

Economic Sustainability

Scouts4GreenApp

Affordable and Clean Energy

Unit 2.2

Developed by SCNG



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Learning Outcomes

I. Affordable and Clean Energy

- Knows what the 2030 Agenda and Sustainable Development Goals are
- Knows, which Sustainable Development Goals (SDGs) relate to Economic Sustainability
- Understands how Economic Sustainability Goals relate to the the other sustainability themes: Ecological and Economic Sustainability
- Understands the vocabulary relating to Economic Sustainability

Introduction



What is Affordable and Clean Energy ?



An ideal type of energy sustainability should embody the principles of accessibility, environmental responsibility, and economic viability. Therefore, it should prioritize ensuring that energy resources are accessible and affordable to all while minimizing environmental impact. Additionally, it should be socially responsible, ensuring that energy production and consumption respect communities and their rights. Furthermore, it should prioritize its own financial sustainability.

In this model, the costs associated with environmental degradation and social impacts are factored into the overall costs of energy production and consumption. This holistic approach ensures that the true costs of energy are accounted for, moving beyond traditional considerations of economic profitability alone.

The 2030 Agenda and the Sustainable Development Goals (SDGs)?



- In 2015, the United Nations member states unanimously endorsed and embraced the 2030 Agenda for Sustainable Development: <https://sdgs.un.org/goals>
- This agenda delineates 17 Sustainable Development Goals (SDGs), designed to tackle various intertwined global challenges and propel sustainable development by 2030.
- The 2030 Agenda stands as a collective rallying cry, urging cooperation to eliminate poverty, hunger, safeguard the environment, and ensure equitable prosperity.
- These 17 SDGs encompass a total of 169 specific targets, categorized into three primary themes: economic sustainability, environmental sustainability, and social sustainability.
- A pivotal aim of the 2030 Agenda is to foster global partnerships for sustainable development, uniting governments, the private sector, civil society, and international organizations in this shared mission.

Why it Matters?

A well-established energy system supports all sectors: from businesses, medicine and education to agriculture, infrastructure, communications and high-technology.

Access to electricity in poorer countries has begun to accelerate, energy efficiency continues to improve, and renewable energy is making impressive gains. Nevertheless, more focused attention is needed to improve access to clean and safe cooking fuels and technologies for 2.8 billion people.

Why should I care about this goal?

For many decades, fossil fuels such as coal, oil or gas have been major sources of electricity production, but burning carbon fuels produces large amounts of greenhouse gases which cause climate change and have harmful impacts on people's well-being and the environment. This affects everyone, not just a few. Moreover, global electricity use is rising rapidly. In a nutshell, without a stable electricity supply, countries will not be able to power their economies

How many people are living without electricity?



Nearly 9 out of 10 people now have access to electricity, but reaching the unserved 789 million around the world – 548 million people in sub-Saharan Africa alone – that lack access will require increased efforts.

Without electricity, women and girls have to spend hours fetching water, clinics cannot store vaccines for children, many schoolchildren cannot do homework at night, and people cannot run competitive businesses. Slow progress towards clean cooking solutions is of grave global concern, affecting both human health and the environment, and if we don't meet our goal by 2030, nearly a third of the world's population – mostly women and children – will continue to be exposed to harmful household air pollution.

How are the consequences of lack of access to energy?



Lack of access to energy may hamper efforts to contain COVID-19 across many parts of the world. Energy services are key to preventing disease and fighting pandemics – from powering healthcare facilities and supplying clean water for essential hygiene, to enabling communications and IT services that connect people while maintaining social distancing.

What can we do to fix these issues??

Countries can accelerate the transition to an affordable, reliable, and sustainable energy system by investing in renewable energy resources, prioritizing energy efficient practices, and adopting clean energy technologies and infrastructure.

Businesses can maintain and protect ecosystems and commit to sourcing 100% of operational electricity needs from renewable sources.

Employers can reduce the internal demand for transport by prioritizing telecommunications and incentivize less energy intensive modes such as train travel over auto and air travel. Investors can invest more in sustainable energy services, bringing new technologies to the market quickly from a diverse supplier base.

You can save electricity by plugging appliances into a power strip and turning them off completely when not in use, including your computer. You can also bike, walk or take public transport to reduce carbon emissions.

Brainstorming



What are your ideas??

Formulate and deliver concrete strategies aimed at fostering Economic sustainability and realizing the objectives outlined in Economic Development Goals (SDGs) 7 across different facets of everyday existence.

Quiz



Quiz

Consider two companies, Company A and Company B, both producing the same product. Company A packages its product in plastic, transports it using polluting vehicles, and some of its production ends up in large open landfills. However, Company A invests profits in financing the creation of a park in the nearby city. Company B, on the other hand, uses compostable packaging but faces lower profits and cannot invest as much in social initiatives. Which company is adopting a more sustainable model?

- A) Company A, because it invests in social initiatives despite its unsustainable production practices.
- B) Company B, because it prioritizes environmentally friendly packaging despite lower profits.
- C) Both companies are equally sustainable because they balance their unsustainable practices with positive social contributions.
- D) Neither company is sustainable because they both have significant negative environmental impacts.

Quiz Explanation:

Company B is adopting a more sustainable model because it prioritizes environmentally friendly packaging despite facing lower profits.

While Company A invests in social initiatives, its unsustainable production practices contribute to environmental degradation, which undermines overall sustainability.

Company B's focus on reducing environmental impact aligns more closely with sustainability goals, even though it may not invest as much in social initiatives.

Case studies



Case Study analysis

Cutting-edge technologies are appearing with new pioneers around the world – not just in urban California with self-driving electric cars, but also in off-grid households in rural Africa.

With the right backing, convenient and functional sustainability can be a ‘first choice’: rather than fossil fuels being the ‘default’ and sustainability the ‘fix’, rural Africa is setting the bar higher and demanding the benefit of renewable energy standards of living from the outset.

Azuri CEO Simon Bransfield-Garth participated in COP26: read his blog to find out more about what it all means.



Case Study analysis



Newmont commits to reduce absolute scope 1 and 2 GHG emissions 32% by 2030 from a 2018 base year. Newmont also commits to reduce scope 1 and 2 GHG emissions 32% per Gold Equivalent Ounce (GEO) within the same timeframe. Newmont commits to reduce absolute scope 3 GHG emissions 30% by 2030 from a 2019 base year.



Case Study analysis

ChargeLab builds software for managing electric vehicle chargers. Its mission is to solve smart EV charging at scale. ChargeLab's customers include fleets, building owners, convenience stores, and utilities. They leverage ChargeLab's charging station management system and open APIs to manage thousands of EV chargers efficiently.

