

# SUMMARY OF THE SECOND UNITED ARAB EMIRATES NATIONAL REPORT TO THE UNCCD

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## 2 INTRODUCTION

The United Arab Emirates is peculiar than other countries on matters related to strategies and plans dealing with combating desertification. The term “**Combating Desertification**” in the UNCCD is opposed by the term “**Greening The Desert**”. The latter is the prevailing applied practice in United Arab Emirates. It concerns with converting the natural desert environment into productive agricultural land, conserving its biodiversity and increasing the economic outcome of it. “Greening The Desert” approach has been adopted and implemented by U.A.E. This report prepared according to the document no ICCD/CRIC(1)INF5 and to the communication with UNCCD secretariat, it wills highlights the UAE effort on sustainable development and combating desertification .

**Desertification** is defined as the degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities.

**"Combating desertification"** includes activities which are part of the integrated development of land in arid, semi-arid and dry sub-humid areas for sustainable development which are aimed at: (i) prevention and/or reduction of land degradation; (ii) rehabilitation of partly degraded land; and (iii) reclamation of desertified land.

Many countries of the world are suffering from desertification. It is caused primarily by human activities and climatic variations. The U.A.E. is located within the arid west continent desert belt, its environment (as that of many of the arid and semi arid environments in the world) is highly sensitive. The sensitivity is attributed to the delicate balance between various natural systems and components such as climate, water resources, soil, vegetation, and biodiversity. Accordingly its exposure to the impacts of aridity and desertification is considered as a reoccurring phenomenon.

## 3 THE NATIONAL PLANS AND STRATEGIES WITHIN THE FRAMEWORK OF SUSTAINABLE DEVELOPMENT

### 3.1 Desert retreat in front of the increasing agricultural land

The UAE first five-year development plan (1981-1985), included an important objective to increase the agricultural lands and forests. The then suitable land for agriculture was approximately 200 thousand hectares, which is equivalent to 2.4 % of the total area of the country. The development plan aimed at spending on development of agricultural sector 3673 million dirham. Out of these, 1382 millions dirham were allocated from the Federal Government, 752 million dirham of this to be spent on making water available and to establish modern irrigation networks. These investments are true combating desertification activities. The cultivated area increased from 32.5 to 43.6 thousand hectares during the period 1975-1985. In 1985 the cultivated land reached 68.3 thousand hectares (40,000 of it are forests). The cultivated land in the following years increased by an annual rate of 9.4 %. It reached 161.7 thousand hectares in 1990 (100,000 of it are forests), and 266,000 in 1995 (200,000 of it are forests), and 546,500 in the year 2000 (300,000 of it are forests). The rate of the annual increase in the cultivated land reached 14.9 % during the period 1985-2000. By the year 2000 the cultivated land reached 6.5 % of the total area of the country.

The increase in use of underground water in the UAE is a determining and the most important factor in deteriorating water quality, this is because the lack of cutting forests, or the increase of urban areas upon cultivated land. On the contrary, all development projects tend to increase and reform the cultivated lands. The Government realized the importance of, and monitored the shortage and the imbalance in the underground water. Financial resources were allocated to popularize modern irrigation practices. The high ranked authorities in the country are studying carrying a strategic plan to discover and develop the deep underground water, in addition to adopting the sustainable polices for the use of the underground water.

### **3.2 National plans or strategies available in other social and economic areas**

The discovery of oil and its production in commercial amounts, and the Government efforts to invest the newly gained financial resources in developing other economic sectors, created new economic challenges in the country. This is in addition to the creation of the new Federal Government late in 1971, which increased the duties of providing the needed public services and creating the atmosphere for overall economic development. The challenges made it important to organize the development activities in a way to satisfy the growing needs and the use of the resources wisely.

The UAE and since its establishment has not spared efforts to conserve its environment, develop natural resources on sustainable bases and combat desertification. The UAE considered this as one of its development pillar and thus was able to accomplish great achievements in the various fields related to the protection of the environment and combating desertification. In a relatively a short period, these achievements would not have been possible without the wise policies and the urgency that His Highness Sheikh Zayed Bin Nahyan, the president of the UAE, has placed on dealing with the environmental issues. His Highness highlighted this interest in his message to the Earth Summit in 1992.

The UAE interest in the environmental issues was expressed in fulfilling the UAE commitments towards the international agreements, which it joined. One example is the UNCCD, which it joined in January 1999.

The establishment of the Federal Environmental Agency (FEA) in 1993 reconfirmed the UAE interests in the environment and was a major step towards consolidating the role of the Federal Government in addressing environmental concerns in the country. This included the preparation and adoption of the UAE National Environmental Strategy and the National Environmental Action Plan on 2002 and the National Action Plan to Combat Desertification (Draft) on 1995.

