Arab Public Opinion and the Environment

AFED 2017 Survey in 22 Countries

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A public opinion survey carried out by the Arab Forum for Environment and Development (AFED) in 22 Arab countries revealed that a vast majority, exceeding 60 percent, believes that the environment has deteriorated in their countries over the last ten years. An even bigger majority of 95 percent thinks that their country is not doing enough to tackle environmental challenges. The questionnaire, circulated between March and June 2017 via internet, in cooperation with Arab media outlets, attracted 20,460 responses from across the Arab region.

The survey was conducted on self-completion basis, and filled voluntarily by those who chose to respond to public invitations announced online and through print media. The sample included responses from all the 22 countries which are members in the League of Arab States, according to the following demographic distribution: Age- 30-49: 46%, 20-29: 34%, above 50: 13%, under 20: 7%. Gender- male: 66%, female: 34%. Family income compared to standard of living in country of residence- average: 69%, above average: 16%, below average: 15%. Education- university: 87%, secondary: 6%, vocational: 5%, intermediate and elementary: 2%.

Respondents who thought that the environmental situation has worsened comprised 60 percent, reflecting findings of a similar AFED survey in 2006. In contrast, 20 percent said the situation has improved, down from 30 percent in 2006, and 20 percent said it has not changed. Overall results reflect a negative outlook, with the highest levels of public dissatisfaction recorded in Syria (96%), Lebanon (91%), Yemen (90%), Tunisia and Libya (78%), Iraq (74%) and Egypt (66%). It is obvious that war, conflict and political instability reflected negatively on the environmental situation in those countries. The only country where a majority of just over 50 percent thought that the environment improved was the United Arab Emirates (UAE).

The most important environmental challenges according to the survey are solid waste, followed by weak environmental awareness, deterioration of water resources, pollution and climate change. This is in line with the results from ten years ago, except for air pollution, which was ranked the biggest challenge in 2006. Differences were observed in this regard among countries, where priorities chosen reflected specific problems at the national level. Food contamination due to improper use of pesticides and fertilizers was chosen as the top environmental threat in Egypt, reflecting increased concerns about food safety. The majority of respondents in Kuwait considered marine and coastal pollution the prime problem, which took second place in Lebanon. This can be explained by the repeated loss of thousands of tons of fish in Kuwait over the past decade due to the discharge of waste in the sea, and the worsening coastal pollution in Lebanon caused by untreated sewage.

The top causes for environmental deterioration chosen by those surveyed were bad environment management, non-compliance with environmental legislation, weak environment institutions and inadequate government spending on the environment – results that are all in line with 2006 findings. Results of Saudi Arabia and UAE highlighted weak environmental awareness as the main cause for environmental decline.

When asked about what personal action respondents were willing to take to protect the environment, 73 percent said they were ready to participate in environmental awareness campaigns and 65 percent were prepared to fully comply with environmental legislation. Regarding fiscal measures, 45 percent accept government taxes to protect the environment, while only 20 percent are willing to pay donations to an environmental protection fund.

Changes over ten years were evident on issues related to climate change, reflecting a higher level of awareness. The adoption of the Paris Agreement should have stimulated further recognition of the serious impacts of climate change. 93 percent say that the climate is changing due to human activities and 90 percent of the respondents believe that it poses a serious challenge to their countries. This represents a 6 percent increase over ten years. A regional average of 75 percent thought that the government was not doing enough to deal with climate change, with the highest levels of condemnation noted in Libya, Lebanon, Yemen, Syria and Iraq. A majority of over 50 percent in Oman, the UAE and Morocco indicated satisfaction with government action to tackle climate change. This can be attributed to the specific inclusion of climate change in the cabinet portfolios in those countries, culminated, for example, in the Ministry of Climate Change and Environment in the UAE.

The AFED survey shows that the public has become more familiar with the terminology and the concept of sustainable development goals. 83 percent of those surveyed say they know what the aims of sustainable development are, 98 percent think that changing consumption patterns can impact the environment, and 95 percent believe that environmental protection helps economic growth.

Results evidently show more understanding of environmental issues among the public, including their interrelation with economic and social factors. They also reveal that people are worried about the deterioration of the environment and depletion of resources, and that they are generally dissatisfied with the level of response of governments. On the other hand, the survey shows an overwhelming readiness from the public to support positive change, by encouraging stricter laws to protect the environment and preserve natural resources, alongside engaging in personal action in this regard.

