests specific areas of competence we all need, not just for our jobs, but also for our lifestyles:

1. **Ecological literacy.** Do you know how your actions affect natural systems?
2. **Systems thinking.** Can you develop a 'systems thinking' or lifecycle approach to what you buy and use, which looks at when the raw materials are mined, right through to when the different parts are disposed of?
3. **Design and technology understanding.** Do you know about the appropriate designs or technologies to minimize the impacts of technologies you use?
4. **Cultural contexts.** Do you understand your cultural context, so that you can adapt relevant solutions to local contexts or places?

UNESCO calls skills such as critical thinking, assessing and developing ideas “world of life” skills, which also include problem-solving, life skills and skills that allow us to make sustainable consumption and lifestyles decisions every day. Green skills consist not only of skills for the “world of work” but also the skills for the “world

Skills for a green economy

of life," which are important in terms of managing personal affairs and everyday life.



source: *ESD+TVET: Promoting Skills for Sustainable Development*, UNESCO, 2012

Green skills for greener jobs

Think about how you can 'green your skills' for employment, as reported in the ILO report [Skills for Green Jobs: A Global View](#). This is crucial for every job that is part of the green economy, not just jobs in environmental-related sectors like renewable energy. A green economy needs the skills we all already use in many jobs but some transformations and developments are needed as jobs become greener. The ILO report summarizes the main core skills necessary for green jobs as:

- Adaptability and transferability skills to enable workers to learn and apply the new technologies and processes required to green their jobs;
- Strategic and leadership skills to help policy-makers and business to set the right incentives and create conditions conducive to cleaner production, cleaner transportation and so forth;
- Environmental awareness and willingness to learn about sustainable development;
- Coordination, management and business skills to facilitate holistic and interdisciplinary approaches incorporating economic, social and ecological objectives;
- Systems and risk analysis skills to assess, interpret and understand both the need for change and the measures required;
- Entrepreneurial skills to seize the opportunities of low-carbon technologies;
- Innovation skills to identify opportunities and create new strategies to respond to green challenges;
- Communication and negotiation skills to discuss conflicting interests in complex contexts;
- Marketing skills to promote greener products and services;
- Consulting skills to advise consumers about green solutions and to spread the use of green technologies; and
- Networking, IT and language skills to perform in global markets.

The British Government developed a checklist of skills needed for a green economy, obtained through training or transferable knowledge. The summary below highlights some of the skills required. Notice how many are skills we already use, with additions required for a green economy:

1. Skills supporting resource efficiency such as:
 - Business/financial accounting services around carbon and natural environment accounting;
 - Skills to design and adopt technologies, products and processes that are resource-efficient;
 - Project management skills with clear understanding of resource efficiency and sustainability.
2. Skills supporting low carbon industry such as:
 - Scientific and engineering to research and develop renewable energy production;

Skills for a green economy

- Technical skills to install energy efficiency measures and retrofit households and businesses;
- Design skills to use and adopt technologies, products and processes to minimize carbon emissions;
- Operator level actions to minimize carbon emissions (e.g. improving your fuel consumption by maintaining the correct tyre pressures).

3. Skills supporting climate resilience such as:

- Scientific and technical skills for modelling and interpreting climate change projections;
- Risk management skills to provide assessments of future resource availability;
- Skills to design and adopt technologies, products and processes to improve climate resilience.

4. Skills to manage and protect natural assets such as:

- Skills in understanding and conducting environmental impact assessments and understanding and interpretation of environmental legislation targets, ecosystem services design and management and land use planning;
- Skills to design and adopt technologies, products and processes to manage natural assets.

Of course this means workers need to be trained with the right set of sector-specific and generic skills and methods that can support a green economy and help us apply existing and new skills in a more sustainable way. As the ILO report stresses, governments need to make sure that training includes the new knowledge young people need in today's growing economy. For example, while plumbers are fitting new solar water heating using traditional plumbing skills, their competency has changed because they know about the new systems and technologies.



Case study

According to Statistics South Africa, 5% of South Africa's population is disabled, of whom 22% are deaf. Creating the opportunity to integrate the deaf community into the larger economy via sign language is part of a socially inclusive green economy. The [Fulton School for the Deaf](#) uses sign language to increase the capacity of young people to be self-sufficient, enabling them to take part in productive and sustainable economic activities. Young people learn about permaculture, plant nursery management and specialist planting techniques.



Tips

Review the United Kingdom green skills checklist included in the ILO report [Skills for Green Jobs: A Global View](#) (p.104) to help you work out what you need to help green your job sector skills. It can help you decide on course, training or work experience that might help you.



7. Sustainable lifestyles

What are the lifestyle choices and ideas you need to support and thrive in a green economy? What are sustainable lifestyles?



What are sustainable lifestyles?

We can lead a sustainable lifestyle by making choices and taking actions that minimize the use of natural resources, the generation of emissions, wastes and pollution. Creating a sustainable lifestyle means rethinking our ways of living, how we buy and how we organize our everyday lives. It is about transforming our societies towards more equity and living in balance with our natural environment.

Research has shown that, beyond a point, increasing income and consumption does not make people happier and more satisfied. In fact, well-being is closely linked to the feeling of being part of and useful to a community; it relates to how we socialize, exchange, share, educate and build identities – our lifestyles. The sense of belonging in communities and societies that are in balance with our natural environment are critical for encouraging well-being and a sense of belonging: the state of being healthy and happy. Communication skills are critical for the type of innovation that we need. That does not always mean standing up and presenting big solutions,

it's also about the small steps, like turning the tap off, picking and sorting litter and so forth.

According to the UNEP report [Visions for Change: Recommendations for Effective Policies on Sustainable Lifestyles](#), which is based on the results of the Global Survey on Sustainable Lifestyles (GSSL), young people need a holistic, compelling and pragmatic vision of what a sustainable society consists of and how it can be translated at the local and individual level. Making a transition to a green economy involves integrating aspects of this in this holistic vision.

“Unceasing consumption couldn't make us happy and we really feel it. Realizing the opportunity to live in accordance with sustainable development principles makes us happy indeed. That is why the development of a green economy in our country is important for us.”

Green Sail Team, Russia

Shared economy

Today's youth are aware that behind over-consumption lies increased exploitation of natural resources, which fuels environmental challenges. People are progressively turning towards a “shared economy,” an economic system built around the sharing of human and physical assets. This system encourages sharing or renting things you don't have.

The GSSL, which was conducted by UNEP in 2009-10, is one of the largest surveys on sustainable lifestyles. The GSSL explored young people's reactions to sustainability scenarios, some of which were based on sharing systems, such as:

- 'Family take-away' where small-sized families cook extra meals and make them available for others for take away, which helps reduce energy consumption.

Sustainable lifestyles

- 'Collective laundry' – sharing environmentally high-quality washing machines in condominiums or buildings.
- 'Car sharing' providing access to a vehicle upon demand and according to one's needs;
- 'Bicycle centres' facilitate cycling and encourage people to use bikes daily; and
- 'Car pooling' which increases the number of passengers in cars, sharing fuel costs, reducing traffic, emissions and pollution.

GSSL participants responded positively to these social innovations for sustainable living, indicating that the demand for sustainability can be created through concrete solutions.



Case study

Vélib' is the biggest bike-sharing programme in the world. Run by the Paris Mairie (City Hall) since 2007, Vélib' has over 20,000 bikes available 24/7 all year long. Users can rent bicycles from one of the 1,800 bike stations located in every 300 meters in Paris. In its first five years, 138 million people used the rental bicycles, and as of 2012, the system had 225,000 subscribers out of a total urban population of 2.3 million. Many other countries such as China, Brazil and Canada also have bike-sharing programmes.