There are other sector relevant plans and strategies in agriculture, energy, education, trade, health, poverty eradication, migration, forests, climate change, biodiversity, coastal and marine resources ...etc. These have been discussed within the UAE National Environmental Strategy.

#### **3.2.1 The National Environmental Strategy and the National Action Plan of the UAE.**

The Federal Environment Agency prepared The National Environmental Strategy and the National Environmental Action Plan for the UAE. The Strategy and The Action Plan were adopted on 2002 in the context of the national policies for conservation and sustainable use of natural resources, combating desertification and fulfilling the commitments of Agenda 21. The first part completed in December 1998, concerned with the UAE's National Agenda 21, and included the 10 working groups sectors reports. The sectors are: Municipalities, Water Resources, Marine Environment, Planning and Urban Environment, Agriculture and Land Resources, Industry, Energy, Health, Education and Environmental Awareness, Oil and Gas.

The second part of the strategy, completed in 1999, included the strategies and the environmental action priorities of each of the ten sectors. Accordingly, the following were selected as of National Priority, i.e. (National Agenda 21): fresh water and its resources; pollution of air, fresh water, marine environment; wastes management; urban environment; loss of land resources and the biological diversity.

The third part of the strategy completed in 2000. It included the proposed programs that would achieve the sustainable development. Of relevance to the issues of this report the proposed projects of the Water Sector and the Agriculture and Land Resources Sector. They cover what is required by the UNCCD to be implemented for combating desertification.

### **3.2.2 Preliminary study on protected areas in UAE**

UAE started taking care of wildlife and protection of endangered species since early times. A series of terrestrial and marine protected areas were established. In order to promote further the existing efforts, The Federal Environmental Agency started carrying a preliminary study on the protected areas in UAE. It is expected that the results of this study will pave the way for adopting a national conservation strategy.

### **3.3 The draft national UAE plan for combating desertification**

The UAE prepared in cooperation with ESCOWA (in 1995) a draft plan of action for combating desertification in the UAE. The plan was not implemented, it was thought it is wise to replace it with the UAE' National Environmental Strategy And The Plan of Action.

### **3.4 Scientific & technological activities relevant to combating desertification**

Many scientific & technological activities were carried out in the UAE, resulting in greening deserts, afforestation, planting nutritious productions for human being and animal feed. Such activities started with the formation of the country in the 70<sup>th</sup> of the previous century, before the execution of the convention of combating desertification. These practices give UAE an advantage when talking about combating desertification. UAE way in taking decisions relating to combating desertification is built upon a scientific base of researches, information systems and resources management & activities control. Other concerned parties and units in the country are carrying out many relating activities, according to their specialization. The big achievements in the agriculture field play an important role in reaching the ultimate goal of food subjective sufficiency. Many experiments were done to plant different types of fruits & vegetables using modern technologies for increase & improve of production. Those experiments have given good results when using technologies available in governmental research centers in Al Ain, Al Zaid, Al Hamarania & Kalbaa, starting from mechnization of palm pollination ending to examining the plantation of more than 30 kinds of wheat.

#### **3.4.1 Traditional technologies & knowledge**

Rational leadership of H.H. Sheikh Zayed Bin Sultan Al Nahyan, president of the country, in initiating a modern country with the attempt of achieving the harmony with the local environment and the conservation of the heritage and the traditional knowledge & traditions, so that to protect it from deformation.

Along with the H.H. care and continuing directions for protecting the local heritage, widely spread centers, societies, protectorates, museums, interested clubs were formed such as Center for Studies & Documentation, Heritage & History Committee, Local Heritage Animation Society, Equestrian Clubs, Camel Racing Unions, Traditional Environmental Industries Centers and Local Groups for Artists. In March 1985, the Local Heritage Animation Society was established with the purpose of preserving & animating the heritage and traditional knowledge in order to be apparent for the consecutive generations to have an idea how their grandfathers used to live and to shade the light on the inherited traditions & knowledge. The

same society has later one established Zayed Local Heritage Village, which is now representing a pioneer symbol providing old traditional life elements before recent development.

UAE residents are routed from different Arabian groups, where some of them used the “Traveling Badawi” style of live depending on breeding camels & goats, as most of them were settled using simple agricultural & plantation of palms in Liwa Oasis. On the coastal area, groups used to work as fishermen & practiced pearls hunting. In Al Ain Oasis, there are the groups practicing agriculture specially planting dates using underground water and Aflaj irrigation. In Northern Emirates where the rainfall is relatively higher, people practice agriculture through out the whole year. In Hajar Mountains of Al Fujairah, agriculture is practices using the establishment of stages; where in Dubai, Sharjah & Galfar (Ras Al Khaimah), people are using the trade life style by boats & modern ships.