The AFED report on the state of Arab environment in 10 years found that the situation deteriorated, and called for immediate remedial action. As the people agree with the expert prognosis and are ready to endorse change, it is the right time for governments to enact appropriate policies and implement action plans to enhance the environment, with the engagement and support of the public.

FIGURE 1 IN YOUR VIEW, DURING THE PAST 10 YEARS, THE ENVIRONMENTAL SITUATION IN YOUR COUNTRY

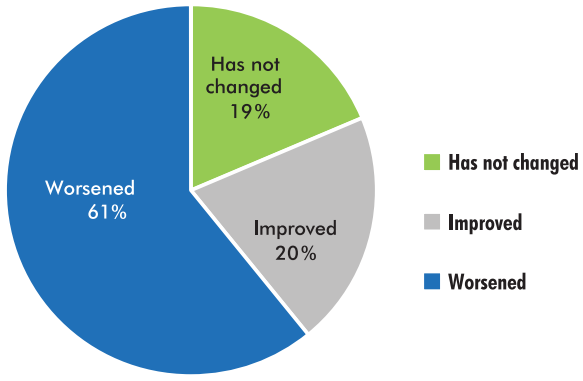

FIGURE 2 CLIMATE IS CHANGING DUE TO HUMAN ACTIVITY

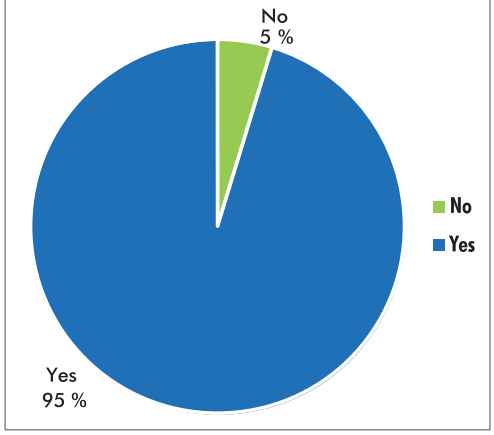

FIGURE 3 MY GOVERNMENT IS PUTTING GOOD EFFORTS TO DEAL WITH CLIMATE CHANGE

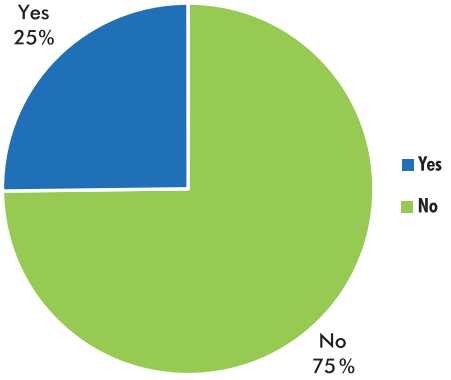

