

The impact of the shift towards a green economy on sustainability policies: a case study of the experience of the United Arab Emirates

Dr. Omnia Mohamed Ahmed

Assistant Professor at Umm Al Quwain University

Abstract:

Environmental sustainability policies come as one of the most important current and future policies that are related to the issue of climate change and its negative effects on food security and quality of life. This requires research into new sources of renewable energy, developing economic management policies, and adopting green economy policies of green purchases, manufacturing, and production. In light of this, the study reviews One of the most important international experiences is the experience of the United Arab Emirates in environmental sustainability and the transition towards a green economy, including strategies, policies, work tools, and an attempt to benefit from the experience as an important developmental reference experiment, especially for Arab environments.

Key words: green economy- green procurement- sustainability policies- environmental policies- Climate change.

المخلص باللغة العربية:

تأتي سياسات الاستدامة البيئية كواحدة من أهم السياسات الحالية والمستقبلية التي ترتبط بقضية تغيير المناخ وتأثيراتها السلبية على الأمن الغذائي وجودة الحياة، وما يتطلبه البحث في مصادر جديدة للطاقة المتجددة وتطوير سياسات إدارة الاقتصاد، وتبني سياسات الاقتصاد الأخضر من مشتريات وتصنيع وإنتاج أخضر، وفي ضوء تستعرض الدراسة واحدة من أهم التجارب الدولية وهي تجربة دولة الإمارات العربية المتحدة في الاستدامة البيئية والتحول نحو الاقتصاد الأخضر بما فيها الاستراتيجيات والسياسات وأدوات العمل ومحاولة الاستفادة من التجربة كتحريه مرجعية تطويرية هامة لاسيما للبيئات العربية.

الكلمات المفتاحية: الاقتصاد الأخضر- المشتريات الخضراء- سياسات الاستدامة- السياسات البيئية- التغيير المناخي.

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The UAE is devoting the year 2023 to sustainability, declaring it the “Year of Sustainability,” under the slogan “Today for Tomorrow.” The Year of Sustainability in the country will include various initiatives, events and activities that highlight the UAE’s rich heritage in sustainable practices, since the era of the late founder Sheikh Zayed bin Sultan Al Nahyan, may God rest his soul, in addition to spreading awareness about environmental sustainability issues and encouraging community participation in achieving sustainability. Development and support of national strategies in this field.

In 2012, the UAE launched the UAE Green Development Strategy, which is a long-term national initiative to build a green economy in the country under the slogan “Green Economy for Sustainable Development,” through which it aims to make the UAE a global leader in this field and a center for exporting and re-exporting green products and technologies. In addition to maintaining a sustainable environment that supports long-term economic growth

The initiative includes a set of programs and policies in the fields of energy, agriculture, investment, and sustainable transportation, in addition to new environmental and urban policies aimed at raising the quality of life in the country.

The initiative includes six main tracks covering a wide range of legislation, policies, programs and projects:

The first track: Green energy, which is a set of programs and policies aimed at enhancing the production and use of renewable energy and related technologies, in addition to encouraging the use of clean fuels for energy production and working to develop

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standards and enhance energy efficiency in the government and private sectors.

The second track: includes government policies aimed at encouraging investments in the areas of the green economy, and facilitating the processes of production, import, export and re-export of green products and technologies, in addition to working to create job opportunities for citizens in these fields and equipping national cadres in this field.((Fogarassy 2017)

The third track: It comes under the title of the Green City, and includes a set of urban planning policies aimed at preserving the environment, raising the environmental efficiency of housing and buildings, and encouraging environmentally friendly means of transportation or what is called sustainable transportation, in addition to programs aimed at purifying the indoor air of cities in the Emirates to provide a healthy environment. For everyone.

The fourth track: Dealing with the effects of climate change, through policies and programs aimed at reducing carbon emissions from industrial and commercial facilities, in addition to encouraging organic agriculture through a set of incentives at the federal and local levels.

The fifth path: green living, which includes a set of policies and programs aimed at rationalizing the use of water, electricity and natural resources, in addition to projects for recycling waste resulting from commercial or individual uses. This path also includes environmental awareness and education initiatives for the public.

