



UNITED NATIONS ENVIRONMENT PROGRAMME

# Combating oil pollution in the Kuwait Action Plan region

UNEP Regional Seas Reports and Studies No. 44

Prepared in co-operation with





IMO

ROPME

## **PREFACE**

Ten years ago the United Nations Conference on the Human (Stockholm, 5-16 June 1972) adopted the Action Plan for the Human Environment, including the General Principles for Assessment and Control of Marine Pollution. In the light of the results of the Stockholm Conference, the United Nations General Assembly decided to establish the United Nations Environment Programme (UNEP) to "serve as a focal point for environmental action and co-ordination within the United Nations "system" (General Assembly resolution (XXVII) of 15 December 1972). organizations of the United Nations system were invited "to adopt the measures that may be required to undertake concerted and co-ordinated programmes with regard to international environmental problems", the "intergovernmental and non-governmental organizations that have an interest in the field environment" were also invited "to lend their full support and collaboration to the United Nations with a view to achieving the largest possible degree of co-operation and co-ordination". Subsequently, the Governing Council of UNEP chose "Oceans" as one of the priority areas in which it would focus efforts to fulfil its catalytic and co-ordinating role.

The Regional Seas Programme was initiated by UNEP in 1974. Since then the Governing Council of UNEP has repeatedly endorsed a regional approach to the control of marine pollution and the management of marine and coastal resources and has requested the development of regional action plans.

The Regional Seas Programme at present includes eleven regions  $\frac{1}{2}$  and has over 120 coastal States participating in it. It is conceived as an action-oriented programme having concern not only for the consequences but also for the causes of environmental degradation and encompassing a comprehensive approach to combating environmental problems through the management of marine and coastal areas. Each regional action plan is formulated according to the needs of the region as perceived by the Governments concerned. It is designed to link assessment of the quality of the marine environment and the causes of its deterioration with activities for the management and development of the marine and coastal environment. The action plans promote the parallel development of regional legal agreements and of action-oriented programme activities.  $\frac{1}{2}$ 

During its fourth session in 1976 the Governing Council of UNEP approved the preparatory work for convening a Regional Conference on the Protection of Marine and Coastal Environment of Bahrain, Iran, Iraq, Kuwait, Oman, Qater, Saudi Arabia and the United Arab Emirates. Subsequently, on the basis of a fact-finding mission sponsored by UNEP and supported by several United Nations agencies, a preliminary action plan dealing with the scientific and socio-economic aspects for protection and development of the marine environment of the region was prepared and reviewed by a series of technical meetings of Government-nominated experts. In April 1978 a

Mediterranean Region, Kuwait Action Plan Region, West and Central African Region, Wider Caribbean Region, East Asian Seas Region, South-East Pacific Region, South Pacific Region, Red Sea and Gulf of Aden Region, East African Region, South-West Atlantic Region and South Asian Region.

<sup>2/</sup> UNEP: Achievements and planned development of UNEP's Regional Seas Programme and comparable programmes sponsored by other bodies. UNEP Regional Seas Reports and Studies No. 1. UNEP, 1982.

Regional Conference of Plenipotentiaries was convened in Kuwait for the purpose of reviewing, revising and adopting the action plan and related legal instruments. The Conference, on 23 April 1978, adopted

- (a) the Action Plan for the Protection and Development of the Marine Environment and the Coastal Areas of Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates,
- (b) the Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution, 4
- (c) the Protocol concerning Regional Co-operation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency,  $\frac{4}{}$
- (d) resolutions on (i) interim secretariat, (ii) financial arrangements, (iii) steps to be taken for the establishment of the Marine Emergency Mutual Aid Centre, and (iv) co-ordination between the regional marine meteorological and environmental programmes.

The Action Plan has subsequently become known as the Kuwait Action Plan.