FIGURE 4 CLIMATE CHANGE IS A SERIOUS PROBLEM FOR YOUR COUNTRY

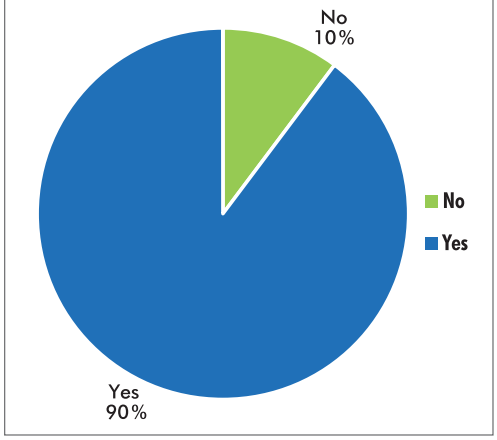

FIGURE 5 **WHICH OF THE FOLLOWING ACTIVITIES ARE YOU WILLING TO DO?**

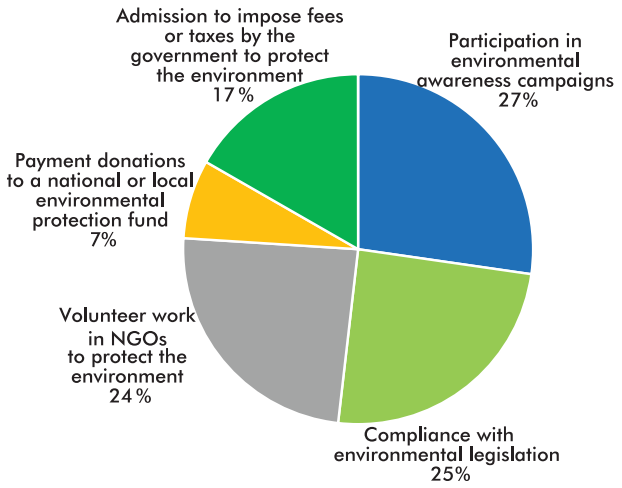

FIGURE 6 **DO YOU THINK YOUR COUNTRY SHOULD DO MORE OR LESS THAN IT IS DOING NOW TO PROTECT THE ENVIRONMENT?**

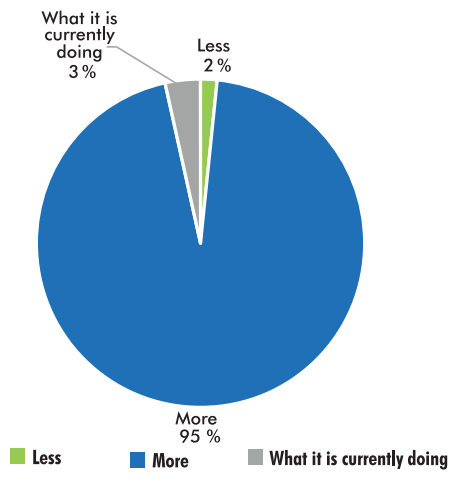

FIGURE 7 **WHAT ARE THE 3 MOST IMPORTANT ENVIRONMENTAL PROBLEMS / CHALLENGES IN YOUR COUNTRY?**

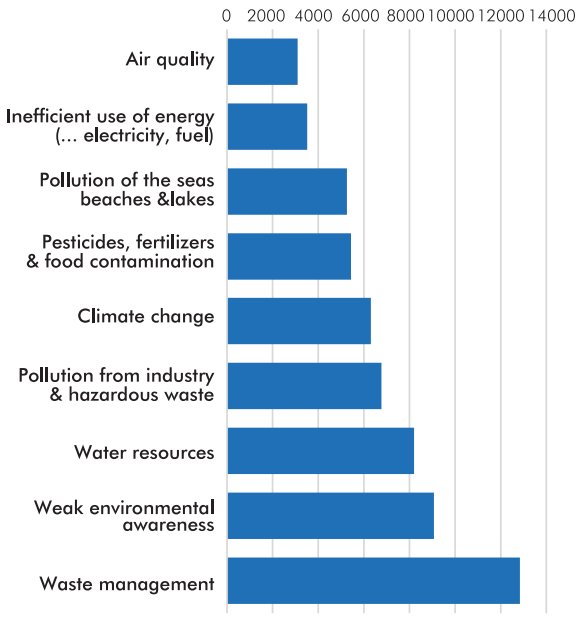

FIGURE 8 **WHAT ARE THE MAIN 3 REASONS FOR THE DETERIORATION OF THE ENVIRONMENT IN YOUR COUNTRY? (CHOOSE 3 ONLY)**

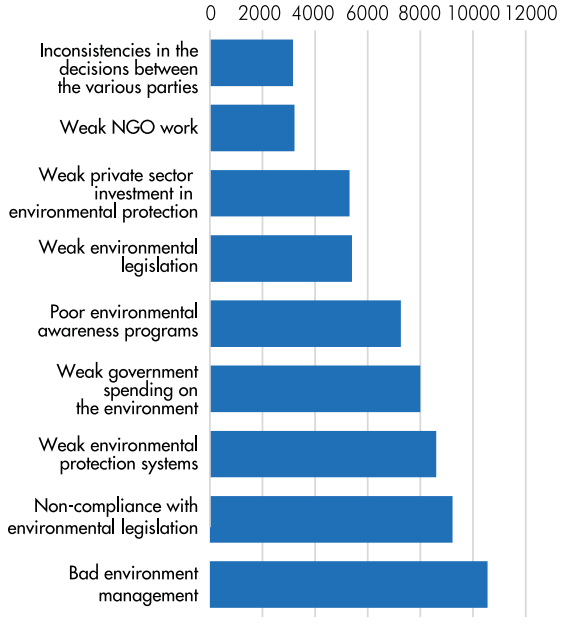

FIGURE 9 DO YOU KNOW WHAT ARE THE SUSTAINABLE DEVELOPMENT GOALS (SDGS)?