Track Six: Green Technology and Technology. This track, in its first phase, will focus on carbon capture and storage technologies, in addition to technologies for converting waste into energy.((Luomi, 2015)

The green economy is defined as an economy that aims to reduce environmental risks and achieve sustainable development without leading to a state of environmental degradation. It is closely related

to ecological economics, but has a stronger political focus. The UNEP Green Economy Report in 2011 argues: “For an economy to be green, it must not only be efficient but also fair. This justice means recognizing the dimensions of financial equality at the global and local levels, especially in ensuring a just transition to a low-carbon economy that is resource efficient and socially inclusive.

One of its features that distinguishes it from previous economic systems is its direct assessment of natural capital and ecosystem services, as having economic value (see Economics of Ecosystems and Biodiversity and Natural Capital Banking), in addition to its full-cost environmental accounting system through which costs are tracked. externality that reliably circulates to society across ecosystems.

Green labeling practices have emerged as relevant standards for ESD consumers. Many industries are beginning to adopt these standards as viable ways to enhance their greening practices in a globalized economy.(Luomi 2015; Willis & Kirby 2015)

Green economy transition policies have become an indispensable requirement and an important precondition for achieving sustainable development. Green economy advocates strongly promote good governance. To increase domestic investment and foreign projects, a stable and predictable macroeconomic environment is necessary. Likewise, such an environment must also be transparent and accountable. In the absence of a solid and strong governance structure, the concept of shifting towards a sustainable development path will have no significant meaning. In order to achieve a green economy, it is important that institutions and governance systems are competent to ensure the efficient implementation of strategies, directives, campaigns and programmes.

It means achieving sustainable growth and development without disturbing the environmental system.

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A green economy is an economy that aims to reduce environmental risks and achieve sustainable development without leading to a state of environmental degradation. It is closely related to ecological economics, but has a stronger political focus.

According to the United Nations Environment Programme, a green economy promotes the transition to a low-carbon economy, resource efficiency and social inclusion.

The United Nations Environment Program defines a “green economy” as one that focuses on human aspects and natural impacts

An economic system that can generate high-paying jobs

In 2011, this definition was further developed as the word “green” came to be used to refer to an economy that, in addition to being resource-rich and well-regulated, is impartial, ensuring an objective transition to a low-carbon, highly resource-efficient, and inclusive economy.

Ideas and studies on the green economy mark a fundamental shift towards more efficient, multi-resource, environmentally friendly, and resource-saving technologies that can mitigate emissions and weaken the side effects of climate change, while confronting the problems of resource consumption and serious environmental devastation. (Markandya & Tamborra 2005)

Transitioning to a green economy requires a new mindset and innovative aspiration to do business. It also requires new capabilities and a skill set of workers and professionals who can work efficiently in more than one sector, and who are able to work as effective elements in multidisciplinary teams. To achieve this goal, vocational training packages must be developed with a focus on greening sectors (i.e. making them environmentally friendly). At the same time, the educational system must also be evaluated to suit the environmental and social considerations of different branches.

The link between the green economy and green procurement

Green purchasing means purchasing products and services that cause minimal negative environmental impacts. It integrates concerns about human health and the environment in the search for high quality products and services at competitive prices.

Green procurement goals:

Stimulating the local supply chain, adopting more sustainable practices, expanding the use of sustainable materials, and creating a competitive environment. (Pearce & Barbier 2000)

Reducing environmental footprint.

Enhancing the emirate's reputation as a sustainable city in the use of its resources.

Increase financial efficiency in the long term

The importance of shifting towards a green economy and purchases:

Reducing environmental impact

One of the most important benefits of green purchasing is reducing environmental impact. By purchasing environmentally friendly products and services, businesses can help reduce their carbon emissions and improve their overall sustainability. This can save them money and energy in the long run.

Improving the level of public health

Green purchases also have a positive impact on public health. Buying responsibly sourced products can reduce the amount of toxins that end up in the environment and in people's bodies. This can improve public safety as well as public health, both critical priorities for many governments around the world.

Reduce cost

Another important benefit of green purchases is that they can save money on costs and bills down the line. By using environmentally friendly products and services, businesses can avoid costly repairs

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and replacements later. This can save them millions of dollars over time and make them more financially secure in the long run.

Strategy for moving towards a green economy:

Implementing the strategic directions of the Dubai government to support the emirate's environmentally friendly economy.

