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MEDITERRANEAN ACTION PLAN

Third Meeting of the Task Team on  
Implications of Climatic Changes  
on the Syrian Coast

Damascus, 11-13 April 1992

**REPORT  
OF THE THIRD MEETING OF THE TASK TEAM ON IMPLICATIONS  
OF CLIMATIC CHANGES ON THE SYRIAN COAST**

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## **REPORT OF THE MEETING**

### Opening of the meeting - Agenda item 1

The Third Meeting of the Task Team on the study of the Implications of Climatic Changes on the Coast of Syria, was opened by Dr Nafi Mahmud Al-Shalabei, Deputy Director of the Meteorological Department, Co-ordinator of the Task Team, who welcomed the participants and introduced the presentations of each member of the Team about the progress of the collection of data for the study.

Dr L. Jetic, Senior Marine Scientist in the Co-ordinating Unit for the Mediterranean Action Plan (MAP) on behalf of Dr M. K. Tolba, Executive Director of UNEP thanked the Government of Syria for hosting the meeting. He continued by briefly outlining the background and scope of the meeting.

The meeting was held at the Ministry of State for Environmental Affairs. Meeting's participants and Task Team members are listed in Annex I to this report.

### Election of Officers and adoption of the Agenda - Agenda Items 2 and 3

The meeting unanimously elected Dr N.M. Al-Shalabei, Co-ordinator of the Task Team as Chairman, M. M. Eido as Vice-chairman and Dr G. Sestini as Rapporteur of the meeting. Dr L. Jetic acted as technical secretary of the meeting. The provisional agenda as proposed by the secretariat was adopted and appears as Annex II of this report.

### Presentation of the individual, preliminary draft reports - Agenda item 4

#### Introduction

Mr Y. Awaidah presented the section on basic facts about the coast of Syria. It was decided that this overview of the facts and problems should be concise, but complete, including the socio-economic aspects and any environmental problems. It should be illustrated by a general map of the coastal region and by a map of land-use.

Regarding Section 1.3, it was agreed that, although the Task Team accepts the results of the University of East Anglia 1992 Study, as the basic premises, a brief and simple discussion should be included on the degree of probability of the assumptions on temperature increase and precipitation predictions; as well on the approach of this climate impact study and on the difficulties to arrive at sensible conclusions that will support practical recommendations. Dr G. Sestini will contribute this section at the next joint meeting of the Task Team, in agreement with Messrs M. Eido and I. Al-Deen Khalil.

Regarding Climate (section 2.1), after the presentation by Mr Khalil and Mr Eido, it was suggested to improve the figures for climate data, and to use graphs instead of tables, whenever suitable, and to give more importance to the discussion of interannual variability and extreme events.

The Meeting acknowledged the in-depth analysis of the consequences of global warming on the factors that determine climate in western Syria, made by the two rapporteurs, and encouraged them to stress changes of air circulation, as the basis for analysing impacts on rainfall distribution and on storm waves.

The section on lithosphere was presented by Mr I. Al-Deen Khalil. It was noted that this section should stress those geological and morphological aspects of the region, that influence soil formation, soil and slope erosion, permeability or non-permeability (in regard to ground water), and coastal stability.

Description of soil types should be included here. The section should contain a simplified geological map, a surface hydrogeological map (if available), a morphological map, a (contour) relief map, a map of the coast with information on beaches, versus cliffs or dunes.

Coastal stability should include information on beaches that are stable, retreating or advancing, and on whether the Syrian coast is subsident, stable or rising.

Regarding the hydrosphere, summarised by Mr F. Al-Ek, a map needs to be included showing all the main streams, rivers, lakes, springs.

The section must stress the water balance, and what could happen to it in consequence of a climate change. About the marine hydrography, that will be added, data have to be found on waves, currents, sea level, salinity, temperature and water stratification - also in the context of the eastern Mediterranean (Levantine Basin) circulation.