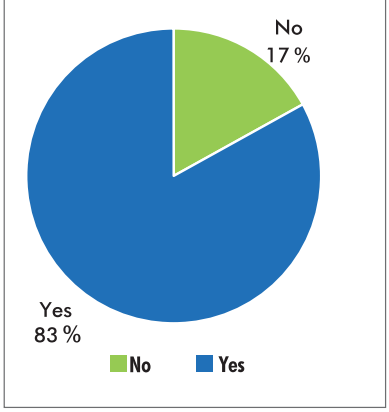

FIGURE 10 DOES SOUND ENVIRONMENTAL MANAGEMENT HELP SUSTAINABLE ECONOMIC GROWTH?

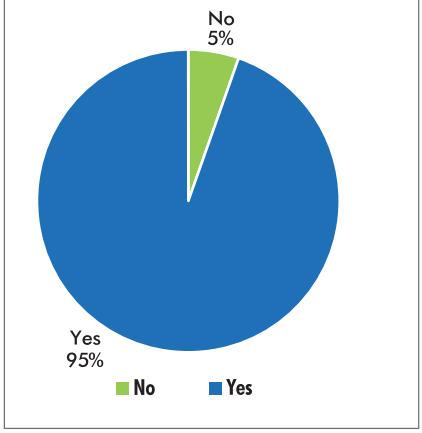

FIGURE 11 DO OUR CONSUMPTION PATTERNS AFFECT THE ENVIRONMENT?

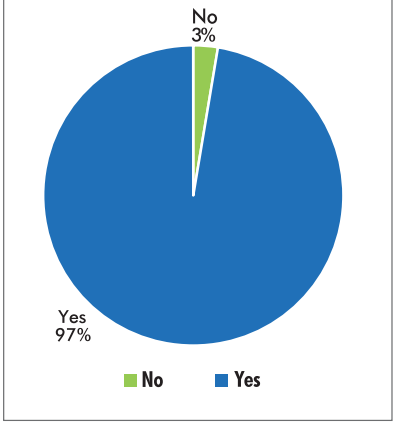

TABLE 1 MOST IMPORTANT ENVIRONMENTAL PROBLEMS / CHALLENGES (SELECTED COUNTRIES)

	Air quality	Climate change	Inefficient use of energy (electricity, fuel ...)	Pesticides, fertilizers and food contamination	Pollution from industry and hazardous waste	Pollution of the seas and beaches and lakes	Waste management	Water resources	Weak environmental awareness
Algeria	3.78%	12.13%	6.37%	7.11%	11.73%	6.43%	21.49%	10.94%	20.02%
Egypt	5.27%	8.68%	4.65%	22.64%	12.56%	3.88%	14.73%	13.64%	13.95%
Jordan	6.45%	14.70%	7.89%	7.89%	7.53%	0.36%	18.28%	20.07%	16.85%
Kuwait	11.11%	11.11%	5.56%	9.26%	7.41%	18.52%	12.96%	12.96%	11.11%
Lebanon	8.98%	4.49%	6.22%	6.22%	9.67%	18.39%	29.27%	11.57%	5.18%
Morocco	2.02%	17.68%	1.18%	8.92%	8.75%	7.07%	18.52%	18.69%	17.17%
United Arab Emirates	8.33%	10.71%	9.52%	7.14%	14.29%	13.10%	5.95%	23.81%	7.14%
Tunisia	3.70%	8.83%	3.70%	5.13%	17.38%	13.96%	19.66%	17.09%	10.54%
Yemen	0.81%	9.76%	2.44%	22.76%	4.88%	5.69%	16.26%	17.07%	20.33%
Saudi Arabia	12.96%	9.26%	9.26%	12.96%	9.26%	1.85%	16.67%	7.41%	20.37%
Iraq	4.94%	10.19%	9.88%	6.79%	13.89%	0.93%	24.38%	9.26%	19.75%
Bahrain	3.70%	8.15%	5.93%	2.96%	18.52%	14.81%	15.56%	16.30%	14.07%