Case study

Sweden's One Tonne Life Project is about a family that lived a climate-smart lifestyle for over six months, with the aim of reducing their carbon dioxide emissions from 7.3 tonnes per year, which is roughly the average in Sweden, to a minimalistic one tonne.



Tips

Do you want to know more about sustainable lifestyles? Have a look at some of [UNEP's work on sustainable lifestyles for projects](#) and ideas for further information.



Lifestyle choices and ideas you need to support and thrive in a green economy

Addressing environmental challenges like climate change starts with you and the actions you take at home, school or work and in your daily life. Every aspect of our lives can contribute to encouraging sustainable lifestyles, green growth and sufficiency. Consider changes you can make in the core areas of lifestyles such as food, housing, mobility, consumer goods and leisure activities. For example, cooking, cleaning and communication all require access to services and goods, so you can make choices about how you carry out these tasks sustainably and responsibly. The skills you might need to make these choices are created through developing your knowledge base about consumer issues and what information is valid and reliable.

It is crucial to take small steps that will help pave the way to a green economy and sustainable societies. This involves making informed lifestyle choices that are driven by being environmentally conscious, such as:

- Choosing to buy environmentally friendly products, locally produced products as well as

Sustainable lifestyles

certified products that promote environmental benefits and sustainable jobs and encouraging others to do the same;

- Joining or creating your own sustainable community projects. Case studies show what young people have achieved by getting involved and developing their skills whilst volunteering or taking part in community work;
- Looking for alternatives to buying, such as local free-cycling (giving away usable unwanted items to others instead of disposing of them) or exchange sites.



Case study

The [Makhzoumi Foundation](#) in Lebanon runs workshops to help women make solar cookers, using cardboard boxes and aluminium paper, following three basic steps: condensing sun rays, converting light into heat and heat retention. This reduces the impact on local resource use, removes smoke from pollutants in the home and provides a method for sustainable cooking.



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Get Active!

Now consider your lifestyle, from the time you get up until you go to bed at night.

- What choices do you make that affect the environment?
- What choices can you make to support fair and equitable trade?
- What can you do to reduce the need for packaging?
- What can you reuse from the things you already have?
- What other alternatives are there to buying something new?
- How can you alter your transport methods to more environmentally-friendly options?
- How can you change or reduce electricity use?
- How can you alter or reduce water use?
- Can you choose local craftsmen or suppliers to help reduce the carbon footprint of goods and services you buy or use?
- Can you use local, organic or fair trade items



Case study

The [Partnership for Education and Research about Responsible Living \(PERL\)](#) brings together educators and researchers from more than 50 countries who are all working to empower citizens to live responsible and sustainable lifestyles. PERL undertakes research and develops teaching methods and materials on sustainable lifestyles. Check out the PERL website and the [Online Resources](#) section for links to some tools you can use to learn more about sustainable lifestyles.

8. Educating for a sustainable future

Education is key in preparing the future leaders of tomorrow. How can this education help young people rise to the challenges facing them and their environment?



“Education is the most powerful weapon you can use to change the world.”

Nelson Mandela, former President of South Africa

Education, training and skills development

Education is a fundamental enabling condition for any transition to inclusive green societies and a green economy, whether the goal is the creation of new and decent jobs or addressing the mismanagement and loss of our ecosystems. Education and training need to address these issues and encourage employability. The ILO defines employability as “the possession of portable competencies and qualifications that enhance an individual’s capacity to make use of the education and training opportunities available, in order to secure and retain decent work, to progress within the enterprise and between jobs, and to cope with changing technology and labour market conditions.”

Education and training provided by governments, mainly formal education, should help develop

skills that encourage and develop a green economy. It is not just skills for jobs but also life skills: knowing what choices help create and encourage sustainable systems to develop and survive. Unfortunately, as the ILO point out, there is often a mismatch of skills to jobs, which affects employability.

Rising to the challenge

Education can help us work out how to rise to the challenge of sustainable development. UNESCO’s 6th Youth Forum involved young people identifying a need for consistent education support and free education. There is evidence that education reduces inequality in society and that young people have the ability to improve communities and reduce that inequality. However, we need to ensure that we take a holistic approach to the three pillars of sustainable development: economic vitality, social justice and environmental sustainability. Young people can contribute by teaching others by example, helping others to develop skills, and fostering collaboration and cooperation to solve problems.



Case study

Institutions are educating individuals for employment in various sectors, such as the Hotels, Catering and Tourism (HCT) sector, which provides a significant numbers of jobs to workers with little or no formal training. Half of the HCT workforce is youth under 25 years of age. ILO has been actively working with key stakeholders in skills development for HCT and developing tools and educational training materials, available [online](#).

Educating for a sustainable future

Types of education you might think about

Education is not just something that takes place in school; it can take place anywhere, at any time. To help you obtain the right skills, you may pursue a specific study course, but do include courses on some environmental challenges we face. This is one step towards increasing your understanding of sustainability issues and what can be done to address them. In addition to formal education, young people have many other educational options that can help develop their skills for a green economy and green societies, such as learning entrepreneurship and how education helps create business opportunities. You just need to recognize the opportunities for developing skills and learning, whether it's within a job, as part of a community project or at college or school. Here are some examples of opportunities:

- **Technical and vocational education and training:** Initial and continuing education and training provided by schools, training providers or enterprises that impart the skills, knowledge and attitudes required for employment in different occupations (see the UNESCO report [Promoting Skills for Sustainable Development](#));
- **Non-formal education and training:** Organized and sustained educational activities that do not correspond exactly to the definition of formal education. It may take place within or outside educational institutions. This could include adult literacy, basic education for out-of-school children, life skills, work skills and general culture;
- **On-the-job training:** Training undertaken in the workplace which uses job tasks as the basis for training and practice; and
- **Applying skills you already have:** Portable/transferable skills can be used in different socio-cultural or technical environments, or in other occupations, and contribute to greener workplaces.



Get Active!

Lifelong learning is important. Find out what opportunities for learning are available locally. Contact your local authorities and look through your community projects, to see what you could do. Remember, you can learn a lot just by volunteering.



..Case study

The [Green School Campaign 2012](#) aimed to educate and empower Nepali young people on environmental issues and help them adapt to healthy, green and sustainable lifestyles while planting trees around over 200 schools.

Education for sustainable development (ESD): education for the future, for everyone, for everywhere

ESD aims to help people to develop the attitudes, capacities, values, skills and knowledge to make informed decisions for the benefit of themselves and others, now and in the future, and to act upon these decisions. **ESD supports five fundamental types of learning to provide quality education and foster sustainable human development: learning to know, learning to be, learning to live together, learning to do and learning to transform oneself and society.** It allows learners to acquire the knowledge, skills, attitudes and values required to ensure sustainable development while fostering responsible citizens. The UN Decade of Education for Sustainable Development (DESD, 2005-2014) asked: what do we need from people who enter the workforce? Their answer: a person who can handle a crisis, be resilient, become a responsible citizen, adapt to change, recognize and solve local problems with global roots, meet other cultures with respect, and create a peaceful and sustainable society.

Educating for a sustainable future

In recent years, there has been increased focus on the capacities and skills qualities people need to create a more sustainable world and ESD is seen as a potential umbrella of education approaches focused on the well-being of the planet and people. Check out the UNESCO publications [ESD – building a better, fairer world for the 21st century](#) and [Shaping the Education of Tomorrow](#) for more information. The 2014 [final DESD evaluation](#) assesses the growth of ESD throughout the Decade and gives an updated picture of ESD at the end of the Decade. The report also features lessons learned and draws conclusions for future actions on ESD.