### **3.4.2 Early warning**

Because of its responsibility towards securing lives & belongings in Air, Sea & Lands, Ministry of Communication is trying to know about the climate changes in the country. For that purpose, a project of forming an administration for metrology is being executed since January 1992, steering the national facility for Metrology & furnishes it with the modern satellites used for metrology. This project is now ready to provide metrological services for all social & economical development sectors through out the country. The National Facility consists of the main center for metrological predictions, center for metrological communication, a center of measuring metrology methods, a workshop for metrological systems maintenance & a general library for metrology. Ministry of Agriculture & Fisheries has 10 main metrological stations provided with more than 60 machines for measuring temperature of Air, land, water, humidity, directions & speed of wind, quantity of rain, evaporation. Also, there are 32 other stations for measuring rainwater quantities.

All the previously mentioned stations & centers are used to monitor extremism in the climate elements specially temperature, rainfall & wind. Also Ministry of Agriculture & Fisheries undertakes monitoring the changes in grassing & agricultural vegetation cover & its directions.

## **4 INSTITUTIONAL MEASURES TAKEN TO IMPLEMENT THE CONVENTION**

### **4.1 The functional national coordination body (NCB) of the UNCCD**

The Federal Environmental Agency (FEA) was authorized to be the functional national coordination body (NCB) in the UAE for the UNCCD by the Council of Ministers decision number 452/4 – 1997. In relevance to this His Excellency the Minister of Health and the Chairman of the board of directors of FEA established the “N.C.F.UNCCD” (The National Committee for the Follow up of the UNCCD) in 17/6/2001. The “N.C.F.UNCCD” is formed of 25 members representing 17 bodies working in the fields related to the UNCCD.

The organizational structure of the FEA consists of several directorates made of sections among which is the Agricultural Activity And Combating Desertification Section. Similar units are also operating at each emirate level, reflecting the interest of the country in conserving the natural resources and combating desertification & desert greening. In order to provide adequate coverage, the government actually pursues capacity building through local training programs and external scholarships for obtaining higher degrees in areas relevant to combating desertification.

### **4.2 The Legal and Legislative Frame-work for Protection of the Environment:**

UAE issued Law No. 24 concerning Environmental Protection and Development in 1999. It includes developing natural resources and sustaining biodiversity in the UAE through the utilization in the most efficient and sustainable manner to the benefit of present and future generations, development of wild environmental resources, give attention to the biological diversity and increasing the green spaces using the modern technologies and ways that protect & develop the agricultural areas, constrict any activity that damage or harm to the quantity/quality of vegetation cover causing desertification or natural environment deformity, implementing provisions an approved international and regional agreements related to environmental protection, reducing and controlling pollution and conservation of natural resources.

### **4.3 Integration of Combating Desertification programs into the National Development Plan**

It is important here to emphasize once more that The United Arab Emirates is peculiar than other countries on matters related to strategies and plans dealing with combating desertification. “**Desert Greening**” comes first in UAE polices and then comes as part of this desert greening, treating those areas affected by the increase in water salinity.

At the implementation level, UAE concern for Combating Desertification is highlighted in the first and second parts of the National Environmental Strategy, which was adopted on 2002. In addition, the chapters that are related to agriculture and land resources and water resources included objectives, policies and measures that are needed to conserve the land and water and to combat desertification. The programs of the National Environment Strategy were developed including activities related to combating desertification and reducing the impact of aridity. Once the National Action Plan to combat desertification is completed and approved, it will be integrated into the National Development Plan.

The Cabinet of Ministers formed on 28 January 2002 “**The National Committee To Follow The Implementation Of The UAE National Environmental Strategy And Its Action Plan**”. This committee is assigned to make detailed studies on how to implement the sectored programs proposed in the UAE strategy. Desert greening and combating desertification are among those programs.

### **4.4 Sub-regional, regional and international cooperation in combating desertification**

The UAE has participated in the sub-regional and regional meetings, e.g. The Sub-regional Action Plan meetings for West Asia held in Bonn, Oman; Riyadh on 2000-2001 to discuss the preparations and the implementation of SRAP and NAP activities. At the national level UAE is now preparing the inventory programs for water resources (TN1) and vegetation cover (TN2) as part of SRAP activities for West Asia, as well as participating in the regional meetings for Asia. The regional and sub-regional programs have emphasized the need to harmonize their programs with the goals of National Action Program that include monitoring and assessment of desertification, early warning for drought and desertification, water resource management, capacity building, developing rangelands and forests, and sand dunes fixation, ... etc.

In 2000-2001, UAE actively participates in the Steering Committee to Combat Desertification of CAMRE. The committee in cooperation with sub-regional and regional organizations was able to implement several activities on 2000-2001 in the framework of the program for Combating Desertification and Mitigation of Drought effects including management of water resources, rehabilitation of vegetation cover and protection and conservation of genetic resources.