Dr G. Sestini presented the Task Team with literature material and his own review on the subject.

Regarding the consequences of climate change and sea level rise, it was noted that several elements have to be considered: soil erosion, sediment budget at the coast, precipitation, wind and wave directions.

Section 2.4 (Atmosphere) contains data on air pollution of anthropic origin.

Section 2.5, (Natural ecosystems), should contain a map indicating areas that are still in natural condition, what types of vegetation and fauna (if data are available). Mr Y. Awaidah reported on contacts with the Marine Research Station to obtain data on marine biocenosis and the results of the recent Syrian-Russian oceanographic campaign.

Dr G. Sestini stressed that given the complexity of ecosystems, it is difficult to create proper impact analysis. Maybe this should be attempted only for those aspects that are vulnerable in regard to economic activities.

Section 2.6 (Managed ecosystems) was reviewed by Ms S. Nahawi. Comments regarding agriculture pointed to the need to complete the statistical information on production (coastal zone versus Syria) exports versus of local consumption, problems encountered by agriculture, especially in regard to water supply, to improve data on soil quality, and to mention agriculture management and the possible government plans for development.

Regarding the impacts of climate change, it was pointed out that analysis should consider each main crop, as well as the impact of increased evaporation on water reservoirs and on soils.

More data will have to be included in the report about managed forests, as well as on fishing (e.g. imports, market demand in Syria, etc.).

About section 2.7 (Energy and Industry) the data presented by Mr F. Al-Ek were judged sufficient to the scope of the report. Dr G. Sestini urged to examine various factors that besides climate change will condition future impacts, such as population growth and sources of energy.

Section 2.8 (Tourism) needed improving moderately, by including some statistics. Analysis of impacts should include consideration of plans for development of tourism, which could considerably change the coastline in future years.

Similarly, the sections on transport, services, health, sanitation and population (2.9, 2.10, 2.11) are practically completed and satisfactory, needing only minor additions and some maps (e.g. population density, by administrative areas). Like for tourism, projection of future situation, especially if derived from existing coastal region integrated planning, need to be mentioned.

#### Synthesis of findings

The Task Team jointly will discuss the possible implication of climatic changes on all aspects of the present physical and socio-economic situation, given the inter-disciplinary nature of the problem. Section 3.1 and 3.2 should enable non-specialist reader to obtain a clear idea of the conclusions.

#### Recommendations for action

Dr L. Jeftic referred to page 41 of the report of the Annex IV of the First meeting of the Task Team in which conclusions, from the experience of the previous studies were presented. This conclusion should provide a basis for a sensible practical recommendation to government and decision-makers, that coastal zone problems, both environmental and of resources management, need to be addressed in the coming years, not only for sustainable development, but in order to avoid very serious problems caused by climatic changes.

In addition, Dr L. Jeftic presented to the Task Team the Report of IPCC "Response Strategies Working Group": Methodology about the Assessment of Vulnerability of Coastal Areas to Accelerated Seas Level Rise, with the recommendation that it should be used by the Syrian Task Team.

#### Future meetings - Agenda Item 5

It was agreed that the next meeting of the Task Team will be held in Damascus from 4 t 8 July 1992.

#### Closure of the Meeting - Agenda Item 6

In his closing remarks, Dr L. Jeftic expressed satisfaction for the results of the meeting and the constructive spirit in which it was conducted. He also thanked the participants, Chairman and Rapporteur, the Government of Syrian Arab Republic and the staff of the Ministry of State for Environmental Affairs for technical and logistic assistance and their warm hospitality.

An exchange of courtesies followed after which the Chairman closed the meeting on 13th April 1992.

## ANNEX I

### LIST OF PARTICIPANTS AND TASK TEAM MEMBERS

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## **ANNEX II**

### **AGENDA**

1. Opening of the meeting
2. Election of officers
3. Adoption of the agenda
4. Presentation of the individual, preliminary draft reports
5. Future meetings
6. Closure of the meeting