The [Global Action Programme \(GAP\) on ESD](#) was launched at the 2014 World Conference on ESD, which took place in Japan. This programme aims to generate and scale-up ESD action in all levels and areas of education and learning to accelerate progress towards sustainable development. The GAP has five priority action areas, with one focusing specifically on empowering and mobilizing youth. The [Roadmap for GAP implementation](#) focuses in particular on supporting youth in their role as change agents for sustainable development through ESD.

The information and tips provided in this guidebook would not be a reality without being supported by education and the shift in our patterns of consumption, in which we all have a role to play.



Get Active!

How can you contribute to multiplying ESD actions, especially related to the green economy and green skills, among youth locally, nationally or internationally? How can youth create opportunities needed to harness the enormous benefits of information and communication technologies for learning and networking?



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Education for sustainable consumption and lifestyles

At the World Summit on Sustainable Development in 2002, delegations recognized that sustainable consumption and production (SCP) is an overarching objective of, and essential requirement for, sustainable development. As a result, the Marrakech Process was created in 2003. This global and informal multi-stakeholder platform was aimed at supporting the implementation of projects and strategies on sustainable consumption and production and developing a Global Framework for Action on SCP, the so-called [10-Year Framework of Programmes on SCP \(10YFP\)](#).

Through the Marrakech Process international task forces, projects on education and lifestyles have been implemented worldwide, such as the Global Survey on Sustainable Lifestyles. The adoption of the 10YFP at the United Nations Conference on Sustainable Development in 2012 gives us a new

Educating for a sustainable future

foundation through a global framework of action to enhance international cooperation to support regional and national initiatives accelerating the shift towards SCP in both developed and developing countries. As with everything else, governments, business and societies need to now come together to implement these programmes, including those involving education and lifestyles.

In November 2014, the 10YFP [Sustainable Lifestyles and Education programme](#) was launched with the vision of creating a world where sustainable lifestyles are desirable, beneficial and accessible for everyone, enabled, supported and encouraged by all sectors of society including governments, the business sector and civil society. The [programme](#) aims to foster the uptake of sustainable lifestyles as the common norm, with the objective of ensuring their positive contribution to addressing global challenges, such as climate change mitigation and adaptation and social well-being. Work area 2 focuses on *educating for sustainable lifestyles*, which includes mobilizing and empowering youth for sustainable lifestyles.



Get Active!

How can we mobilize and empower youth to adopt more sustainable lifestyles and gain green skills? Look for local opportunities for you to get engaged in gaining green skills and promoting sustainable lifestyles. Have a look at the [10YFP Sustainable Lifestyles and Education programme](#) for some ideas.



In Numbers

Sustainable Development Goal 4, which builds on Millennium Development Goal 2, ensures inclusive and quality education for all and promotes lifelong learning. While major progress has been made towards increasing access to education with enrollment in primary education in developing countries reaching 91%, 57 million children still remain out of school. Bolder efforts are needed to make even greater strides for achieving universal education goals. Obtaining a quality education is the foundation to improving people's lives and sustainable development.

[\(Sustainable Development Goals – 17 Goals to Transform our World\)](#)



Tips

Access to education can be difficult but thanks to new technologies, there are options for open source learning for you to investigate including open source (free) courses from some universities introducing sustainability. See the [Online Resources](#) section.



9. Money and earnings

How can we live sustainably, encourage change and save money at the same time? How can we find funding for our ideas to develop social enterprises, cooperatives and local businesses?

"In today's knowledge-based economy, what you earn depends on what you learn. Jobs in the information technology sector, for example, pay 85 per cent more than the private sector average."

William J. Clinton, former President of the United States

Sufficiency, not 'more'

The concept of sufficiency is an alternative to consumerism and an important part of sustainability. Sufficiency is not about sacrifice, denial, or doing without; it is about well-being, and ensuring that you have enough wealth for a comfortable and happy life, without harming people or the planet. Sufficiency challenges the notion that if some is good, then more must be better. So, can you take the challenge to see how to manage your resources? This could save money, but it also challenges values. Start with what you own: not just clothes, music or books, but any items, from lip gloss to a hammer. Look at how much you have, then think about what you buy and why. Do you actually need them, or do you just want them? Are there alternative ways to get them that are environmentally-friendly?



Managing your actions

Our individual choices can save us money and ensure a more sustainable use of resources. Any Internet search reveals ways to adopt a green and sustainable lifestyle that reduces the money we spend, or by investing in products that last or can be easily repaired. The [Worldwatch Institute](#) provides some simple ways for you to reduce your environmental impact, by saving money and living a happier and healthier life, such as:

- **Saving energy to save money:** adjusting a thermostat to a few degrees lower in the winter and a few degrees higher in the summer helps save on energy costs, as well as installing

Money and earnings

compact fluorescent light bulbs, unplugging unused appliances, washing clothes in cold water and air drying them; and

- **Saving water to save money:** taking shorter baths and showers, installing low-flow showerheads and planting drought-tolerant native plants in your garden all help reduce water consumption, saving money.

Save money: don't waste food!

The Food and Agriculture Organization of the United Nations (FAO) estimates that 1.3 billion tonnes of food are wasted each year. Their 2011 study showed that roughly one-third of the edible parts of food produced for human consumption gets lost or wasted globally from initial agricultural production to household consumption. In the UK alone, food waste is estimated to cost families over £12 billion. Reducing food waste helps the environment, food supply and your pocket. Check out the WWF website for some useful tips to start with.

The 2013 report Global Food: Waste Not, Want Not by the Institution of Mechanical Engineers estimated that 30–50% (or 1.2–2 billion tonnes) of all food produced on the planet is lost before we get to eat it.



In Numbers

Almost 50% of the total amount of food thrown away in the UK comes from homes. For every family this represents GBP £480 wasted.

([Love Food Hate Waste](#))



In Numbers

The amount of cropland used to grow the lost and wasted food in the world is estimated at 198 million hectares per year, an area about the size of Mexico.

([World Resources Institute, 2013](#))



Tips

Check out the campaign: Think, Eat, Save – Reduce your foodprint - launched by UNEP, FAO and partners. Their website www.thinkeatsave.org, which provides a one-stop shop for news and resources, lists some valuable ways for you to save money and food. Follow the top ten tips to reduce your “foodprint” and food bill.

Government management

Some governments provide incentives and frameworks to support personal actions for sustainable lifestyles, as well as guidance to organizations such as schools, colleges and businesses on sustainable or green procurement, which is the selection of products and services that minimize environmental impacts. There are also examples of finance and development of schemes such as carbon trading that are designed to encourage investment in a green economy. Incentives from governments can work. For example, in 2007, Australia became the first country to “ban the light bulb,” so that by 2010, the incandescent light bulb was no longer in use. This phase-out will deliver considerable savings to the environment and the economy; the move to more efficient lighting is expected to save around 28 million tonnes of greenhouse gas emissions between 2008 and 2020 and around AUD\$380 million per year by 2020 to the Australian economy.

Money and earnings

Managing purchases

Many argue that it is not easy to shop ethically. Although we can save money in some ways, the harsh fact is that ethical and organic goods can cost more, due to low subsidies from governments and the scale of the industry producing goods intensively. Your money-saving strategy could include planning your purchases before you buy. Think about food as a starting point. Choosing to buy food produced locally and seasonally can help stimulate local businesses. You can try to grow your own vegetables, fruit and herbs in your home or garden. Also check out where the food you buy comes from; ask if there is no label. The greater the distance, the more fuel and resources are used. You can make a shopping list and plan meals before shopping; this will help you buy the amount of food that is needed so that you don't waste food. There are also opportunities for encouraging recycling, reusing, repairing or renting. Look for products that are made from recycled materials, or items you might rent such as cars or bikes.



Get Active!

Think before you buy. Ask yourself these questions before buying something: do you need what you are thinking of buying? Could you reuse something else instead, or could you borrow it from someone else?