At the national level also, a survey of the coastal areas of the UAE was conducted using field surveys.

The “NCF.UNCCD” (The National Committee for the Follow up of the UNCCD) will link the national programs with the sub-regional and regional programs to benefit from the available capabilities and expertise.

## **5 PARTICIPATION IN PREPARATION AND IMPLEMENTATION OF THE NATIONAL ACTION PLAN**

The units and parties in UAE, concerned with “Desert Greening Projects and Programs,” participate fully in identifying the priorities of the national action programs. Public awareness programs are among them. A committee was established for this purpose from all those concerned with the protection of the environment.

The establishment of the “NCF.UNCCD” (The National Committee for the Follow up of the UNCCD,) is a step further in the participation process in the preparation and implementation of national action plan. Communication and information exchange among the concerned units and parties is carried through the modern methods of communication: telephone, fax, and email, in addition to the traditional methods of meetings and verbal consultation.

## **6 THE CONSULTATIVE PROCESS AND PARTNERSHIP AGREEMENTS WITH DEVELOPED COUNTRIES**

In respect to the National Action Plan, consultations with the concerned units and parties are carried via the “NCF.UNCCD”. The “NCF.UNCCD” was formed on 2001 to carry out the preparations of the National Action Programs to combat Desertification. However, the need arises both at UAE and GCC levels for technical assistance from donors and international organizations. UAE will reflect these technical needs in the programs to be prepared for combating desertification.

The partnership with the international organizations and the development countries is very limited in some technical aid.

## **7 ACTIVITIES RELEVANT TO COMBATING DESERTIFICATION THAT HAVE BEEN IMPLEMENTED**

The main activities relevant to combating desertification and conservation of natural resources include:

- Developing laws and regulations relevant to conservation and sustainable management of the environment and renewable natural resources.
- Preparation of the National Atlas that includes geographical and geological general information.
- Conducting many surveys on ground-water resources.
- Surveying the number of Aflaj and identifying the quantity of their water productivity.
- Developing wastewater treatment plants with an annual production capacity of 108 million cubic meters.
- The total agricultural (cultivated crops and agro forestry) area (in thousands of hectares) increased from 32.5 to 43.6, 68.3, 161.7, 266, and 546.5 consequently in the years 1975, 1980, 1985, 1990, 1995 and 2000.
- The agro forestry area (in thousands of hectares from the total agricultural lands) was increased from 40, 100, 200, 300 consequently in the years 1985, 1990, 1995 and 2000.

- The suitable available lands for agriculture was less than 200,000 hectares in 1975 approximately 2.4 % of the total area of the country. The actual total agricultural (cultivated crops and agro forestry) area reached in the year 2000 is 6.5 of the total of the country.
- The forestation areas have been developed to reach 300,000 Dunms.
- Establishment of several natural reservations on islands and remote desert areas.
- Dubai, Al Ain, Sharjah and Abu Dhabi Municipalities have prepared land use maps defining agricultural, urban and public areas.

## **8 NATIONAL ALLOCATIONS FROM NATIONAL BUDGETS**

The national action program is early in its preparatory stages. But the concerned parties each in its area of authorization finance existing and ongoing desert greening activities relevant to water resources, crops cultivation, agro forestry. Financial aid is provided in support to animal feed production in order to release pressure on natural grazing lands, provision of water networks, encouragement of local agricultural crop production. Local actors are ensured local funding resources and aid. Funding depends on the annual budgets of the concerned parties each in its area of authorization. Each sector allocates funds for desert greening and combating desertification projects and programs.

The International Center for Biosaline Agriculture (**ICBA**) is an international applied agricultural research and development center established in Dubai. **ICBA** was established with funding from the Islamic Development Bank and additional support from OPEC Fund, the Arab Fund for Economic and Social Development, The Government of The United Arab Emirates through its Ministry of Agriculture and Fisheries and the Municipality of Dubai.

## **9 BENCHMARKS AND INDICATORS UTILIZED TO MEASURE AND ASSESS APPLICATION OF THE UNCCD**

Implementations of “**Desert Greening Projects and Programs**” are the most important benchmarks and indicators utilized to measure and assess application of the UNCCD. These projects and programs are continuously under review, to insure their success and continuity. A National Committee (the “**NCF.UNCCD**”,) was formed on 2001 to carry out the preparations of the National Action Programs to combat Desertification. However, the need arises both at UAE and GCC levels for technical assistance from donors and international organizations, UAE will reflect these technical needs in the programs prepared for combating desertification.

Agricultural policies in the UAE have been geared to encourage rational use of natural resources and achieving the highest level of yields. Also there is a common agricultural policy for GCC that was drawn in 1984 and amended in 1999.