

# 11 SUSTAINABLE CITIES AND COMMUNITIES



## Designing a Sustainable City

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# Sustainable Cities and Communities Goals

The Sustainable Development Goal (SDG) 11 aims to make cities and human settlements inclusive, safe, resilient, and sustainable. This goal recognizes that cities and communities are essential to achieving sustainable development, and it sets targets to address the challenges of urbanization, such as inadequate housing, poor infrastructure, and environmental degradation.

Some of the key targets of SDG 11 are:

1. Ensuring access to adequate, safe, and affordable housing and basic services for all.
2. Developing sustainable and resilient infrastructure, including transport systems, water and sanitation systems, and energy systems.
3. Strengthening efforts to protect and preserve cultural and natural heritage sites.
4. Reducing the environmental impact of cities and communities through sustainable urban planning and management.
5. Enhancing inclusivity and reducing inequalities, including promoting affordable and accessible public transport, safe and inclusive public spaces, and universal access to information and communication technologies.





## Why Sustainable Cities and Communities Goal is Important?

SDG 11 is important because it aims to create sustainable and inclusive cities and communities. This is necessary because more than half of the world's population lives in urban areas, and this number is expected to increase. Achieving the targets of SDG 11 can help address challenges such as inadequate housing, poor infrastructure, environmental degradation, and social inequalities. It can also improve the quality of life for residents and promote a healthy and sustainable future for all.





# Facts about sustainable cities in the world

1. Over two-thirds of the world's population is expected to live in cities by 2050.
2. Buildings account for a large portion of global energy consumption and greenhouse gas emissions.
3. Retrofitting existing buildings and constructing energy-efficient buildings could lead to significant energy savings.
4. Air pollution is a major issue in cities, with over 80% of city dwellers exposed to unsafe levels.
5. Copenhagen has a high percentage of commuters who cycle to work or school.
6. Green infrastructure, such as green roofs, can help reduce the urban heat island effect.
7. Public transportation can significantly reduce greenhouse gas emissions.
8. The city of Curitiba, Brazil, has a successful public transportation system that has improved air quality and promoted social inclusion and economic development.
9. Urban agriculture can provide fresh produce and improve food security.
10. Renewable energy sources, such as solar and wind power, can reduce greenhouse gas emissions and provide sustainable energy for cities.





# Sustainable Cities in Morocco : Facts and Figures



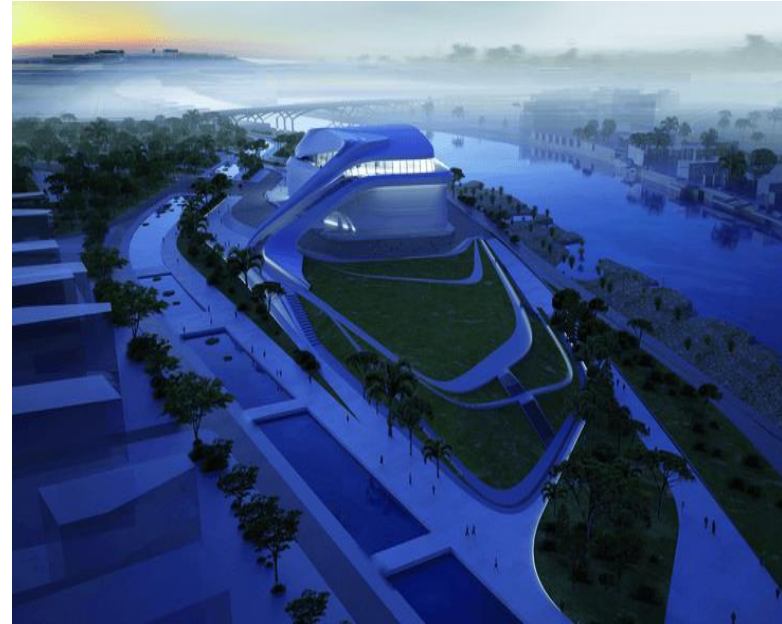
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Morocco has made significant progress towards building sustainable cities, with several initiatives aimed at promoting renewable energy, improving public transportation, and reducing pollution. Here are some examples:

1. **Renewable Energy:** Morocco has invested heavily in renewable energy, with the goal of generating 52% of its electricity from renewable sources by 2030. The country has built several large-scale solar power plants and wind farms, and has also launched a program to promote rooftop solar installations.
2. **Green Buildings:** Morocco has implemented a building code that requires new constructions to meet energy efficiency standards, and has also launched a program to retrofit existing buildings to make them more energy-efficient.
3. **Sustainable Transportation:** Morocco has developed an extensive public transportation system, with bus and tram lines in several cities. The country is also investing in high-speed rail and is exploring the possibility of building a metro system in Casablanca.
4. **Waste Management:** Morocco has implemented a waste management strategy that includes recycling and composting, and has also launched initiatives to reduce plastic bag usage.
5. **Sustainable Tourism:** Morocco is promoting sustainable tourism, with several initiatives aimed at promoting ecotourism and preserving natural and cultural heritage sites

## Rabat City, Morocco

- ◆ Morocco's efforts towards sustainable cities have shown promising results, and the country is working towards achieving its goal of building sustainable, livable cities for its citizens.
- ◆ While there are many initiatives aimed at building sustainable cities, there are also several challenges that need to be addressed.





# Sustainable Cities Challenges

1. **Financing:** Building sustainable cities requires significant investments .Financing sustainable infrastructure projects can be expensive, and there is a need for innovative funding mechanisms to attract investment.
2. **Governance:** Building sustainable cities requires coordinated efforts across different levels of government, as well as collaboration with private sector and civil society organizations.
3. **Equity:** Sustainable cities should be designed to meet the needs of all citizens, regardless of income or social status. However, marginalized communities often face greater challenges in accessing basic services and infrastructure.
4. **Infrastructure:** Building sustainable cities requires significant investments in infrastructure, including public transportation, energy-efficient buildings, and green spaces. However, existing infrastructure in many cities is often outdated and in need of repair or replacement.
5. **Education and Awareness:** Building sustainable cities requires education and awareness-raising among citizens, as well as training for policymakers and practitioners.

## **Education and sustainable cities projects**

**A sustainable cities project with students can have multiple objectives, including raising awareness, fostering collaboration, developing critical thinking, promoting action, and building knowledge and skills.**





# Designing a Sustainable City Project

Place : School

Time frame : March 20th to March 28th



# My Project Objectives

1. **Raise Awareness:** to raise awareness among students about the challenges facing cities and the importance of sustainable development.
2. **Foster Collaboration:** A sustainable cities project with students can provide an opportunity to foster collaboration and teamwork, as well as develop leadership and communication skills.
3. **Develop Critical Thinking:** A sustainable cities project can encourage students to think critically about complex issues, such as energy efficiency, waste management, and transportation.
4. **Promote Action:** A sustainable cities project can inspire students to take action in their own communities, whether through small individual actions or larger-scale projects.
5. **Build Knowledge and Skills:** A sustainable cities project can also provide an opportunity for students to build knowledge and skills in areas such as urban planning, engineering, and environmental science. This can help prepare them for future careers and further education in related fields.

# My Project 3 Steps

## A presentation on sustainable cities

an opportunity for students to learn about sustainable development and apply that knowledge in a practical and creative way. By providing information about the design of a sustainable city, they can learn about the various components that make a city sustainable, like energy-efficient buildings, renewable energy sources, green spaces, and efficient transportation systems

## Workshop on designing a sustainable city

Students learn about sustainability in a practical and creative way, encourages critical thinking, collaboration, and problem-solving skills, besides using their organizing skills and their art talents in drawing and painting.

