

Desertification in the Mediterranean Region. A Security Issue

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Desertification in the Mediterranean Region. A Security Issue

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FOREWORD

Desertification in the Mediterranean Region: a Security Issue

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Security issues related to desertification in the Mediterranean Region were the subject of a special NATO workshop held on 2-5 December 2003 at the Museum of Sciences Principe Felipe in Valencia, Spain.

This workshop was organized by the U.S. Environmental Protection Agency (Las Vegas, Nevada, USA), Centre for Desertification Research (Valencia, Spain), and the Desert Research Institute (Reno, Nevada, USA) on behalf of the NATO Science Committee and the NATO Committee on the Challenges of Modern Society (Public Diplomacy Division). Additionally, the European Society for Soil Conservation participated as a collaborating institution. Other participating institutions included the Spanish Ministry of Environment, Generalitat Valencia (Department of Territory and Housing), the Secretariat of the United Nations Convention to Combat Desertification and the City of Art & Sciences of Valencia which hosted the Meeting.

The Workshop focused on two basic concepts: *security* and *desertification* and their linkages. Since the end of the Cold War, traditional security concepts based on national sovereignty and territorial security have increasingly been brought under review. Currently, a broader definition of security that would incorporate non-traditional threats and their causes, including environmental stress, has been advocated. Most current research indicates that global environmental change and its subsequent socio-economic effects are likely to continue and intensify in the future. The

intensity as well as the interdependence of these problems will have affects not only at local scales, but also on an international scale and will begin to impact developing and industrialized countries more directly. These challenges call for mutual cooperation at the international level which provides for multi-disciplinary integration of both technical and policy-making individuals involved in the areas of environment, development of natural resources, foreign relations, and security.

Desertification is recognized as a process of land degradation in arid, semi-arid, and dry sub-humid areas that is the result of natural phenomena (e.g. climate variation) and human-induced factors. The outcome of this type of degradation has typically been considered to be either a reduction or a loss of biological and economic productivity. The scope of the workshop included identification of the physical processes of desertification specific to the Mediterranean Region. Additionally, it was our intent to examine how changing environmental conditions may potentially reduce stability and peace in the world and thus affect “environmental security.”

It is a great challenge for both scientists and decision-makers to include all of these considerations, interpret the impacts, and effectively communicate the importance of the results to a diverse audience. As a direct result of increasing discussion and research about the potential for large, regional-scale environmental changes and also the general acknowledgment of the relationship between environmental change and human social, economic, and demographic issues, there is now more attention paid to the relationship between environment and security. Thus, “*how environmental degradation in arid, semi-arid, and dry sub-humid lands (i.e. desertification) in the Mediterranean Region is related to human security*” became the central issue of the workshop.

For the purpose of this workshop the organizers engaged the Mediterranean countries that included 7 NATO Member countries, 3 NATO Partner countries, and 7 countries that comprise the Mediterranean Dialogue in the Middle East and North Africa for discussion of the issue. The region has a long historical record of political, economical, and cultural division and subsequently a long period of human occupation and resource utilization. The central importance of the topic and its relation to security attracted a large and diverse participation; over 225 participants from 22 different countries registered for the workshop. During the workshop an array of government diplomats, security specialists, and social and physical scientists from the Middle East, North Africa, Europe, and North America reviewed the actions of past and current Mediterranean land use practices,

especially in regard to environmental security, environmental consequences, and challenges for the future.

The concept of the workshop was to examine desertification as an issue with cultural, political, social, and economic importance and consequences. The workshop was organized into five topical sessions dealing with implications of Mediterranean desertification (Southern and Northern perspectives); consequences of degradation on social, economic, and political issues (especially food security and human migration); soil and vegetation monitoring techniques and programs; water resources and management; and forecasting techniques and advanced technologies. Additionally, four special sessions designed to facilitate and encourage the participation of attendees were organized. They included the following topics: 1) possibilities for stopping desertification (main constraints and problems); 2) combating the lack of societal perception of desertification threats (improving communication); 3) international cooperation on sustainable development as a key issue to stop human displacement from Africa to Europe; and 4) the role of new technologies and traditional knowledge to alleviate famine and poverty.

Specifically, the objectives of the NATO Desertification Workshop were eight-fold:

1. To provide a focus on land degradation in arid, semi-arid, and dry sub-humid areas (i.e. desertification) within the Mediterranean Region;
2. To bring together interdisciplinary technical experts and decision/policy-makers throughout both the northern and southern Mediterranean States;
3. To recognize that there are remarkable demographic differences between the North and South Mediterranean and thus there are different socio-economic disturbance gradients as well as climatic gradients that affect environmental condition, sustainability of resources, employment, poverty, migration, and ultimately, security.
4. To evaluate the consequences of desertification to security both in regard to the ability of the environment to provide important ecological goods and services and relative to social and political instability;
5. To open discussion on the issue of linking security to environmental condition throughout the Mediterranean Region and to explore likely impacts on the social, economical, and political dimensions of human society;
6. To increase the knowledge base and provide assistance in developing mitigative measures and policy to thwart social and environmental instability;

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7. To encourage interdisciplinary research especially in regard to integrating social and natural science;

8. To promote better mutual understanding and friendly relations across the region.

The workshop has been made possible through the active cooperation and participation of experts from government, academia, private industry, and non-governmental organizations from the NATO member and partner countries and the seven member countries of the Mediterranean Dialogue. The workshop provided a multi-lateral forum for cooperation, information exchange, and dialogue among the environmental, development, foreign and security policy communities. Additionally, it provided an “enabling environment” to facilitate joint work programmes, e.g. bridging the Regional Implementation Annexes for Africa and the Northern Mediterranean within the UN Convention to Combat Desertification. The organizers recognize the importance of understanding the linkages between the environment and security in the Mediterranean and the importance of having open discussion which is inclusive to all those who inhabit the region. It has been our sincere hope and belief that this small effort represents the beginning of a larger process intended to bring environmental and societal stabilization to the area and thus will help advance the cause of peace. We would like to acknowledge and thank all those who participated in the NATO Desertification Workshop including those who not only provided expertise through the presentation of papers but to all those who engaged in discussion and contributed their organizational support and planning assistance in making the workshop a success.

December 2003

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The NATO Workshop, “Desertification in the Mediterranean Region: An Issue of Security” was a success due, in part, to the individuals and organizations participating in it. But it was the hard and diligent work of a number of people who really made it happen. We often don’t recognize that when a four day meeting goes smoothly, when the audiovisuals work perfectly, when the programs are well written, when dignitaries from many countries and international organizations arrive, give their key note speeches, and depart with effortless precision, that this is due to the hard work and organization of numerous people. It is these people that the organizers of the Symposium and editors of this Proceedings owe a tremendous debt of gratitude. Deniz Beten, NATO CCMS Programme Director, came up with the idea to combine the CCMS (Committee on the Challenges to a Modern Society) with the NATO Science Committee (SCOM). Without her perseverance and diligence, the workshop would never have happened. In addition to Deniz, we particularly appreciate and acknowledge the efforts of Sabina Asins Velis who served as Technical Secretary for the Advanced Research Workshop on Desertification and Oscar González Pelayo who served as Technical Editor for this volume. Additionally, we acknowledge the important contributions of Vicente Andreu, Julian Campo, Artemi Cerdá, Eugenia Gimeno, and Eva Lopez, from the Centro de Investigaciones sobre Desertificación (CIDE) of the Universitat de Valencia, Alison Trapp from the NATO Science Committee, and Martine Deweer from the NATO CCMS. These individuals, who worked mostly behind the scenes, are the ones who truly made the Symposium the success it was.