Paragraph 20 of the environmental management component of the Action Plan called for:

"Formulation of regional contingency plans for accidents involving oil exploration, exploitation and transport, and strengthening the meteorological services contributing to the development of contingency plans, and to their execution in co-ordination with existing or future marine regional meteorological programs."

As a contribution toward this end, IMO in co-operation with the Regional Organization for the Protection of the Marine Environment (ROPME) and UNEP, convened in Manama, Bahrain (6 - 10 December 1980) an international workshop on combating marine pollution. It was attended by experts from Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. A total of 23 papers on various aspects of oil pollution and combating of oil spillages were presented. A report of the workshop has been published by IMO (KAP.WS/5/3). The report contains a commentary on the workshop as well as a brief review of each of the papers presented. In this document are reproduced in full the substantive technical papers presented at the workshop.

<sup>3/</sup> UNEP: Action Plan for the protection of the marine environment and the coastal areas of Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. UNEP Regional Seas Reports and Studies No. 35. UNEP 1983.

<sup>4/</sup> Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution and Protocol concerning Co-operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency. UNEP 1983.

# CONTENTS

|  | Pages   |
|--|---|
| GENERAL OVERVIEW   | 200 - 100 - |
| A. Al-Zaidan: Kuwait Action Plan - Overall Concept<br>and progress Made  | 3   |
| R. Golob and E. Brus: Statistical Analysis of Oil<br>Pollution in the Kuwait Action Plan Region and the<br>Implications of Selected World-Wide Oil Spills to<br>the Region | 7.  |
| A. Nelson-Smith: Effects of Oil-Industry Related Pollution on Marine Resources of the Kuwait Action Plan Region  | 351   |
| O. Linden: Biological Impact and Effects on Fisheries of Oil Spill in Bahrain, August-September 1980   |   |
| POLLUTION FROM OFFSHORE EXPLORATION AND EXPLOITATION   | i nga palamatan katawa 19.<br>Tanggapan kacamatan 19. sak <b>61</b> .   |
| B. Dicks: Exploration and Exploitation of the Seabed for Oil-Biological Impacts in Perspective   | 63:   |
| E. Hull: Training in Oil Well Blow-Out Prevention and the Role of Simulators   | 89 I  |
| A.D. Read: Oily Water Discharges from Offshore Oil<br>Installations, Their Origin and Treatment and Some<br>Examples of Their Regulation                                   | 3. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  |
| J.Ph. Poley: Tailored Oil Spill Contingency Planning for Offshore Oil Blow-Outs  | 115   |
| D.J.S. Brown and A. Baxter: August 1980 Oil Spill<br>Clean-Up Project - Bahrain Report Summary of Task<br>Force Operations   | 125   |
| W.J. Lehr and H.M. Cekirge: Oil Slick Movements in the Kuwait Action Plan Region   | 147   |
| F. Krogh: Computer Simulation of Oil Spills State of the Art Regarding Models and Apolied Techniques   | 155   |
| F. Krogh: A Computer-Assisted Oil Spill Contingency<br>Centre with Emphasis on Data Bases, Risk and<br>Consequence Analysis  |   |
| SAFETY OF NAVIGATION AND POLLUTION PREVENTION  | 185   |
| A.W. Dakkak: Role of Weather Data in Safe Operations   | 225   |
| in Oil Exploration, Exploitation and Transport   | 227   |