Tips

When buying, consider buying from local shops, a cooperative or social enterprise. Buy certified products such as fair trade, organic, forest or marine stewardships. Be more ethical in your shopping; look for online guides that can help you become an ethical consumer. Some suggestions are listed in the [Online Resources](#) section. There are also alternatives to buying: could you rent a car or bike, or set up or exchange services in your area?

Managing your money

Many financial institutions offer ethical investments or help companies and households choose more sustainable options. They could be supporting renewable energy programmes with preferential loans such as the [MEDREP Finance initiative](#) that is seeking to aid the development of renewable energy initiatives around the Mediterranean, for example by providing an interest rate subsidy to the potential customers of solar water heaters. There are also specific banks where your money will be invested to help people and the planet at the same time. In addition, many financial institutions are working with organizations such as UNEP to create preferential loan schemes or to support environmental initiatives.



Tips

You can search for [ethical banks](#) to see what options are available to you in your area.

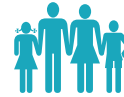


© Shutterstock/Rawpixel.com

Money and earnings

Funding your projects

Young people are seeking to make changes in their communities and around the world; however, they often struggle when it comes to finding funding for their projects. One method is time banking but others exist too, including crowdfunding, which enables entrepreneurs, non-profits, and their supporters to solicit funds from individuals ("the crowd") via the Internet. See [Online Resources](#) for starting points for raising funds. Many countries now have collectors of recyclable materials who buy plastic bottles, metals, glass or paper from door to door, or retrieve these materials from the streets or dumpsites. Collecting, if done in a socially equitable way, could provide funding for individuals or projects.



Case study

The [Informal Waste Pickers and Recyclers Project](#) was formed for the protection and inclusion of the collectors and recyclers of waste in Colombia, Ethiopia, Madagascar and Vietnam, and to help improve their incomes. ENDA, a French-based organization, is helping them better organize themselves in associations, cooperates or companies, so that they can negotiate service agreements with the local authorities. ENDA also helps them gain access to land and buildings where they can set up warehouses to store their recyclable materials in larger quantities and get better prices by selling them directly to the industries rather than to intermediaries.



10. Get connected and act together

A green transition relies on us all making small steps and cooperating. Where do we start?

“Sticks in a Bundle are Unbreakable.”

Kenyan proverb

Social capital – it’s not all about money

We all need to feel a sense of belonging and ownership of the place we live in. Try a simple experiment: think about where you live, work or study. How many people do you know or connect with on a daily basis? This gives you a rough measure of your social connectivity. What can you do to increase this connectivity, using existing institutions or organizations? The important thing to remember is that connecting with other people or organizations that focus on community projects can create support and resources without the need for money. This is what “social capital” means. It’s an important part of a green economy, as it can develop mutual sharing of help and support.

Connecting with others

The threats to our planet and ourselves may seem daunting, but we can all make sustainable lifestyle choices to help alleviate the threats, such as environmental and social challenges. Connecting with like-minded people, or neighbours who share your concerns about a local issue or need, is a key step in building momentum for action and there are different ways of finding them, from the Internet and social media sites, to looking in your local newspaper or library to find out what is going on in your area and how you can get involved. If you cannot find an existing community of interest, you can create one yourself.



In Numbers

The UNEP report [Visions for Change: Recommendations for Effective Policies on Sustainable Lifestyles](#) states that many young adults tend to think they are well informed about global challenges such as climate change, but point to a striking lack of information at the local level, with 65.2% of participants claiming they are not informed about how their local areas and neighbourhoods are managed.



Building networks for a green economy

Whether you are trying to provide a voice for services or training or developing a business idea or simply looking for a job, your network is important. The question is: how do you build networks? The most traditional way is to talk to people. Find out if anyone knows someone interested in the same areas as you. Look for

Get connected and act together

people you might be able to contact by reading your local newspapers to get some ideas and inspiration. You can also volunteer and build up your contacts that way, as well as through social media such as Facebook.

Connecting with decision-makers

Connectivity with decision-makers is important, although it can be challenging for young people whose opinions and contributions may not always be welcomed by leaders. Getting your voice heard can be difficult, but it is possible if you are prepared to do your research and seek out partnerships of like-minded people. There are ways to get your voice heard through student representatives, or by speaking to local councillors. Do you have a school council that could be involved in an environmental project? Once you have found who can help you get your point across, get your research right and present sensible and clear ideas to get the support of your local community or peers, then you will be well on your way to being heard. The essential thing is to provide practical and balanced opinions and actions.

Beware of the data divide

Getting connected is often talked about in terms of modern technologies such as the telephone and the Internet. While the use of social media is available to many people across the planet, this is not the case for everyone. There is a data divide where people, especially those living in extreme poverty, cannot connect to the same information. Also, think about the more traditional forms of media when trying to reach people, such as letters, posters, radio broadcasts or leaflets – as these technologies can reach a wider audience. For example, [Russia's Green Sail group](#) works with local communities to increase awareness of forest issues through radio broadcasts. Print media such as newspapers and newsletters can also serve the same purpose.



In Numbers

According to the [World Internet Users Statistics](#), Internet connectivity still varies from region to region. Although 46% of the world population has connectivity to the Internet, over 88% of the North American population is connected, compared with 29% of Africa's population.



Get Active!

Start your own awareness campaign about green opportunities and invite people to join you, by networking with various groups through different forms of communication (face-to-face, print, radio or television broadcasts, online communications). Make sure that:

- The printed communications you produce such as posters and brochures are polite and targeted to specific audiences by getting the language right;
- You talk to like-minded people and groups in your community;
- Send a message to people in charge of your company, school or college asking to see if you can investigate saving money through green initiatives.



Case study

A member of the [Tunza Youth Advisory Council](#) in Venezuela promotes the green economy in workshops in schools, colleges and universities in several states. The workshops explain what the green economy is and its importance, giving examples of how a green economy works and projects that promote a green economy. It has trained over 300 young people.

11. Online resources

1. The YXC Guidebook Series

International Labour Organization (ILO): www.ilo.org
United Nations Environment Programme (UNEP): www.unep.org
United Nations Educational, Scientific and Cultural Organization (UNESCO): www.unesco.org
UNEP/UNESCO YouthXchange: www.youthxchange.net

Videos

Green Economy Solutions: We Will Not Wait: www.youtube.com/watch?v=pSaGMBsjgD8

2. What is a green economy?

Rio+20 Outcome Report – The Future We Want: www.uncsd2012.org/thefuturewewant.html
Keeping Track of our Changing Environment - From Rio to Rio+20: www.unep.org/geo/pdfs/keeping_track.pdf
UNEP Report: Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication: www.unep.org/greeneconomy/Portals/88/documents/ger/ger_final_dec_2011/Green%20EconomyReport_Final_Dec2011.pdf
UNEP Green Economy Initiative: www.unep.org/greeneconomy/
World Wildlife Fund (WWF): www.worldwildlife.org/
WWF – Footprint Calculator: <http://footprint.wwf.org.uk/>
WWF: Sustainable living to reduce your personal footprint: www.wwf.org.au/what_you_can_do/change_the_way_you_live/sustainable_living/
David Suzuki Foundation: www.davidsuzuki.org/what-you-can-do/reduce-your-carbon-footprint/
Green Economy Group: <http://greeneconomygroup.com/company/green-economy-definition/>
UN Reducing Emissions from Deforestation and forest Degradation (REDD): www.un-redd.org
UN REDD+ Programme: www.un-redd.org/AboutREDD/tabid/582/Default.aspx
Forest Stewardship Council: www.fsc.org
Marine Stewardship Council: www.msc.org
The Billion Tree campaign: www.plant-for-the-planet-billiontreecampaign.org
Global Action Plan: www.globalactionplan.org.uk
United Nations Population Fund- Information on urbanization: www.unfpa.org/pds/urbanization.htm
Fair Trade Tourism (FTT), South Africa: <http://www.fairtrade.travel>
The Responsible Tourism Handbook: www.alive2green.com/tourism/Handbooks/STHB1-abridged/#/24/

