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UNEP

From the desk of

SHAFQAT KAKAKHEL

Deputy Executive Director
and Officer in Charge of
UNEP

environment and cultures it visits. But sensitively managed, it can deliver sustainable livelihoods and a new generation of fans of the desert world.

These are among the findings of UNEP's Global Deserts Outlook being launched on this year's World Environment Day to mark the UN International Year of Deserts and Desertification. This year's slogan for the Day is 'Don't Desert Drylands' and the main celebrations are in Algeria.

Desertification is one of the hardest and most intractable environmental problems. Thirty-six countries are affected by it, or by land degradation, in Africa alone, and an estimated 75 per cent of the continent's farmland is rapidly losing the basic nutrients needed to grow crops. Some estimate the cost of this loss – in some of the poorest countries on Earth – as \$4 billion a year.

Traditional wisdom

Poverty is a primary driving force behind the process. It forces many farmers to cultivate marginal land continuously, without fallow periods, thus crippling it. We must urgently break this cycle by offering alternative livelihoods and regaining traditional land management and wisdom – and through direct measures like promoting agroforestry and harnessing the abilities of earthworms, beetles, fungi, bacteria, and other organisms to boost the fertility of the soil.

Otherwise the desert margins – where the drylands and the desert lands meet – will continue to witness an unsustainable battle, with tragic long-term consequences for both their ecosystems and their peoples ■

YOUR VIEWS

*We would like to receive your feedback on the issues raised on this edition of **Our Planet**. Please either e-mail: unepub@unep.org or write to:*

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The world's deserts, covering a fifth of its land surface, conjure up many emotions, many contradictory ideas. Hardship and romance, bareness and awe-inspiring beauty.

The driest places on Earth, they are home to 350 million people and some of the rarest and most curious species known. Culturally and spiritually they stand in the centre of at least two of the great religions. The desert was the backdrop to the life and teachings of the Prophet Muhammed, while Jesus was tempted by the Devil in one such wilderness.

Climate change

For some, deserts mean black gold: half the world's oil comes from them and three – quarters of oil reserves lie beneath their sands. For others they offer the opportunity of a low carbon, or even carbon-free, world, controlling climate change: makers of solar thermal power plants claim there is enough solar radiation hitting just one per cent of their surface to meet the whole world's needs.

Desert ecosystems support the growing understanding that the environment is not a luxury, but a key factor in overcoming poverty and an economic basis for livelihoods, true sustainable development.

Their often harsh and arid conditions have spawned animals and plants uniquely adapted to them. Flora in a variety of fantastical forms – sometimes able to lie dormant for years – burst,

like the fabled phoenix, into short-lived but highly productive life after rain.

Such super-fast growth and massive seed production – so essential for survival – has made many dryland plants the basis of agricultural societies. Wheat and barley evolved from desert annuals in the Near-East some 7,000-9,000 years in the past, as did maize and squash in southern Mexico around six millennia ago. Experts believe other food crops are waiting to be discovered in these unique natural laboratories.

Chemicals and pharmaceuticals, derived from micro-algae and medicinal plants that thrive in the year-round high solar radiation, are emerging onto global markets. Many scientists suspect that, given the unique evolutionary history of many desert plants, their real pharmaceutical potential has yet to be realized.

Deserts are even being used for fish farms. Shrimp are being grown in the high temperatures of the Arizona desert in the United States. And pilot projects in India's desert state of Rajasthan have found its saline water – which hinders crop growth – ideal for the purpose.

Desert romance

The romance of the desert – fueled by such classic literature as the Thousand and One Nights or Arabian Nights and films like Lawrence of Arabia – increasingly attracts tourists. Tourism can be a damaging extractive industry, consuming and subsuming the



Frans Lemmens/Still Pictures

Answering Cries of Despair

ABDELAZIZ BOUTEFLIKA on World Environment Day calls for a charter on deserts and desertification

Algeria is greatly honoured to have been chosen by the United Nations Environment Programme to host the 2006 World Environment Day celebrations. We are particularly proud to have been chosen, as this year's focus is on deserts and desertification.

The official slogan for WED 2006, 'Don't Desert Drylands', addresses sustainable development in the deserts. In order to respond to the concerns and expectations of many countries on this issue, the UN General Assembly adopted, at Algeria's instigation, Resolution 58/211, which established 2006 as the International Year of Deserts and Desertification.