TABLE 2 **MAIN SOURCES FOR THE DETERIORATION OF THE ENVIRONMENT (BY COUNTRY)**

	Bad Environment Management	Inconsistencies in the decisions between the various parties	Non-compliance with environmental legislation	Poor environmental awareness programs	Weak environmental legislation	Weak Environmental Protection Systems	Weak government spending on the environment	Weak NGO work	Weak private sector investment in environmental protection
Algeria	15.68%	3.95%	15.00%	13.93%	6.32%	14.33%	9.59%	8.80%	12.41%
Bahrain	17.78%	8.89%	13.33%	17.04%	8.15%	9.63%	12.59%	2.22%	10.37%
Djibouti	0.00%	0.00%	0.00%	33.33%	0.00%	33.33%	0.00%	0.00%	33.33%
Egypt	17.83%	4.81%	15.66%	13.64%	8.84%	16.28%	12.09%	4.50%	6.36%
Iraq	24.69%	6.79%	10.80%	11.42%	11.42%	14.81%	12.04%	1.23%	6.79%
Jordan	16.85%	5.02%	19.71%	8.60%	11.11%	11.47%	15.05%	3.58%	8.60%
Kuwait	7.41%	5.56%	22.22%	12.96%	9.26%	12.96%	14.81%	3.70%	11.11%
Lebanon	21.59%	7.25%	16.32%	6.65%	13.56%	11.49%	19.00%	1.12%	3.02%
Libya	16.05%	0.00%	9.88%	14.81%	7.41%	17.28%	20.99%	3.70%	9.88%
Mauritania	19.05%	7.14%	9.52%	14.29%	4.76%	19.05%	16.67%	0.00%	9.52%
Morocco	15.15%	4.88%	16.50%	13.97%	7.91%	15.99%	10.27%	6.06%	9.26%
Oman	0.00%	16.67%	33.33%	16.67%	0.00%	0.00%	16.67%	0.00%	16.67%
Other	25.00%	0.00%	8.33%	33.33%	16.67%	8.33%	8.33%	0.00%	0.00%
Palestine	14.67%	9.33%	10.67%	10.67%	9.33%	17.33%	12.00%	4.00%	12.00%
Qatar	22.22%	33.33%	0.00%	11.11%	0.00%	11.11%	0.00%	11.11%	11.11%
Saudi Arabia	12.96%	5.56%	11.11%	20.37%	7.41%	14.81%	11.11%	9.26%	7.41%
Somalia	0.00%	0.00%	16.67%	0.00%	16.67%	33.33%	33.33%	0.00%	0.00%
Sudan	17.71%	2.08%	17.71%	14.58%	5.21%	15.63%	17.71%	3.13%	6.25%
Syria	14.97%	4.08%	12.93%	11.56%	8.16%	16.33%	16.33%	5.44%	10.20%
Tunisia	17.09%	3.99%	13.11%	9.69%	7.12%	16.24%	13.11%	7.41%	12.25%
United Arab Emirates	4.76%	11.90%	13.10%	15.48%	10.71%	14.29%	8.33%	10.71%	10.71%
Yemen	15.45%	0.81%	17.89%	10.57%	7.32%	12.20%	20.33%	8.13%	7.32%

TABLE 3 **MY GOVERNMENT IS PUTTING GOOD EFFORTS TO DEAL WITH CLIMATE CHANGE (BY COUNTRY)**

	No	Yes
Algeria	64.81%	35.19%
Bahrain	71.11%	28.89%
Djibouti	0.00%	100.00%
Egypt	80.47%	19.53%
Iraq	87.04%	12.96%
Jordan	76.34%	23.66%
Kuwait	61.11%	38.89%
Lebanon	98.96%	1.04%
Libya	100.00%	0.00%
Mauritania	78.57%	21.43%
Morocco	40.91%	59.09%
Oman	0.00%	100.00%
Other	75.00%	25.00%
Palestine	72.00%	28.00%
Qatar	66.67%	33.33%
Saudi Arabia	61.11%	38.89%
Somalia	50.00%	50.00%
Sudan	78.13%	21.88%
Syria	87.76%	12.24%
Tunisia	85.47%	14.53%
United Arab Emirates	14.29%	85.71%
Yemen	90.24%	9.76%
Grand Total	**74.81%**	**25.19%**