Videos

UNEP Green Economy Video Channel: www.unep.org/greeneconomy/InformationMaterials/Multimedia/tabid/4608/Default.aspx
Youth and the Green Economy (UNEP), Germany, 2011: www.youtube.com/watch?v=Vwmlj0E9lmM

Rio+20 videos on sustainable inclusive societies: www.unesco.org/new/en/rio-20/video-playlist/
UNRISD: Social Dimensions of Green Economy and Sustainable Development: www.unrisd.org/greeneconomy

3. Green economy: making it happen

Ministerial Conference on Environment and Development (2005) in Asia and the Pacific: www.unep.org/Documents.Multilingual/Default.asp?DocumentID=429&ArticleID=4759&I=en
The European Centre for the Development of Vocational Training (CEDEFOP): www.cedefop.europa.eu
Promoting Safety and Health in a Green Economy (ILO, 2012): www.ilo.org/safework/info/WCMS_175600/lang--en/index.htm
From Transition to Transformation Report 2012: www.undp.org/content/dam/undp/library/Environment%20and%20Energy/From%20Transition%20to%20Transformation.pdf
UNEP Green Economy Initiative Advisory Services: www.unep.org/greeneconomy/AdvisoryServices/tabid/4603/language/en-US/Default.aspx
India's National Rural Employment Guarantee (NREGA): www.nrega.nic.in/netnrega/home.aspx
The European Commission: Corporate Social Responsibility (CSR): http://ec.europa.eu/enterprise/policies/sustainable-business/corporate-social-responsibility/index_en.htm
International Organization for Standardization: www.iso.org
ISO 26000 Social Responsibility: www.iso.org/iso/iso26000
Greenpeace - Greenwashing: www.stopgreenwash.org
The European Commission's SMEs (Small Medium Sized Enterprises), resource efficiency and green markets report: http://ec.europa.eu/public_opinion/flash/fl_342_en.pdf
The UN Global Compact's 10 Principles: <http://www.unglobalcompact.org/what-is-gc/mission/principles>
A Compilation of Green Economy Policies, Programs, and Initiatives from Around the World: www.uncsd2012.org/content/documents/compendium_green_economy.pdf
Green New Deal: www.greennewdeal.eu
Finance: Supporting the transition to a global green economy: www.unep.org/greeneconomy/Portals/88/documents/ger/15.0_Finance.pdf

Videos

An Animation introducing green economy: www.youtube.com/watch?v=3zmk4RD0Oow
Green economy coalitions for change: www.youtube.com/watch?v=ZVCoKix5ygs

4. Green jobs

ILO's Green Jobs section: <http://www.ilo.org/global/topics/green-jobs/lang--en/index.htm>
Global Employment Trends for Youth 2013: A generation at risk: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_212423.pdf

Online resources

Green Jobs: Towards Decent Work in a Sustainable, Low-Carbon World: www.unep.org/PDF/UNEPGreenjobs_report08.pdf
Making Environmental Employee Engagement Happen: www.unepfi.org/fileadmin/documents/ifyouaskus_engagement.pdf
Women and the Green Economy (WAGE): www.earthday.org/wage
Job Corp – Green Jobs: www.jobcorps.gov/Libraries/Recovery/outreach_one_pager.sflb
11 of the Fastest Growing Green Jobs: <http://environment.nationalgeographic.com/environment/sustainable-earth/11-of-the-fastest-growing-green-jobs/>
Green Equity Toolkit: Advancing Race, Gender and Economic Equity in the Green Economy: www.raceforward.org/research/reports/green-equity-toolkit-advancing-race-gender-and-economic-equity-green-economy
UN Music & Environment Initiative: www.unep.org/music_env/about.asp
UNEP Goodwill Ambassadors: www.unep.org/gwa/

Videos

EEA Driving the Green Economy: Best practice & the global Frontrunners:

- www.youtube.com/watch?v=s6Qxe5KcDkK&feature=relmfu
- www.youtube.com/watch?v=rGLaAQMiRTA&feature=relmfu
- www.youtube.com/watch?v=sUxXPe7Diko&feature=relmfu
- www.youtube.com/watch?v=LDp83j_kVzM

UNEP outreach work (media and entertainment):

- www.youtube.com/watch?v=wHipPj4zpf
- www.youtube.com/watch?v=XTCPjUSJ85o
- www.youtube.com/watch?v=4QhScM8RpBo
- www.youtube.com/watch?v=RO8BWx-jFos&list=PL3D1B303CE0351AF2&index=1
- www.youtube.com/watch?v=GalP6nYGtb0

5. Green entrepreneurship and social innovation

How to write a proposal: www.fundsforngos.org/how-to-write-proposal/
Ecopreneurist: Green & Sustainable Business Ventures: www.ecopreneurist.com
Green Business Network: www.greenbusinessnetwork.org/green-your-business/webinars.html
Entrepreneur Community Online: www.entrepreneurcommunityonline.com
infoDev: growing innovation: www.infodev.org/en/Index.html
Erasmus for Young Entrepreneurs: www.erasmus-entrepreneurs.eu

Starting my own small business: Participant's workbook: <http://unesdoc.unesco.org/images/0014/001449/144928e.pdf>
Starting my own small business: Facilitator's Guide: <http://unesdoc.unesco.org/images/0014/001449/144933e.pdf>
Youth Venture: <http://blog.youthventure.org/2011/01/green-entrepreneurship.html>
First Work: www.firstwork.org/wp/2012/01/informing-youth-about-the-green-economy
Kopernik: <http://kopernik.info>
The Youth Entrepreneurship Facility (Kenya, Uganda, Tanzania): www.yefafrika.org/index.php?do=/kenya
Ashoka: Innovators for the Public: www.ashoka.org
The Green Skills Network: www.greenskillsnetwork.ca/index.html
The Community of Young Entrepreneurs: <http://yecomunity.com/en/>
The Kaknock Foundation: www.knockfoundation.org/whowere/team.html
Echoing Green: www.echoinggreen.org
Worldview Impact Foundation: <http://www.worldviewimpact.com>
21 Young Leaders on Climate Change: http://issuu.com/wcsd/docs/ebook_wcsd
Eco-Innovation: The UNEP Approach: www.unep.org/ecoinnovationproject/
Promoting Resource Efficiency in SMEs (UNEP): www.unep.org/RECP/PRE-SME
Resource Efficient and Cleaner Production: www.unep.org/RECP
Responsible Production Handbook (UNEP): www.unep.org/ResponsibleProduction
Sustainable Development Goals (SDGs): <https://sustainabledevelopment.un.org/?menu=1300>

Videos

Introducing the Green Deal: www.youtube.com/watch?v=ngOpzxIc2mg&feature=endscreen&NR=1
How to fund the Green New Deal: www.youtube.com/watch?v=Ez0hnm78qhc

6. Skills for a green economy

The Handbook of Sustainable Literacy: <http://arts.brighton.ac.uk/stibbe-handbook-of-sustainability>
ILO Skills for Green Jobs: www.ilo.org/skills/projects/WCMS_115959/lang--en/index.htm
Skills for a green economy: www.gov.uk/government/uploads/system/uploads/attachment_data/file/32373/11-1315-skills-for-a-green-economy.pdf
UNESCO Transforming technical and vocational education and training (TVET): www.unesco.org/new/en/education/themes/education-building-blocks/tvet
Bonn Declaration on Education for Sustainable Development (2009): <http://unesdoc.unesco.org/images/0018/001887/188799e.pdf>
Videos:

Online resources

Green Economy and Sustainable Development: Bringing Back the Social: www.youtube.com/watch?v=O5lBwrJcUOk

7. Sustainable lifestyles

8 steps to a more eco-friendly kitchen: <http://webecoist.momtastic.com/2009/02/21/eco-friendly-green-kitchen-tools>

Energy-saving recipes: reducing your carbon footprint in the kitchen: www.sheknows.com/food-and-recipes/articles/809028/energy-saving-recipes-reducing-your-carbon-footprint-in-the-kitchen

Buy ethical and environmentally friendly products through various online stores: www.ecomarket.com, <http://shop.ecoplum.com>, www.beyondskin.co.uk/, www.ethicalfashionshow.com, www.indigenousdesigns.com, www.muso-koroni.com, www.threadflip.com, <http://www.green-providers.co.uk>

Collaborative consumption hub: <http://collaborativeconsumption.com>

Reselling and swapping rather than buying new items: <http://www.poshmark.com>, www.oxfam.org.uk/shop, www.swapstyle.com, www.dignswap.com, <http://www.thredup.com>

PETA's Shopping Guide to Compassionate Clothing: www.peta.org/living/fashion/cruelty-free-Clothing-guide.aspx

The UNEP Resource Kit on Sustainable Consumption and Production: www.unep.org/Documents.Multilingual/Default.asp?DocumentID=468&ArticleID=4688&I=en

Visions for Change: Recommendations for Effective Policies on Sustainable Lifestyles (Based on the Global Survey on Sustainable Lifestyles): www.unep.org/publications/contents/pub_details_search.asp?ID=6193

The Partnership for Education and Research about Responsible Living (PERL): <http://livingresponsibly.org>

- Personal Consumption & Climate Change: https://eng.hihm.no/content/download/66761/988193/file/PERL_AM_Toolkit_2.pdf
- Learning to Live Together – Education for Sustainable Living: <https://eng.hihm.no/content/download/68661/1040314/file/LtoLT%20booklet.pdf>
- Learning to Transform Oneself and Society – Education for Sustainable Living: <https://eng.hihm.no/content/download/68660/1040310/file/LtoTO&S%20booklet.pdf>
- Learning to Be – Education for Sustainable Living: https://eng.hihm.no/content/download/68663/1040322/file/LearningToBe_FINAL.pdf

Sustainable Lifestyles Research Group (SLRG) - University of Surrey: www.sustainablelifestyles.ac.uk

Sustainable Everyday Project: www.sustainable-everyday-project.net

SPREAD Sustainable Lifestyles 2050 Project: www.sustainable-lifestyles.eu

10YFP Sustainable Lifestyles and Education programme: www.unep.org/10yfp/lifestyles

Videos

Living Outside The Box Sustainable Lifestyles: www.youtube.com/watch?v=kmrX9z8T4Zo

The Future We Want - Children and Youth Voices at Asia Pacific UNEP TUNZA: www.youtube.com/watch?v=sxRh0Ssq07zs

8. Educating for a sustainable future

Education for sustainable development (ESD) – UNESCO: www.unesco.org/new/en/education/themes/leading-the-international-agenda/education-for-sustainable-development/education-for-sustainable-development

The Millennium Development Goals Report 2011: [www.un.org/millenniumgoals/pdf/\(2011_E\)%20MDG%20Report%202011_Book%20LR.pdf](http://www.un.org/millenniumgoals/pdf/(2011_E)%20MDG%20Report%202011_Book%20LR.pdf)

The Green Economics Institute: www.greeneconomics.org.uk/, www.facebook.com/greeneconomics

EC/FAO Food Security Programme: www.foodsec.org/web/about/overview/en

Open Learn (from the Open University): www.open.edu/openlearn/nature-environment?media_filter%5B%5D=702&per_page=150

The OpenCourseWare Consortium: www.ocwconsortium.org
SALTO-YOUTH: www.salto-youth.net

The Africa Youth Leadership, Sustainability and Ethics Online Course: <http://ecyg.wikispaces.com/AYLSE>

Network for teaching entrepreneurship: www.nfte.com/what
Education TVET 3rd international congress: www.unesco.org/new/en/education/themes/education-building-blocks/tvet

UNESCO's resources for Teaching and Learning for a Sustainable Future: www.unesco.org/education/tlsf
Facing the future: www.facingthefuture.org/GlobalIssues/Resources/GlobalSustainabilityResources/tabid/133/Default.aspx

The Federation for Community Development Learning: <http://www.fcld.org.uk/publications/publications-for-download/sustainability-tasters/>

UNESCO's ESD website: portal.unesco.org/education/en

A toolkit on Education for Sustainable Development: www.esdtoolkit.org/esd_toolkit_v2.pdf

Young Masters programme – free programme on ESD investigation as part of a worldwide community: www.goypm.org/en/frontpage

Shaping the Education of Tomorrow. 2012 Report on the UN Decade of Education for Sustainable Development: <http://unesdoc.unesco.org/images/0021/002166/216606e.pdf>

Global Action Programme on ESD: <http://en.unesco.org/gap>

UNESCO Roadmap for Implementing the Global Action Programme on ESD: <http://unesdoc.unesco.org/images/0023/002305/230514e.pdf>

GAP ESD Clearinghouse: <http://en.unesco.org/gap-esd-clearinghouse>

The 10-Year Framework of Programmes on SCP: www.unep.org/10yfp

Online resources

The 10YFP Sustainable Lifestyles and Education Programme: www.unep.org/10yfp/lifestyles
Tools for the Hotels, Catering and Tourism Sector: www.ilo.org/tourism
SCP Global Clearinghouse: www.scpclearinghouse.org
Education in the Sustainable Development Goals: <https://sustainabledevelopment.un.org/topics/education>

Online courses

Massachusetts Institute of technology (MIT)
OpenCourseWare: Free Online Courses Materials: <http://ocw.mit.edu/index.htm>
The Johns Hopkins Bloomberg School of Public Health's OpenCourseWare (OCW): <http://ocw.jhsph.edu/>
Carnegie Mellon University's Open Learning Initiative: <http://oli.cmu.edu>
Tufts University OpenCourseWare: <http://ocw.tufts.edu/>
Utah State University's OpenCourseWare: <http://ocw.usu.edu/>
EdX – online courses and classes from the world's best: www.edx.org

Videos

Ban Ki-moon Advocates for a New Green: www.youtube.com/watch?v=94dAXB_NuvE
Introduction to the Decade for Education for Sustainable Development: www.youtube.com/watch?v=xk7u0fZpqzU&feature=player_embedded
Sustainable Societies in Africa: Modules on ESD (with video): www.unep.org/training/programmes/Instructor%20Version/Overview/index.html
Shaping the Future We Want - Ten key findings from the UN Decade of Education for Sustainable Development: <https://www.youtube.com/watch?v=zQ9ETC8bk70>

9. Money and earnings

Worldwatch Institute: www.worldwatch.org/node/3915

General crowdfunding platforms include:

- AppBackr: www.appbackr.com
- Indiegogo: www.indiegogo.com
- KickStarter: www.kickstarter.com
- Peerbackers: <http://peerbackers.com>
- RocketHub: www.rockethub.com

Not-for-profit platforms:

- CauseVox: www.causevox.com
- FirstGiving: www.firstgiving.com
- Greenfunder: www.greenfunder.com
- Razoo: www.razoo.com

Green funding sources:

- The Freechild Project: www.freechild.org/funds4progress.htm
- Believe Begin Become: www.believe-begin-become.com
- Green VC: www.greenvc.org/green-funding-sources.html