Rationalizing government spending in the long term by supporting green government purchases, which will have an impact on the emirate's environment and the health of its residents in the future.

Providing a green government procurement policy.

Government procurement employees are responsible for adhering to the sustainable green purchasing process.

The green government procurement policy is characterized by development in terms of green transformation and environmental protection policy.

The volume and diversity of public procurement carried out by the government can be a very powerful tool in the transition to a green economy.

Green government procurement practices may be used to encourage the private sector to expand dealing with green products, which enhances the market for green goods and services. (Pitelis 2011)

Key performance indicators for the shift towards green procurement and economy:

- Compliance with the Code of Conduct
- Compliance with the United Nations Global Conduct
- Share of suppliers who have been audited according to corporate social responsibility standards
- Compliance with safety and security requirements
- Work-life balance, working hours

- Individual development, learning hours
- Community participation, volunteer hours
- Share of diverse suppliers in the supply base
- Share of suppliers who filled out the Self-Assessment Questionnaire (SAQ)
- Diversity, Equity and Inclusion (DEI) Survey Result

Emirates experience:

The United Arab Emirates is making great efforts to preserve the environment and gradually shift towards a green economy in various fields and reduce dependence on traditional energy sources. It has launched the “Emirates Green Development Strategy”, through which it aims to be one of the world’s leading countries in the fields of renewable energy. Specifically, a center for exporting green products and technologies, as well as maintaining a healthy environment that supports long-term economic growth, based on a group of projects launched to achieve sustainable development goals in the Emirates. In this article, we learn about the features of the green economy in the Emirates and the steps taken by the government to achieve its strategy in the foreseeable and long term. ((Pearce & Barbier 2000)

Features of the green economy in the Emirates and its most prominent pillars:

An image of the green economy:

The UAE plan aims to follow innovative methods to transform the country as a whole into a smart and sustainable country

The United Arab Emirates seeks to implement the concept of the green economy in all its parts. For example, the Dubai Clean Energy Strategy 2050 was launched, which aims to make Dubai a global center for clean energy and the green economy, and other projects and initiatives that ensure building a sustainable future for its present and future generations, as it adopted the green economy methodology. As one of the sustainable development paths through

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the “Emirates Green Development Strategy” that helps achieve the UAE Vision 2021, the initiative includes a set of programs and policies in the fields of energy, agriculture, investment, and sustainable transportation, in addition to new environmental and urban policies aimed at raising the quality of life in the country. (Klufallah et al. 2016)

The main pillars included in the strategy are the following:

The most prominent green economy projects in the UAE

Reducing the burning of oil and gas

Fires emit a huge amount of toxic gases that rise into the atmosphere every year. The United Arab Emirates has succeeded in limiting the burning of natural gas resulting from the oil and gas industry in the oil fields in the Emirates, and its policy is shifting from minimal burning to relying on... Fully focused on alternative energy sources, the Emirati capital, Abu Dhabi, has also hosted the annual flaring management and reduction summit since 2012, in order to exchange experiences on reducing gas flaring. It should be noted that all oil and petroleum companies are moving towards eliminating routine flaring, as ADNOC was able to reduce gas flaring by (76.4%) in 2013, and for its part, the External Exploration and Production Company (E&P) was able to reach a zero flaring rate. Actually in the fields of Zakum for the first time. (National Agenda 2019).

Rationalizing energy consumption in industry

Rationalizing energy consumption in the industrial field is considered a priority for the UAE government in its endeavor to build a sustainable green economy, and one of the most important steps achieved in this regard is the announcement by Abu Dhabi Ports and Khalifa Industrial City “KIZAD” of the start of construction and development work for the National Foodstuff Company on an area of 752 thousand square meters as a production plant in Kizad, and the United Arab Emirates has thus built the first factory in the world that operates in a fully automated

manner and is managed with the concept of maximum energy saving. In contrast, Emirates Global Aluminum Company has implemented co-generation of electricity and prepared the combined cycle in private power generation plants, To achieve 46-48% of thermal efficiency. It is worth noting that the intensity of greenhouse gases in industrial production in Dubai decreased by 12% over five years, which indicates the effectiveness of the practical steps taken by the state.(until 2017)

