Green University Strategy

Believing in the pioneering role of Alexandria University in changing many societal and environmental beliefs and practices that could negatively affect climate changes and carbon emissions, and in the belief of the Egyptian leadership in the importance of universities' commitment to participate in developing environmentally friendly infrastructure, arranging universities according to sustainable development processes and adherence to green environment standards. It was important to have a proposal that fits the nature of the environment and Alexandria University more accurately.

This proposal has been prepared as part of the community service and environmental development sector initiative towards the implementation of the state's general policies that were launched by the necessity of sustainability and the role of universities in preserving the green environment through the university's unity and activities and the product of scientific research and its application.

As this proposal adopts the implementation of the goals of the United Nations to achieve true sustainable development, whether for the university community or the surrounding community, in line with Egypt's 2030 Sustainable Development Plan and in accordance with the recommendations of the United Nations on the necessity of campus sustainability.

Whereas, the sustainability measure for green universities is concerned with environmentally friendly green universities and depends on 10 basic axes that represent the basic concepts of the principles of preserving the environment, sustainability, environmentally friendly infrastructure and standards for both energy, climate exchange, waste management, water management, internal transport, environmental quality, and sustainability compliance with environmental laws and legislation.

The proposal includes a set of integrated standards on **strategies**, tools and resources that the university should adopt and use in order to achieve the principle of sustainability. And also to bring about a positive change in the environmental aspect on the university campus by emphasizing the achievement of sustainability in university buildings, by taking the necessary measures to reduce environmental impacts and work to reduce

the negative environmental footprint of Alexandria University and raise the positive environmental footprint of the university.

Whereas, the green economy in the context of sustainable development is one of the important tools available to achieve the areas of development, and the green economy contributes to eliminating waste of resources, achieving economic growth, promoting social inclusion, improving human conditions, creating job opportunities and providing decent work for all. At the same time, concern for the continuation of the planet's ecosystems in the proper performance of their functions, and a clear understanding of the interdependence between environmental sustainability and good political practices and effective institutional mechanisms, so that this will be decisive criteria for setting an effective national policy and making a fundamental contribution to the international efforts to achieve sustainable development.

Objectives :

 • Contributing to spreading the culture of sustainability in Egyptian universities.

• To contribute to making the buildings of Alexandria University environmentally friendly.

• Promote university-led social change in relation to sustainability goals.

• Contributing to achieving global goals for preserving the environment.

Proposed criteria to achieve the principle of green sustainability:

1. Energy and Climate Change (EC).Using solar energy as a clean source of electricity as an alternative to electricity based on fuels.

2. Providing green spaces on campus.

3. Transfer within the university.Adopting means of transportation inside and outside the university campus for students, staff and faculty members that do not pollute the environment.

4. Waste Management (WS).

5. Water (WR).

 Smart Green University Proposal Indicators :

1. Energy and Climate Change (EC)

According to this indicator, solar energy is relied on as a clean and renewable source of electricity instead of relying on traditional sources of electric energy that depend on fossil fuels and pollute the environment. In this context, we suggest:

• The use of lighting poles inside the university campus equipped with solar cells for night lighting.

• Putting solar energy cells on the roofs of buildings inside the campus to provide those buildings with electric energy during work periods.

• Supplying cafeterias on campus with solar energy cells to generate electricity instead of the traditional sources of electric energy

• Adopting the use of LED lighting that save electrical energy inside the campus buildings instead of the traditional lighting that use more electrical energy.

• Taking into account the use of devices that help to save electricity as much as possible on the campus.

• Establishing a mechanism to save the use of electric energy inside the university campus that ensures the ideal use of electric energy inside the classrooms, as well as administrative offices during non-working hours, to prevent energy waste and achieve optimal use of it while continuing to maintain the efficiency of the educational process.

• Adopting the concept of the smart building in order to accommodate the use of all devices energy saving which means using internet-connected technology, as an integral part architecture engineering to monitor and control structural design elements to share information between users, systems and buildings.

2. Providing green spaces on campus

Designing open spaces inside the university campus in a way that provides the largest possible amount of green spaces and trees, which would reduce the rate of carbon dioxide emissions resulting from activities on the campus.

3. Transfer within the university

The transportation system plays an important role on the level of carbon emissions and pollution sources in the university. The transportation policy encourages reducing the number of cars in universities, and the use of campus buses and bicycles which works to create a healthy environment. Also, this policy encourages students, staff, and faculty to walk around, and to avoid using private cars. The use of environmentally friendly public transportation will reduce the carbon level on campus

- Providing bicycle parking in suitable spaces that allow students and workers to use them to move within the university campus effectively as an alternative to traditional means of transportation.
- Providing mass transportation (buses) for staff and faculty members to travel to and from the university campus instead of using private cars as a single means of transportation, which will reduce carbon dioxide emissions.
- Adopting the state's initiative to provide bicycles announced by the Ministry of Youth and Sports under the slogan "Your bicycle is Your Health" for students and workers with supported prices to expand the base for practicing sports and make sport a lifestyle

4. Waste Management (WS)
According to this indicator, a policy is adopted to recycle waste by separating it from the source into four types
• Organic waste and food residues.
• Plastic waste and plastic bags.
• Mineral waste and carbonated water cans.
• Paper waste

.This allows for the recycling and utilization of as much of that waste as possible instead of disposing of it in landfills, which will eventually lead to its burning and the consequent pollution of the environment and the increase in emissions of greenhouse gases

.Adopting a mechanism for healthy food and beverage dealings within university cities (providing healthy, balanced foods, a mechanism for packaging food and drinks, storing them, and a mechanism for maintaining a healthy atmosphere for dining places on campus)

.Adopting a mechanism to maintain the campus environment in a clean image and the quality of detergents, pesticides and chemicals used in that.

Adoption of a preservation mechanism

5. Water (WR)

Campus water use is an important indicator in the sustainability scale. The aim is to urge universities to reduce water use, increase water conservation programs, and protect the environment. Among these criteria: a water conservation program, a recycling program Water, Using Water-Saving Equipment, and Treating Wastewater Through:

• Water-saving appliances are used instead of traditional appliances. This indicates the extent to which water-saving devices are used (for example, using a sensor-controlled automatic hand washing faucet, and highly efficient bathroom appliances.

• Supplying water taps with water saving units.

• Adopting a mechanism for maintaining water pipes to prevent waste resulting from leaks.

• Adopting plans and mechanisms to maintain the university's internal supply networks and taps to prevent water wastage.

• Providing a wastewater treatment plant in the university to make it suitable for irrigation of green spaces and gardens located within the university campus