10. Get connected and act together

CitéGreen (reward points for actions that are good for the environment): www.citegreen.com/
Zimride (rideshare service): www.zimride.com
Carbonrally (helps members focus their efforts on challenges that reduce carbon emissions): www.carbonrally.com
MakeMeSustainable (a personal workout to reduce your carbon footprint): <http://makemesustainable.com>
Celsias.com (organizes its community around "projects" that users can create and join): www.celsias.com/
Change.org (a social network offering a variety of philanthropic actions): www.change.org
The Super Green Me site: (offers each person all the practical tools): www.supergreenme.com
ICT4D – Connecting People for a Better World: www.freetechbooks.com/ict4d-connecting-people-for-a-better-world-t544.html
Taking IT Global (Online group for young people interested in positive change): www.tigweb.org

Videos

Shout- we can change the world: www.youtube.com/watch?v=FYyJl8myudk&feature=related

12. Useful terms

Biodiversity

A term we use to describe the variety of life on Earth. It refers to the wide variety of ecosystems and living organisms: animals, plants, their habitats and their genes and the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

Carbon footprint

The total set of greenhouse gas (GHG) emissions caused by an organization, event or product. For simplicity of reporting, it is often expressed in terms of the amount of carbon dioxide, or its equivalent of other GHGs, emitted.

Climate change

A statistically significant variation of either the average state of the climate or in its variability, persisting for an extended period (typically decades or longer). This change may be due to natural internal processes or external forcing, or to persistent anthropogenic changes in the composition of the atmosphere or in land use. The United Nations Framework Convention on Climate Change (UNFCCC) defines climate change as a change that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods. The UNFCCC makes a distinction between climate change attributable to human activities and climate variability attributable to natural causes.

Consumers

Everyday purchasers of goods or services in retail, or end users in the distribution chain of goods or services.

Consumption

Expenditure during a particular period on goods and services used in the satisfaction of needs and wants, or process in which the substance of a thing is completely destroyed, and/or incorporated or transformed into something else.

Cooperative

A business owned, controlled, and operated by a group of users for their own benefit. Each member contributes equity capital, and shares in the control of the firm on the basis of one-member, one-vote principle (not in proportion to his or her equity contribution).

Crowdfunding

The practice of funding a project or venture by raising many small amounts of money from a large number of people, typically via the Internet.

Corporate Social Responsibility (CSR)

CSR encompasses not only what companies do with their profits, but also how they make them. It goes beyond philanthropy and compliance and addresses how companies manage their economic, social, and environmental impacts, as well as their relationships in all key spheres of influence: the workplace, the marketplace, the supply chain, the community, and the public policy realm.

Ecological footprint

A measure of how much biologically productive land and water an individual, population or activity requires to produce all the resources it consumes and to absorb the waste it generates using prevailing technology and resource management practices. The ecological footprint is usually measured in global hectares (a common unit that encompasses the average productivity of all the biologically productive land and sea area in the world in a given year). Because trade is global, an individual or country's footprint includes land or sea from all over the world.

Ecosystem

Any functioning unit at any scale and should be determined by the problem being addressed. It could, for example, be a grain of soil, a pond, a forest, a biome or the entire biosphere. According to the CBD definition, ecosystem is "a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit."

Ecosystem services

The contributions that ecosystems make to human well-being, and arise from the interaction of biotic and abiotic processes. Following the Millennium Ecosystem Assessment, the term 'services' is generally taken to include both goods and services.

Education for sustainable development (ESD)

ESD aims to help people to develop the attitudes, skills and knowledge to make informed decisions for the benefit of themselves and others, now and in the future, and to act upon these decisions. ESD supports five fundamental types of learning to provide quality education and foster sustainable human development: learning to know, learning to be, learning to live together, learning to do and learning to transform oneself and society. ESD concerns all levels of education and all social contexts (family, school, workplace, community). It allows learners to acquire the skills, capacities, values and knowledge required to ensure sustainable development, and fosters responsible citizens.

Employability

Possession of portable competencies and qualifications that enhance an individual's capacity to make use of the education and training opportunities available in order to secure and retain decent work, to progress within the enterprise and between jobs, and to cope with changing technology and labour market conditions.

Entrepreneur

Someone who exercises initiative by organizing a venture to take benefit of an opportunity and, as the decision maker, decides what, how, and how much of a good or service will be produced. According to economist Joseph Alois Schumpeter (1883-1950) they (1) greatly value self-reliance, (2) strive for distinction through excellence, (3) are highly optimistic (otherwise nothing would be undertaken), and (4) always favour challenges of medium risk (neither too easy, nor ruinous).

Environmental capital

Indicators of success by programmes encouraging green economy and employment. are using environmental capital rather than natural capital to define the services we get from the planet. It encompasses all environmental series and may become more useful in obtaining measurements of success.

Fossil fuels

Carbon-based fuels from fossil carbon deposits, including coal, oil, and natural gas.

Green building

A green building focuses on ecological aspects. It is designed, specified and constructed with energy and water efficiency in mind, and minimising any adverse impact of the building on its inhabitants as well as the environment.

Green economy

UNEP has developed a working definition of a green economy as one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive. A green economy is one whose growth in income and employment is driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services. These investments need to be catalyzed and supported by targeted public expenditure, policy reforms and regulation changes. This development path should maintain, enhance and, where necessary, rebuild natural capital as a critical economic asset and source of public benefits, especially for poor people whose livelihoods and security depend strongly on nature.

Green growth

An environmentally sustainable economic progress that fosters low-carbon, socially inclusive development. It articulates concise and clear entry points and policy approaches for making real gains in eco-efficiency and transferring to low-carbon development, synergising climate action with development goals.

Green jobs

Green jobs are work in agriculture, industry, services and administration that contributes to preserving or restoring the quality of the environment. They reduce the environmental impact of enterprises and economic sectors, ultimately to levels that are sustainable. Green jobs are found in many sectors of the economy, from energy supply to recycling, and from agriculture and construction to transportation.

Green technology/clean technology

Technology that improves the resource or energy efficiency of production, ultimately to sustainable levels, reduces waste and/or increases the use of non-polluting, renewable resources.

Greenhouse gas (GHG)

Atmospheric gases that trap the heat and are responsible for warming the earth and climate change. The major greenhouse gases are carbon dioxide (CO₂), methane

(CH₄) and nitrous oxide (N₂O). Less prevalent but very powerful greenhouse gases are hydro fluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆).

Greenwashing

Greenwashing is the act of misleading consumers about the environmental practices of a company or the environmental benefits of a product or service. Companies are notably accused of greenwashing when they spend more time and money claiming to be green through advertising and marketing than actually implementing business practices that minimise their environmental impact.

International Organization for Standardization (ISO)

The world's largest developer and publisher of International Standards. ISO is a non-governmental organization that forms a bridge between the public and private sectors. Many member institutes are part of the governmental structure of their countries, or are mandated by their government, whilst other members have their roots uniquely in the private sector, having been set up by national partnerships of industry associations. Therefore, ISO enables a consensus to be reached on solutions that meet both the requirements of business and the broader needs of society.

Lifestyles

In this publication, the word lifestyle refers more broadly and more simply to ways of life, encapsulating representations, values and beliefs, behaviours and habits, institutions, economic and social systems.

Low carbon economy

A low carbon economy is a new economic, technological and social system of production and consumption to conserve energy and reduce greenhouse gas emissions, compared with the traditional economic system, whilst maintaining momentum towards economic and social development.

Natural capital

Natural assets in their role of providing natural resource inputs and environmental services for economic production. Natural capital is generally considered to comprise three principal categories: natural resource stocks, land and ecosystems. All are considered essential to the long-term sustainability of development for their provision of "functions" to the economy, as well as to mankind outside the economy and other living beings.