## Showcasing

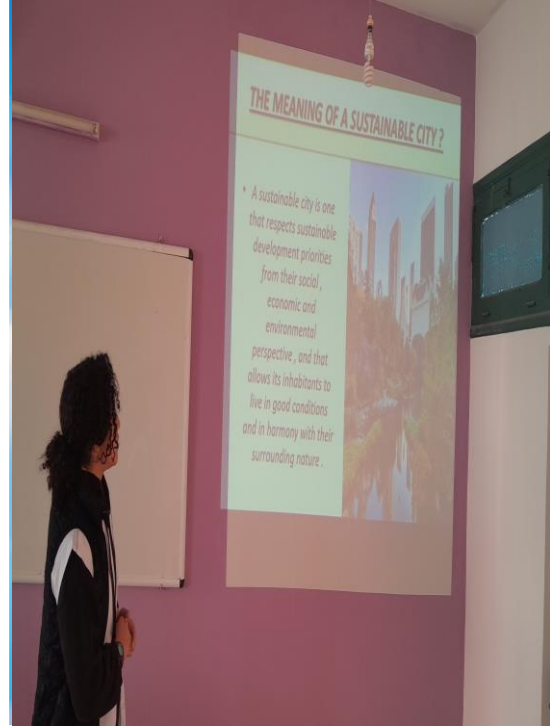
It provides an opportunity for them to showcase their creativity, knowledge, and skills in sustainable development. By sharing their designs, they can receive feedback from their peers and other stakeholders, which can help them improve their designs and proposals. Besides improving their communicative skills



An aerial photograph of a modern architectural complex. The central feature is a large, rectangular building with a flat roof covered in a dense layer of green vegetation, likely a rooftop garden. To the left of this building is a curved, multi-level courtyard area with a light-colored wall and a small, white, box-like structure. The courtyard is filled with various green plants and trees. The building itself has a modern design with large windows and a mix of light and dark colors. The entire scene is set against a backdrop of a bright blue sky with soft, white clouds. The text "Step 1 Presentation Pictures" is overlaid in a large, bold, yellow font in the lower center of the image.

# Step 1 Presentation Pictures





An aerial photograph of a modern urban development. The image shows a large building with a green roof, a curved walkway, and a central courtyard with trees and a small structure. The scene is framed by stylized clouds and a blue sky. The text "Step 2 :Workshop on Designing a Sustainable City" is overlaid in yellow.

## Step 2 :Workshop on Designing a Sustainable City











An aerial perspective of a modern urban development. A multi-story building with a white facade and dark window bands is partially visible on the right. Its roof is covered in a dense, organized grid of green plants. To the left of the building, a curved, light-colored walkway or ramp winds through a lush area of trees and shrubs. A small, white, box-like structure sits near the center. The entire scene is framed by soft, white clouds and a bright blue sky, suggesting a clean, sustainable environment.

## Step 3 : Showcasing a Sustainable City Design













# The Impact of Designing a Sustainable City Project

I can say that the project has a good impact on the students. A sustainable city project with students can help foster a sense of environmental responsibility and inspire young people to become agents of change in creating a more sustainable future for all. A sustainable city project with students can increase awareness, develop skills, promote critical thinking, inspire action, prepare future leaders, and contribute to the creation of more sustainable communities.



**"Sustainable development is the pathway to the future we want for all. It offers a framework to generate economic growth, achieve social justice, exercise environmental stewardship and strengthen governance."**

**Ban Ki-moon**

# Useful Links

- ◆ - <https://www.un.org/sustainabledevelopment/cities/>
- ◆ - <https://sustainablecities.net/>
- ◆ <https://iclei.org/>
- ◆ - <https://www.c40.org/>
- ◆ - <https://www.greencitiesinternational.org/>
- ◆ <https://www.worldbank.org/en/topic/urbandevelopment/brief/sustainable-cities>
- ◆ - <https://www.sud-net.org/>
- ◆ - <https://www.smartcitiesdive.com/>
- ◆ - <https://www.moroccancenter.org/>
- ◆ <http://www.moroccosustainablecities.com/>
- ◆ <http://www.moroccosustainablecities.com/>
- ◆ <https://www.ma.undp.org/content/morocco/en/home.html>