Natural disasters

Through its dual role as host country of World Environment Day and as the official 'voice' for the 2006 International Year of Deserts and Desertification, Algeria is receiving international acknowledgement for its efforts towards environmental protection and balanced and sustainable development, as well as its wide and varied activities aimed at protecting the environment. Algeria is keen to establish an international, innovative and sincere partnership, based on the principles of fairness, solidarity and common responsibility.

My country is delighted to host WED 2006 on the African continent, large sections of which are covered by deserts and drylands, making it the most affected by and most vulnerable to the devastating consequences of the alarming degradation of fertile soils. Persistent and cyclical droughts, frequent natural disasters, poverty, migration, and other dramatic aspects of underdevelopment have had numerous consequences that cannot be confined to narrow national and regional contexts and spaces because they go beyond the political and natural borders of nation states. These numerous consequences have in fact been underlined on many occasions by the Secretary-General of the United Nations, Kofi Annan.

Combating desertification

The New Partnership for Africa's Development (NEPAD) – a unique and innovative African initiative of which Algeria is one of the key instigators – is, without a doubt, a resolute and responsible response to the major challenges that the continent faces today. With a wealth of natural and human potential, often little or badly used, Africa must face the challenges of globalisation, especially those related to better governance and steady and sustainable development, the principal pillar of which is the environmental dimension. Combating desertification, conservation – and the integrated and rational development of arid, semiarid, mountainous and forest areas, preserving water resources and reducing poverty are therefore key objectives that must be quickly addressed, in order to put an end to the devastating impacts of underdevelopment on the continent.

On the occasion of World Environment Day, the international community is called upon to reflect on the possibility of forging a sustainable partnership, responsible and innovative, which should be able to contribute effectively to the success of this exemplary African initiative in Eco-Development. In so doing, it will be answering the cries of despair, the aspirations and expectations of nations and peoples who must cruelly ▶

endure daily hardship and an uncertain future. We must face up to the fact that the sometimes irreversible degradation of cultural, natural and agricultural heritage, of fragile ecosystems and biodiversity, the rapid spread of deserts, as well as inadequate international response and local efforts to combat desertification, aggravate conditions of poverty across the world, deepening the crisis on a global scale.

In 2005 in San Francisco, under the slogan 'Green Cities: Plant for the Planet', we were invited to adopt accords for the creation of a network of cities striving for a sustainable Urban Environment. This year, we call for the adoption of a World Charter on Deserts and to Combat Desertification to mark World Environment Day and the closing of the International Year of Deserts and Desertification. In this way, we hope to contribute to achieving some of the Millennium Development Goals, goals which were reinforced and renewed by the decisions made by Heads

of State and Government during the World Summit held in New York in September 2005.

All our efforts aim to sustainably reinforce our common efforts towards the development of human rights, a healthy environment, a decent and fulfilled life and a global, real, and sustainable development, for all. It is therefore our duty to unite and consolidate our efforts and means and to make them work for our common conviction, that of a common future, for the generations of today and tomorrow and for their legitimate right to live on a protected and safe planet.

Let this World Environment Day be an opportunity for us all to be messengers of world peace and harmony, messengers of hope for the future – that of our children and that of our planet ■

H.E. Abdelaziz Bouteflika is President of the Democratic and Popular Republic of Algeria.

Cherif Rahmani: Don't Desert Drylands

This slogan, in the form of an urgent call to action, defines the context in which World Environment Day 2006 will be celebrated. Algeria, my country, is honoured to have been chosen by the United Nations Environment Programme (UNEP) as host of this day. Algeria is doubly honoured, first and foremost because the majority of its territory comprises desert and also because, by choosing Algeria, it is the whole of Africa that is honoured.

This year, the theme builds on Resolution 58/211 under which the General Assembly of the United Nations proclaimed 2006 International Year of Deserts and Desertification. This decision represents a welcome outcome of the multifaceted steps taken by my country on deserts, initiated and developed for many years, but that has certainly experienced a revival since the year 2000.

Many efforts, many initiatives and many plans of action have thus been successful. Algeria has committed itself, resolutely and consistently, to policies that not only mobilize but unify as well. Under the innovative environmental policies initiated by His Excellency Abdelaziz Bouteflika, President of the Republic, we have developed and conclusively and visibly expanded on the commitments made during the Summits on the Environment and Sustainable Development of Rio then Johannesburg, as well as the UN's Summit on the Millennium Development Goals. We have also tried, and often succeeded, at our level, to encourage partnerships and mediums of cooperation and dialogue at a regional and international level, while always ensuring that our approach respected common principles, such as those pertaining to "shared but differentiated responsibility". Should one not therefore, consider that by choosing Algeria as the focal point for the celebrations in 2006, the aspirations and very valid expectations awakened by the UN Resolution declaring this the International Year of Deserts and Desertification to have been consecrated?

