

Energy - Key Driver to Achieve the Sustainable Development Goals

“Ensure access to affordable, reliable, sustainable and modern energy for all”: With Goal 7 of the Agenda 2030, energy is finally being recognized as a key enabler for development. Universal access to energy, a higher share of renewable energy and massive improvements in energy efficiency are now part of the top global priorities for sustainable development in the years to come. However, energy and energy-related issues are contributing to almost all Sustainable Development Goals (SDGs).

This factsheet summarizes some important aspects how access to energy, renewable energy, and energy efficiency directly support the achievement of the SDGs.



End poverty in all its forms everywhere

Access to energy services is a pre-requisite for economic development and makes entrepreneurial activities beyond daylight hours possible. The production and commercialization of efficient stoves as well as the rise of the renewable sector (e.g. sale, installation and services of solar panels, pico PV lamps etc) create jobs and small business, leading to income generation for both women and men. Furthermore, families save money and time due to reduced fuel demand for cooking and lighting.



End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

95% of staple food needs to be cooked before they can be eaten. Not only in humanitarian settings like refugee camps the supply with sufficient cooking fuels is of high relevance to enable people to prepare their meals. Improved access to efficient technologies and fuels also makes the preparation of more nutritious food that needs to be cooked for a long time (e.g. beans) more likely. Furthermore, to increasing agricultural productivity, energy is needed for irrigation as well as for cooling, drying, milling, pasteurizing, and further processing activities.



Ensure healthy lives and promote well-being for all at all ages

Energy is a key component to a functioning health system: vaccines and medicines need to be refrigerated, equipment needs sterilization and light is needed for operations and emergencies at night. Improved technologies and fuels for cooking, heating and lighting emit less particulate matter (PM) and carbon monoxide (CO), thus reducing the risk of respiratory diseases and eye infections, especially in women and in children under five years. Furthermore, by replacing traditional stoves and kerosene lamps with clean cookstoves and solar lanterns, the risk of burns, injuries and fires is reduced.



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Electricity enables the use of modern educational media and communication technologies in schools, including computers, Internet or movies. Lighting makes evening classes possible and permits home study even after nightfall. Efficient cooking technologies reduce working time of children and women in collecting firewood thus making educational activities more likely. School feeding programs can reduce the cost of fuel and offer more pupils a warm meal.



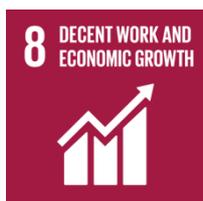
Achieve gender equality and empower all women and girls

The percentage of time spent on unpaid domestic work by women and girls, such as fetching water, gathering firewood, cooking, is reduced by modern energy services. Enhancing the use of enabling technology, in particular information and communication technologies, to promote the empowerment of women is only possible with access to energy, since information and communication technologies, including mobile phones, need energy to operate.



Ensure availability and sustainable management of water and sanitation for all

More than 660 million people worldwide do not have access to clean drinking water. Water purification and desalination using solar or wind energy can help to address this issue. Water-related ecosystems such as forests can be protected by introducing energy-saving cookstoves and efficient technologies for charcoal production, thus reducing the demand for woodfuel. Erosion can be diminished.



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Production, sales and installation of PV products and related services as well as the production and commercialization of improved stoves creates jobs and small businesses for men and women. Renewable energy employed 8.1 million people around the world in 2015 (excluding large hydropower). Furthermore, energy access and energy efficiency enable enhanced productivity and inclusive economic growth.



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

To make industries more sustainable, energy efficiency and renewables are key for emitting less CO₂. Furthermore, for universal access to the Internet in least developed countries as well as for increasing access to information and communication technologies, including Internet and mobile phones, energy access is a prerequisite.



Make cities and human settlements inclusive, safe, resilient and sustainable

Access to energy is a basic service for ensuring access for all to adequate, safe and affordable housing. For example, indoor and outdoor lighting in the evening as well as safe and healthy cooking energy are basic needs. Furthermore, clean cooking and lighting addresses household and ambient air pollution thus contributing to sustainable cities.



Ensure sustainable consumption and production patterns

To reduce food losses along production and supply chains, including post-harvest losses, energy is crucial for cold storage, drying, etc. Furthermore, efficient cookstoves and sustainable forestry practices including efficient charcoal production contribute to the sustainable management and efficient use of natural resources.



Take urgent action to combat climate change and its impacts

Fossil fuel use is the primary source of Carbon dioxide (CO₂), which accounts for two third of all global greenhouse gas emissions. Thus, renewable energy and energy efficient technologies are crucial to combat climate change. In addition, up to 25% of black carbon emissions come from burning solid fuels for household energy needs.



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Efficient technologies such as improved stoves for cooking and heating reduce pressure on forests and thus help combat deforestation and desertification. Using dung as fertilizer instead for cooking land degradation can be decreased. Sustainable forestry management practices, afforestation and reforestation are already part in many projects that promote sustainable access to cooking energy.



Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

To enhance international cooperation on all levels, knowledge sharing and the use of enabling technology, in particular information and communications technology, electricity is a prerequisite as any device that connects to the Internet needs energy, as well as Internet providers, server farms, etc.