|   |    | Pages |
|---|----|-------|
| H. Hollins: Maritime Traffic Control and Aids to<br>Navigation in the Kuwait Action Plan Region and the<br>Approaches Thereto |    | 233   |
| J. Plenter: Pollution Prevention and Control  |    | 247   |
| J. Deck III: Recent IMO Developments Relating to Marine Safety  |    | 257   |
| J. Wonham: IMO and Its Activities with Particular<br>Reference to the Prevention and Control of Marine<br>Pollution           |    | 269   |
| T.P. Hebden: Pollution in the Shipping Industry - Prevention is Better than Cure  |    | 303   |
| COMBATING OF OIL SPILLAGE   |    | 309   |
| I.C. White and J.A. Nichols: Methods Available for Combating Oil Spillages  | ٠. | 311   |
| P.B. Ryan: Marine Oil Spill Response Capability in the Kuwait Action Plan Region  |    | 327   |
| J.E. Cuddeback and K. Al-Qatari: Aramco Oil Soill<br>Prevention and Response Programme  |    | 339   |
| FUTURE DEVELOPMENTS   |    | 363   |
| W.K.M. Astley: Gulf Area Oil Companies Mutual Aid<br>Organization (GAOCMAO) Current Programme and<br>Future Prospects         |    | 365   |
| K. Wilson: Policies on the Use of Dispersants - the<br>Role of Toxicity Testing Programmes for Oil Dispersant<br>Chemicals    |    | 371   |
| ANNEX: Information about the authors  |    | 389   |

?

## SESSION I: GENERAL OVERVIEW

 Kuwait Action Plan - Overall Concept and Progress Made

A. Al-Zaidan

2. Statistical Analysis of Oil Pollution in the Kuwait Action Plan Region and the Implications of Selected World-Wide Oil Spills to the Region

R. Golob and E. Brus

3. Effects of Oil-Industry Related Pollution on Marine Resources of the Kuwait Action Plan Region

- A. Nelson-Smith
- 4. Biological Impact and Effects on Fisheries of Oil Spill in Bahrain, August-September 1980
- 0. Linden

# KUWAIT ACTION PLAN - OVERALL CONCEPT AND PROGRESS MADE

by A. Al-Zaidan

Regional Organization for the Protection of the Marine Environment, Safat, Kuwait Ministers, distinguished delegates and observers, ladies and gentlemen, it gives me great pleasure to talk to you on the Kuwait Action Plan, its concept and overall progress made.

The Region referred to in the Kuwait Action Plan is a land-locked body of shallow sea-water, 1000 km long and 300 km wide, with coastlines on Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. It is regarded as having one of the most fragile and endangered ecosystems in the world and is deeply affected by severe sources of pollution. The rapid industrialization and urbanization of the States of the Region have drastically changed its socio-economic structure, and it is quite clear that the extensive utilization of the coastal areas for various development activities has adversely affected the marine environment, causing great concern.

The Governing Council of the United Nations Environment Programme, at its third session held in 1975, recognized this as a concentration area in which UNEP, in close collaboration with other relevant agencies of the United Nations system, would attempt to fulfil its catalytic role in assisting States of the Region to develop and implement, in a consistent manner, an Action Plan commonly agreed upon.

The Kuwait Regional Convention for Co-operation on the Protection of the Marine Environment from Pollution, referred to as the KUWAIT ACTION PLAN, entered into force on 30 June 1979 and was a result of serious and hard efforts recognized by the Governments concerned and the United Nations bodies, to make such interim arrangements as might be required until the establishment of the Regional Organization for the Protection of the Marine Environment. Thus, the Interim Secretariat was officially inaugurated in Kuwait on 7 July 1980.

The staff consists of an Acting Co-ordinator, a marine scientist (not yet appointed), one economist, an administrative officer and secretarial staff. Prior to the opening of the Interim Secretariat office in Kuwait, the programme had been formulated and administered at the Regional Seas Programme Activity Centre (RS/PAC) of UNEP, in Geneva, under the guidance of Dr. S. Keckes, Director, Dr. R. Helmer, Deputy Director, and Mr. Khamis Al-Nahdi (Saudi Arabia) Acting Co-ordinator, from whom I took over in June of this year. The RS/PAC continues to guide and is available for consultation on all programme matters concerning the Kuwait Action Plan.

In November 1979, forty-six experts from the eight KAP countries met in Kuwait.

预览已结束,完整报告链接和二维码如下:

https://www.yunbaogao.cn/report/index/report?reportId=5 15349