TABLE 4 **DURING THE PAST TEN YEARS, THE ENVIRONMENTAL SITUATION (BY COUNTRY)**

	Has not changed	Improved	Worsened
Algeria	26.57%	32.32%	41.12%
Bahrain	24.44%	28.89%	46.67%
Djibouti	0.00%	100.00%	0.00%
Egypt	19.07%	14.88%	66.05%
Iraq	21.30%	4.63%	74.07%
Jordan	23.66%	23.66%	52.69%
Kuwait	44.44%	27.78%	27.78%
Lebanon	7.77%	1.04%	91.19%
Libya	18.52%	3.70%	77.78%
Mauritania	35.71%	28.57%	35.71%
Morocco	14.65%	44.44%	40.91%
Oman	50.00%	50.00%	0.00%
Other	0.00%	25.00%	75.00%
Palestine	12.00%	28.00%	60.00%
Qatar	33.33%	33.33%	33.33%
Saudi Arabia	11.11%	44.44%	44.44%
Somalia	50.00%	0.00%	50.00%
Sudan	18.75%	6.25%	75.00%
Syria	4.08%	0.00%	95.92%
Tunisia	11.97%	10.26%	77.78%
United Arab Emirates	39.29%	53.57%	7.14%
Yemen	9.76%	0.00%	90.24%
Grand Total	**18.64%**	**20.48%**	**60.88%**

ENVIRONMENTAL CONSERVATION IN THE UAE: AN AUTHENTIC CULTURAL HERITAGE AND EXPERIENCE

Thani bin Ahmed Al Zeyoudi

The United Arab Emirates (UAE) has prioritized the conservation of the environment and natural resources, both being integral to its national heritage, almost since the establishment of the federation in 1971. The founding father of the UAE, late Sheikh Zayed bin Sultan Al Nahyan, considered the environment and sustainable development to be cornerstones of the nation's progress.

In line with the rapid economic and social developments over the past four decades, the UAE has restructured and refined its environmental policies and plans in a strategic and well thought out manner. Sustainability is an essential component of all development plans, as reinforced by the UAE Vision 2021. Sustainability represents the ultimate goal and emphasizes the fundamental value of protecting the environment towards achieving the objectives of this vision.

Despite our efforts and achievements, increasing pressures and global challenges such as climate change, population growth, economic growth, change in land use and lifestyles have led us to seek an alternative approach that focuses on mitigating these pressures and limiting their impact.

As part of this approach, the adoption of renewable and clean energy in 2006 within the energy diversification policy was a major turning point. The UAE followed up on this revolutionary step with the early adoption of several game-changing environmental policies towards achieving a green economy, green architecture, sustainable transport and enhanced resource efficiency. The adoption of such policies is part of an ambitious national vision and a comprehensive government approach that prioritizes innovative technologies, solutions and best practices in a bid to make the UAE one of the most innovative countries in the world by 2021.

Clean Energy

The impact of these policies has not yet been fully demonstrated. However, it is safe to say that they have become an integral part of the UAE's environmental landscape and we have begun to reap the rewards of these policies. In 2013, the UAE President His Highness Sheikh Khalifa bin Zayed Al Nahyan, launched the Shams 1 Solar Power Station Project, the first concentrated solar energy project in the UAE that aims to generate 7 Percent of Abu Dhabi's renewable energy requirements by 2020. Furthermore, the first phase of the Sheikh Mohammed Bin Rashid Solar Energy Complex in Dubai was launched in October 2013 and the second phase in March 2017, which aim to contribute 7 Percent of Dubai's energy requirements by 2020, 25 Percent by 2025 and 75 Percent by 2050.

We have also established four nuclear power plants in Abu Dhabi with a capacity of 5.6 GW, which represents about 26 Percent of the energy mix in the emirate of Abu Dhabi. These plants will start producing energy in stages for peaceful purposes between 2017 and 2020.

Following these successes, we aim to continue developing our plans and nurturing our ambitions by increasing the share of clean energy in the national energy mix from 24 Percent to 27 Percent by 2021 and 50 Percent by 2050 as per the UAE Energy Strategy 2050, announced in January 2017.

Green Economy

Since its launch in 2012, we have taken important steps to put the UAE's Green Development Strategy into action. In 2015, the Cabinet adopted the Implementation Mechanism of the National Strategy and Green Agenda (2015-2030) and launched national action programs that we have begun to implement towards transforming the UAE's national economy into a low-carbon green economy.

The green agenda is based on five key objectives, spread across 12 national programs and 31 sub-programs, designed to cover all key aspects of the UAE's transition to a green economy. It includes technology, human capital, regulatory and financial environment, international trade, intellectual property, consumer awareness and integrated national planning.

In recognition of its pioneering role in this field and the dissemination of green economy concepts on a global scale, the UAE announced at the end of 2016 the

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establishment of the World Green Economy Organization, with the support of the Government of Dubai and the United Nations Development Programme (UNDP). Furthermore, the government has announced the establishment of the Dubai Green Fund with a capital of AED 100 billion.

