





Outline:

- What is sustainability?
- Why is it important?
- How is the UAE integrating the idea of sustainability?

Defining Sustainability:

- Sustainability is the ability to exist and develop without depleting natural resources for the future. Sustainable practices support ecological, human, and economic health and vitality.
- Sustainability means meeting present needs without compromising the ability of future generations to do the same. Sustainability is not just environmentalism. Embedded in most definitions of sustainability we also find concerns for social equity and economic development.
- https://www.mcgill.ca/sustainability/files/sustainability/what-is-sustainability.pdf

Why is Sustainability Important?

- Sustainability provides both short-term and long-term benefits.
- To sustain Earth's ecosystems and our way of life, we must make more sustainable choices.
- If harmful processes are maintained with no change, it is likely that we will run out of fossil fuels, huge numbers of animal species will become extinct, and the atmosphere will be irreparably damaged.
- Clean air and nontoxic atmospheric conditions, growth of resources that can be relied upon, and water quality and cleanliness, are all **benefits of sustainability**.

There are 3 pillars of sustainability:

- 1- Environmental protection.
- 2- Social Development.
- 3- Economic Development.



1- Environmental Protection

- Environmental protection is one of the most frequently discussed aspects of sustainability.
- It is concerned with the reduction of carbon footprints, water usage, non-decomposable packaging, and wasteful processes as part of a supply chain.
- These processes are often cost-effective, financially beneficial, and crucial for environmental sustainability.

2- Social Development

- Social development involves fair treatment of employees, ethical business practices, and sustainable engagement with stakeholders and the community.
- This may be achieved through more responsive benefits, like better maternity and paternity benefits, flexible scheduling, and learning and development opportunities. For example, Businesses should adopt sustainable labor practices, ensuring fair wages and safe working conditions for adult employees.
- Are you familiar with names of businesses that use child labor? (This is illegal)

3- Economic Development

- Economic development is probably the simplest form of sustainability.
- To be economically sustainable, a business must be profitable and produce enough revenues to be continued into the future.
- The challenge lies in balancing profitability with sustainability.
- Rather than making money at any cost, companies should attempt to generate profit in accordance with other elements of sustainability.

- In January 2012, Sheikh Mohammed launched the Green Economy initiative under the slogan: A green economy for sustainable development. Under this initiative, the UAE seeks to become a global hub and a successful model of the new green economy, to enhance the country's competitiveness and sustainability and preserve its environment for future generations. A green economy is an economy that aims at reducing environmental risks.
- Through this initiative, the UAE aims to become a world leader in maintaining a sustainable environment to support long-term economic growth while protecting the environment. (BOTH ECONOMIC AND ENVIRONMENTAL PRESERVATION)
- The initiative includes programs and policies in energy, agriculture, investment, and sustainable transport, alongside new environmental and construction policies.

- 1. The first field of green energy aims to promote the production and use of renewable energy. (Renewable energy is **energy that has been derived from earth's natural resources that cannot run out** such as wind and sunlight.)
- 2. The second field includes government policies aimed to encourage investments in green economy and to facilitate the production, import, export and re-export of green products and technologies. (GREEN PRODUCTS -a sustainable product designed to minimize its environmental impacts during its whole life-cycle and even after it's of no use , examples -Ballpoint Pens Made From Recycled Water Bottles, Recycled Plastic Toothbrush, Recycled Toilet Tissue).

- 3. The third field relates to developing urban planning policies that preserve the environment and to raise the efficiency of housing and buildings environmentally. (An economically and environmentally sustainable city)
- 4.The fourth field consists of means for dealing with the effects of climate change, promote organic agriculture, maintain biodiversity and protect the ecological balance. (Biodiversity- groups of living organisms.)
- 5.The fifth field aims at rationalizing (balancing) the use of water resources, electricity and natural resources and recycle waste.
- 6. The sixth field includes development and promotion of green technology. (Green technology— describes the use of technology and science to reduce human impacts on the natural environment.

 Solar Panels, Wind Energy, Composting, Electric Vehicles.)

Examples of Sustainability in the UAE: Reducing the use of plastic.

- Carrefour was the first UAE retailer to offer a recyclable carrier bag in 2007 and they have chosen to reduce the circulation of single-use plastic by 500 million bags each year.
- In 2019, Carrefour announced that is will stop the use of plastic by 2025.

Sustainability in Expo2020

- Expo 2020 Dubai: It installed renewable energy systems with a combined total capacity of 5.5 megawatts on all permanent building projects across the site.
- How does Expo 2020 support sustainability?
- Reducing water consumption

Achieved a 52.4% reduction of water demand in our buildings, compared to the water requirements baseline of the Dubai Electric and Water Authority (DEWA).

Reducing waste

To reduce waste, Expo 2020 introduced the <u>Planet Over Plastic Pledge</u>, encouraging international participants and commercial partners to minimize packaging, reduce single-use materials, and recycle on-site.

• Generating clean energy

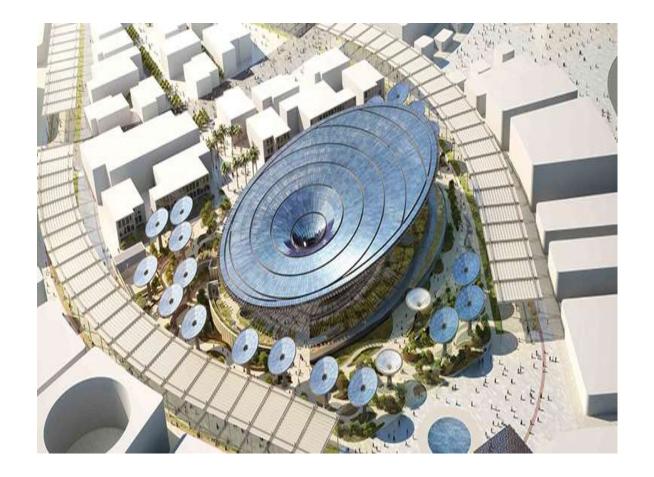
Installed renewable energy systems with a combined total capacity of 5.5 megawatts on all permanent building projects across the Expo site.

Sustainability in Expo2020

 Using sustainable building materials work with environmentally and socially responsible suppliers, use sustainable materials during construction, and the timber used on site carry sustainable forestry certification

Terra pavilion/ Sustainability Pavilion

Expo 2020 Dubai has made it one of its subthemes. In line with that, it has created Terra, the Sustainability pavilion, stationed as the centerpiece of the sustainability district.



Masdar City in Abu Dhabi

- Masdar City is one of the world's most sustainable urban communities, designed as a low-carbon development and a hub for clean technology.
- 90% of construction waste is reused or recycled
- The city remains around 15 degrees Celsius cooler than the surrounding area because of its unique design



Masdar City in Abu Dhabi



- The city promotes eco-friendly transportation, including a bike-sharing system, though dedicated bike paths are still under development.
- To enhance sustainability, Masdar City eliminates the need for light switches and water taps, using motion sensors to reduce energy and water consumption by over 50%.

Masdar City

Masdar City
to be the first
"4 PEARL"
community in
Abu Dhabi based
on the emirate's
mandatory
sustainability

Masdar City buildings designed to be at least

40% more energy and water efficient than conventional urban buildings

40,000 people will work, research and study at Masdar City

Buildings are constructed with low-carbon cement and other locally-sourced and verified materials

Uses power generated by

10MW solar PV farm and
1MW rooftop solar PV

40%
reduction in
embedded carbon in
building materials
achieved

2+
MILLION
passengers carried
using sustainability
mobility technologies





Give other examples of sustainability in the UAE.



Thank you!



References

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