Non-formal education

Any organized and sustained educational activities that do not correspond exactly to the definition of formal education. Non-formal education may therefore take place both within and outside educational institutions and cater to persons of all ages. Depending on country contexts, it may cover educational programmes to impart adult literacy, basic education for out-of-school children, life-skills, work-skills and general culture. Non-formal education programmes do not necessarily follow the 'ladder' system, and may have differing durations and may or may not confer certification of the learning achievements.

Useful terms

On-the-job training

Training undertaken in the workplace, which uses the tasks of the job as the basis for training and practice.

Permaculture

The development of agricultural ecosystems intended to be sustainable and self-sufficient

Portable skills/transferable skills

Skills which can be introduced in a different socio-cultural or technical environment, or which can be used in other occupations.

Renewable energy

Energy sources that are, within a short time frame relative to the Earth's natural cycles, sustainable, and include non-carbon technologies such as solar energy, hydropower, and wind, as well as carbon-neutral technologies such as biomass.

Resources

Naturally occurring assets that provide benefits through the provision of raw materials and energy used in economic activity (or that may provide such benefits one day) and that are subject primarily to quantitative depletion through human use. They are subdivided into four resource categories: mineral and energy, soil, water and biological.

Skill

Ability to carry out a manual or mental activity, acquired through learning and practice. The term "skills" is used throughout this document as an overarching term for the knowledge, competence and experience needed to perform a specific task or job.

Social capital

The norms and networks that enable collective action. It encompasses institutions, relationships, and customs that shape the quality and quantity of a society's social interactions. Increasing evidence shows that social capital is critical for societies to prosper economically and for development to be sustainable.

Social innovation

New ideas that resolve existing social, cultural, economic and environmental challenges for the benefit of people and planet. A true social innovation is systems-changing – it permanently alters the perceptions, behaviours and structures that previously gave rise to these challenges. It is an idea that works for the public good. Social innovations come from individuals, groups or organizations, and can take place in the for-profit, nonprofit and public sectors.

Sufficiency

The concept of sufficiency provides an alternative economic model to consumerism, and is a necessary component of sustainable lifestyles. It is a philosophical ideal that offers the possibility of a higher quality of life while simultaneously reducing the human impact on the natural world. Sufficiency challenges the notion that if some is good, then more must be better; instead, it emphasises enoughness. Sufficiency is not about sacrifice, denial, asceticism or doing without; it is about wellbeing and being well.

Sustainable development

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development includes economic, environmental and social sustainability, which are independent and mutually reinforcing pillars, and can be achieved by rationally managing physical, natural and human capital. Poverty eradication, changing unsustainable patterns of production and consumption and protecting and managing the natural resource base of economic and social development are overarching objectives of, and essential requirements for, sustainable development.

Sustainable lifestyles

A way of living enabled both by efficient infrastructures, goods and services, and by individual choices and actions that minimize the use of natural resources, and generation of emissions, wastes and pollution, while supporting equitable socio-economic development and progress for all. Creating sustainable lifestyles means rethinking our ways of living, how we buy and how we organize our everyday life. It is also about altering how we socialise, exchange, share, educate and build identities. It is about transforming our societies and living in balance with our natural environment.

Technical and vocational education and training (TVET)

Initial and continuing education and training provided by schools, training providers or enterprises that impart the skills, knowledge and attitudes required for employment in a particular occupation, or group of related occupations, in any field of economic activity.

Time banking

An alternative monetary system that bases its value on units of time rather than on commodities or other items of value such as cash. Time banking focuses on the value of one hour of labour, and was developed during the 1980s in order to increase social capital by focusing on the value of the individual rather than the value of a hard currency.

Well-being

The state of being healthy and happy. It is correlated with many different factors, including the capacity to meet one's needs. It is beyond financial wealth indicators such as GDP. However, research has shown that, beyond a point, increasing consumption and GDP does not make people happier and more satisfied. Wellbeing is also closely correlated to social capital, including the feeling of being part of and useful to a community.

Youth

The United Nations, for statistical purposes, defines 'youth', as those persons between the ages of 15 and 24 years. Children are those persons under the age of 14. It is, however, worth noting that Article 1 of the United Nations Convention on the Rights of the Child defines 'children' as persons up to the age of 18. This was intentional, as it was hoped that the Convention would provide protection and rights to as large an age-group as possible and because there was no similar United Nations Convention on the Rights of Youth. Within the category of "youth", it is also important to distinguish between teenagers (13-19) and young adults (20-24), since the sociological, psychological and health problems they face may differ.

13. About YXC

The YouthXchange Initiative

UNEP and UNESCO started the YouthXchange (YXC) Initiative in 2001 to promote sustainable lifestyles among young people (aged 15-24) through education, dialogue, awareness-raising and capacity-building. At the national and local levels, YXC training activities are secured through a diverse network of partners, with the support of a printed training kit and a website www.youthxchange.net.

The YXC training kit on responsible consumption

The YXC training kit provides provides information, ideas, tips and good practices on topics such as sustainable consumption, lifestyles, mobility, waste reduction, energy and resource efficiency, smart and responsible shopping and so forth. To date, the YXC guide has been translated into more than 20 languages, including: Arabic, Azeri, Basque, Catalan, Chinese, Filipino, Flemish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian, Portuguese, Slovenian, Spanish, and Turkish. From China to Italy and Dubai to Mexico City, UNEP and UNESCO estimate that the guide has been distributed to more than 400,000 people worldwide. It is downloadable from www.unep.org and www.unesco.org.

The YXC thematic guidebooks

In 2011, UNEP and UNESCO embarked on the development of thematic YXC guidebooks, which present global challenges, such as climate change, to young people so they can better understand how such challenges are connected to their everyday lifestyle choices. The *Climate Change and Lifestyles Guidebook* (2011) was the first YXC thematic guidebook and it explores the challenges, opportunities and good practices of climate change. The *Green Skills and Lifestyles Guidebook* (2016) is the second YXC thematic guidebook and connects the issues of the green economy, green jobs, green societies and the skills needed to transition to the green economy to young people and their lifestyles.

The YXC Network

YXC works with young people aged 15-24 as well as educators, non-governmental organizations (NGOs), trainers and youth leaders around the world. YXC reaches young people through a network of national partners in more than 45 countries. YXC has become a network of organizations that actively pursue education for sustainable consumption and lifestyles and work at the local level with similar materials and pedagogical approaches. Some YXC partners also have local versions of the YXC website.

The YXC partners

The YouthXchange partners all over the world have made the project a reality and are living proof of how complex sustainable lifestyle values can be transmitted to young people, while having fun and exchanging ideas and active experiences.



The United Nations Educational, Scientific, and Cultural Organization (UNESCO)

The United Nations Educational, Scientific and Cultural Organization (UNESCO) was founded on November 16, 1945. This specialized United Nations agency's mission is to contribute to the building of peace, the eradication of poverty, sustainable development and intercultural dialogue through education, the sciences, culture, communication and information.

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This publication is a contribution to:

– **The Global Action Programme (GAP) on Education for Sustainable Development**, which seeks to generate and scale-up ESD as the follow up to the United Nations Decade of Education for Sustainable Development. The GAP's priority action area #4 focuses on empowering and mobilizing youth.

For more information: <http://en.unesco.org/gap>

– **The 10-Year Framework of Programmes on Sustainable Consumption and Production's Sustainable Lifestyles & Education Programme**, which aims to foster the uptake of sustainable lifestyles as the common norm, with the objective of ensuring their positive contribution to addressing global challenges.

For more information: www.unep.org/10yfp/lifestyles

United Nations Environment Programme (UNEP)

The United Nations Environment Programme was created in 1972 as the voice for the environment within the UN system. Its mission is to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations.

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