Climate Change

The policies I have referred to thus far are the key pillars of our efforts to mitigate climate change and achieve sustainable development. We are confident that the UAE National Climate Change Plan that we are currently in the process of finalizing will focus on broadening interest in green projects and practices in general and lead to innovative solutions to reduce emissions. It also aims to maintain economic growth and leverage clean energy applications in large energy-intensive industries such as power generation, desalination, carbon capture and storage technologies.

In 2015, we inaugurated our first renewable water desalination plant, and stepped-up our sustainability efforts by launching the first commercial carbon capture and storage project in 2016.

Sustainability of environmental systems and resources

Furthermore, the United Arab Emirates has strengthened its efforts to protect its environmental systems and resources and to develop environmental procedures and practices in various related areas, some of which are briefly explained below:

- Enhance air quality by developing more stringent controls and standards for activities affecting the quality of air, building a national air pollution monitoring network of 41 stations, developing monitoring tools that utilize modern technologies such as satellites and remotely monitor all activities that have a high impact on air quality. The UAE has also recently inaugurated the first central control

room that leverages networking and TV monitoring for facilities operating in the country's quarry fields.

- Strengthen national efforts to protect and develop biodiversity by expanding habitat rehabilitation and establishing more protected areas. Our stringent policy in this domain has led to an increase in the number of declared protected areas - from 19 in 2010 to 43 in 2016 - exceeding 14% of the country's total land bank that comes within the purview of protected areas. We have also enhanced our programs for the protection of endangered species and their proliferation and distribution across their natural habitats within and outside the UAE. We have achieved remarkable successes in this area, launching more than 1,750 falcons between 1995 and 2015, and over 200,000 Houbara Bustard birds as well as hundreds of Arabian oryx.

- Sustain the marine and coastal environment and their living resources, including protecting environmentally sensitive areas and enhancing their ability to adapt to the impacts of climate change, developing our capacity to monitor pollution incidents and changes in the marine environment, establishing more marine protected areas and synthetic armaments to provide suitable habitats for the protection and sustainability of marine life. We are truly privileged to maintain our first place ranking since 2012 in the Marine Protected Areas (EPI) Standard. We have successfully rehabilitated several coral reef areas and increased the area of mangrove forests under cultivation from nearly 8,800 hectares in 1990 to more than 13,600 hectares in 2013.

- Develop the fish farming industry and promote private sector investment to increase its contribution and bridge the gap between supply and demand. The Sheikh Khalifa Bin Zayed Al Nahyan Marine Research Center, launched in Umm Al Quwain in 2014, is an important achievement in the field of aquaculture and in the development of marine environment research. Seamlessly integrating modern laboratories and technologies on the one hand and innovative practices on the other, it boasts our production capacity to 10 million economic fish per year.

- Implement integrated waste management by focusing on reducing generated waste, expanding interest in the recycling industry - both quantitative and qualitative - including waste-to-energy conversion, improving waste collection and safe disposal of waste. The ongoing integrated waste management projects in Ajman, Umm Al Quwain, Ras Al Khaimah and Fujairah will boost our efforts to increase the proportion of treated waste to 75% by 2021 to meet the objectives of the UAE Vision 2021.

Future Plans

Today we are proud to highlight that our plans in the environment domain are founded on a rich heritage and experience spanning more than four decades - making us optimistic about the future and confident in our capacities to achieve our ultimate goals as a nation. These plans derive from our comprehensive national vision and ambitious objectives, including the UAE's Green Development Strategy 2014, the National Agenda of the UAE Vision 2021, the UAE Energy Strategy 2050, and the National Climate Change Plan that is already underway and factors in our commitments to international conventions as well as the United Nations Sustainable Development Goals 2015-2030.

To implement these plans, in addition to our extensive experience and national capabilities in the field of environmental protection and development, we rely on the favorable conditions provided by the national strategies in the field of education, innovation, foresight and smart government. We also rely on the concerted efforts of all national institutions working in the field of environment, the development of partnership initiatives with the private sector, the academic community and civil society organizations, as well as the awareness of the members of the community and their environmental consciousness.

The UAE has already paved the way for collective environmental consciousness by conceptualizing and implementing sustainable environment policies and establishing national councils and committees, including the UAE Council for Climate Change and Environment, the Environmental Business Council and the UAE Sustainability Research Committee. We look forward to a day in the near future when we achieve our zero-carbon goal and as a nation have a minimal environmental impact on our planet.