It is in any case justifiable that we once again declare ourselves honoured by this selection, in as much as the Resolution was adopted following the initiative taken by my country and that of the Fondation Déserts du Monde created under the patronage of H. E. Abdelaziz Bouteflika.

I have the pleasure and the privilege to reaffirm here, in my capacity of Ambassador, Honorary Spokesperson of the UN for the 2006 commemoration, how seriously we take the demands of the mission we have been given.

We must first give back hope to the millions of people in drylands. Hope alone, however, can not satisfy expectations when survival is often the prime issue. We not only feel concern at the often chronic material poverty in which entire communities are sinking in desert and semidesert regions.

Their poverty is, in our view, the supreme issue. And it is there that we draw on the reasons for our actions and our commitment. Algeria will host a high level meeting at the end of the year, in the context of the International Year on Deserts and Desertification. The meeting will take stock of all that was warmly and generously thought of and retained concerning deserts and its people. This will be the crowning achievement, not only suggested but also programmed, of a series of actions throughout the months that make up this symbolic year. The fight against desertification is an unending one. The fight against poverty is an imperative one, which now categorically forces itself upon us.

So what territory in reality is touched by our action? It is obviously the planet as a whole. For, if deserts only appear here and there in man's view, the heart of human sensitivity, on the other hand, resides everywhere.

We must speak up everywhere in favour of the deserts and the populations that inhabit them and that have formed such extraordinary civilizations, such extraordinary cultures!

We must sensitize man everywhere because where man's heart and spirit are conquered, they put themselves at the service of the causes that have moved them positively.

Let us always remember that we are at the service of one slogan: Don't desert drylands! Because that slogan puts us at the service of those who, though possibly unaware of our efforts, nonetheless and paradoxically, expect much from us ■

H. E. Cherif Rahmani is Minister of Environment of Algeria. He is also President of the Foundation 'Deserts du Monde' and Honorary Spokesperson of the UN International Year of Deserts and Desertification.



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Regaining

Ground

CRISTINA NARBONA describes a developed country's experience of desertification and the measures it has taken to combat the problem

As a developed country affected by desertification, Spain has been at the forefront of the struggle against it for well over a hundred years. It started restoring degraded land areas in the second half of the nineteenth century. Since then a tenth of the country – some five million hectares of land – are estimated to have been reforested to protect soils and regulate the water cycle.

Spain was the first industrialised country to act on the recommendations of the 1977 Nairobi Conference on Desertification, drawing up the Programme of Action for the Mediterranean Shore the following year. Three years later it started implementing the United Nations Action Plan to Combat Desertification through its LUCDEME Project, which still continues. It then took an active part in negotiating the Convention to Combat Desertification (UNCCD) and its annex on implementing it in the Northern Mediterranean.

It made a detailed diagnosis of desertification in the country through its National Action Programme

on Desertification (NAPD), analysing interactions with strategic planning structures. This demonstrated the coherence between the principles and actions proposed in the NAPD and such sectoral plans as: the Spanish Forestry Plan and regional forestry planning; the National Water Plan and Water Basin Plans; the programmes of regional and rural development; and the National Irrigation Plan. The Convention's principles have also been integrated into agro-environmental requirements for receiving aid under the Common Agrarian Policy, a new Law on Mountains, planning orders to rehabilitate overexploited aquifers, plans for drought management, and other broader areas, such as rural development policy.

Strategic planning

The diagnosis showed that much had been done in the past, but that policies and actions had been dispersed because issues of soil and water resources affect many sectors. This underlines the importance of coordinating policies under the NAPD, essential if harmonized solutions are to be found, and harmful land-use conflicts avoided.

A wide range of diverse measures have been taken in farmland, forests and water resource management, covering research and development, monitoring and evaluation, and awareness raising.

Eco-friendly regulations have integrated environmental considerations into farm policy on prices and markets, with a range of preventative requirements and practices against unrestrained desertification. The programme of agro-environmental measures – which obliges all farmers to follow a code of good practices – has been consolidated and has proved to be a useful instrument in combating desertification. And there have been positive results from another programme which offers incentives for reforestation, especially in marginal areas.

The Spanish Forestry Plan – whose objectives, priorities and action guidelines are integrated with regional plans and strategies – aims to protect soils against erosion and desertification, regulate water sources and supply, and undertake dynamic planning of water basins, focused on sustainable management of resources.