Reliance on clean fuel

Natural gas constitutes an alternative, renewable and clean source of fuel compared to gasoline, as it emits fewer emissions, and the cost of operating vehicles is about 30% lower. ADNOC's subsidiaries for fuel distribution and gas processing enjoy a pioneering role in expanding the use of compressed natural gas for vehicles, by investing in Infrastructure, to ensure the availability of sufficient fuel stations to meet the additional demand for such vehicles. The most important types of modern fuel include: (until 2021)

Green diesel

The UAE has become a pioneer in the Middle East in terms of using clean fuel, as in 2014 it obligated all commercial vehicles that operate on diesel that contains 500 parts per million of sulfur to use "green diesel," which contains only 10 parts per million, which is close to European standards reach 5 parts per million of sulfur, and the benefit that this will achieve is that the lower sulfur level will lead to a noticeable reduction in particulates and pollutants, and will contribute to creating a clean, healthy environment.

Green service gas stations

The first "green service gas station" was opened in the Emirates Hills neighborhood in the Emirate of Dubai. This type of station applies the latest technologies and specifications, the most important of which are devices to contain gasoline exhausts issued by the pump and a waste insulation system, in addition to colored

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waste bins and furniture made from recycled materials, to... In addition to a central unloading system that supports energy conservation and reduces waste and noise. Green stations generate half of their energy needs through renewable sources, as they use solar-powered poles, as well as lighting and LED lamps. These stations also use water taps with a sensor in the bathrooms, and they also reuse car wash water, while saving... A waterless car washing system, using a multi-use environmentally friendly liquid, in addition to increasing reliance on green fuel in many manufacturing industries in the Emirates.(Jayaraman et al. 2015)

Encouraging the rationalization of energy consumption

Cooperation between individuals and companies and raising their awareness of the need to consume energy efficiently is essential to achieving sustainability in the Emirates. Since 2013 in Dubai, the Dubai Electricity and Water Authority (DEWA) has included a statement of the carbon dioxide equivalent emissions of the customer's electricity consumption attached to the electricity bill. With the aim of raising awareness of the impact of this on climate change, and informing them of the UAE's green economy plans, it is worth noting that according to the Living Planet Report 2006 issued by the World-Wide Fund for Nature, the UAE recorded the highest environmental footprint in the world. (Manghnani & Bajaj 2014)

Launching several sustainable city renewable energy means

Dubai Silicon Oasis is planning a number of important initiatives within the framework of the Dubai Clean Energy Strategy 2050

The efforts of the UAE were not limited to providing awareness campaigns that revolve around the green economy of the Emirates, but rather it sought to inaugurate and launch many sustainable cities in Dubai that use modern methods to preserve natural resources and avoid depletion of water and electricity, as all sustainable cities are characterized by following different strategies that in turn help. In preserving natural resources and achieving a

green economy in Dubai and the rest of the Emirates cities, such as designing green homes and sustainable environmental homes using environmentally friendly building materials to ensure optimal energy consumption efficiency, the most prominent of these cities are:

Dubai Sustainable City

Desert Flower City

Dubai South City

Dubai Silicon Oasis

Jumeirah Golf Estate

The UAE has laid the foundations for many major projects in the field of renewable energy in the Emirates, the most important of which is “Shams 1”, which is considered the largest concentrated solar power station in the world, as well as the waste energy production station in Abu Dhabi, and the solar park in Dubai. It also launched the Masdar City project in Abu Dhabi. Which aims to provide a permanent business model for an environmentally friendly city, making it the first clean energy engine in the region.(Nader 2009)

District cooling systems

The UAE is considered a pioneering country in adopting district cooling systems, which are considered a successful alternative to traditional air conditioners, as these systems consume 50% less energy than traditional systems.

Providing sustainable means of transportation

Sustainable transportation systems are defined as means that work to reduce individuals’ use of their personal cars and rely more on public transportation in a way that reduces fuel consumption. Among the most prominent means of transportation built by the UAE are:

Abu Dhabi

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Metro

Light Rail

Dubai

Dubai Metro

Tram

The most prominent steps taken by the United Arab Emirates towards achieving the concept of a green economy, as many green economy projects have emerged in the Emirates, such as green fuel stations and alternative energy projects, in addition to the adoption of policies that consolidate the concept of a sustainable environment.(Green & McCann (2011).

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