These activities are co-financed by the European Union, while the Department of Biodiversity will invest some 80 million euros in the Plan in 2005–2008: this year 10 million euros will be spent on urgently restoring areas affected by forest fires. Each of the planning instruments used – the “National Soils Erosion Inventory”, the “Forestry Map”, and the “Planned priority activities for water-forestry restoration, erosion control and defence against desertification” – sets out a basic range of activities, defines priority areas, puts forward proposals and appraises possible actions.

Among other measures in this field, a Plan of Control of Forest Resources will provide sustainable forest management. Over 16 million euros will be invested to improve facilities for preventing, observing and extinguishing forest fires, and for providing preventive silviculture and awareness campaigns. And work will ►

be done to defend and protect mountain areas against pests, diseases and damage arising from drought and other adverse climatic conditions.

Water policy

Water policy combats desertification by mitigating the effects of drought, and managing groundwater and the salinization of soils by irrigation systems. River basin authorities have prepared special action plans for emergencies and possible drought, and a global system of water resources indicators. The Ministries of Environment and Agriculture, Fisheries and Food, have established a National Drought Observatory as a centre of knowledge to forecast, mitigate and monitor its effects. The Agrarian Administration provides drought insurance cover for the main arid area crops.

Managing and protecting groundwater is to be incorporated into water resource planning, while a Groundwater Action Plan should be prepared for each river basin to facilitate sustainable use. Under the Water Act, every basin plan must contain planning for water, forestry and soil conservation, and should include protective action for catchment areas and for regulating the water cycle. The National Water Plan incorporates this, while the National Irrigation Plan contains environmental criteria for land and water management to prevent land degradation, restore aquifers and reduce the processes of desertification. There is also a programme for environmental monitoring of irrigation, to track the changes in its effects and possible remedial measures.

Research and development

Spain has a large and varied research community studying desertification. The main studies were first undertaken in the 1970s: many were part of the LUCDEME Project while others were carried out by universities and the Higher Council of Scientific Research. Since 1986, all these efforts have been incorporated into the National Research and Development Plan. Autonomous communities and the European Union also devote attention to these matters.

Various instruments for assessing, monitoring and making inventories of areas affected by desertification are outlined in the working document of the National Action Plan. The Department of Biodiversity is responsible for:

- The soils maps of the LUCDEME Project, which help plan restoration or rehabilitation in areas affected by desertification, and are essential for preparing maps showing the capacity of use and vulnerability of any given territory. They have been drawn up since 1985 in collaboration between the universities and the Higher Council for Scientific Research. 142 maps now cover 13.93 per cent of the country and will be expanded in the medium term to cover all affected provinces. More than 450,000 euros will be spent on mapping and digitalization in 2006–2007.

- The network of experimental monitoring and assessment of erosion and desertification (of the LUCDEME Project) has 46 experimental stations,

managed by universities and research centres under agreements with the Department of Biodiversity. It was established in 1995 to coordinate and better use studies by various research since the 1980s, and provides 'in situ', continuous and detailed monitoring of the essential mechanisms of desertification. One and a half million euros will be allocated to its maintenance in 2006–2008.

- Assessment of action to combat desertification, demonstrating useful techniques to apply to affected areas, and disseminating available strategies and restoration methods in Spain and other member countries of Annex IV of UNFCCC. Its allocation will be 380,000 euros.

- The National Soils Erosion Inventory, which updates the map of the state of erosion in the entire country drawn up between 1986 and 2002. Maps of 13 provinces have been published, six more are being prepared, and work is about to begin on a further four provinces. The allocation will be 3 million euros.

- Establishing a system of indicators of desertification in Spain. Once their selection and definitions are completed, they will be applied to specific cases.

A register and database describing all the sectors linked to combating desertification is being prepared and meetings and workshops arranged to promote their assimilation and technological improvement. Materials are being published, and exhibitions held. A network of demonstration projects is being set up to cover restoration and sustainable management of the affected areas: this identifies, formulates and develops a group of projects, and shows the technical, environmental and economic feasibility of proposals for managing, using and/or restoring land involved in combating desertification.

Spain is to hold two major meetings to study all aspects of desertification in greater depth. The Second International Symposium on Desertification and Migrations will be held in Almeria from 25 to 27 October 2006, marking the International Year of Deserts and Desertification. And in autumn 2007 we will host the UNCCD's eighth Conference of the Parties ■

Cristina Narbona is Minister of the Environment, Spain.



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