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# Overview on Land-based Sources and Activities Affecting the Marine Environment in the ROPME Sea Area

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# Preface

The Global Programme of Action for the Protection of the Marine Environment from Land-based Activities was adopted by an intergovernmental conference held in Washington, D.C., United States of America, from 23 October to 3 November 1995. The goal of the Global Programme of Action is to prevent degradation of the marine environment from land-based activities by facilitating the realization of the duty of States to preserve and protect the marine environment. It is designed to assist States in taking actions individually or jointly within their respective policies, priorities and resources, which will lead to the prevention, reduction, control and/or elimination of the degradation of the marine environment, as well as to its recovery from the impacts of land-based activities. Implementation of the Global Programme of Action will contribute to maintaining and, where appropriate, restoring the productive capacity and biodiversity of the marine environment, ensuring the protection of human health, as well as promoting the conservation and sustainable use of aquatic living resources.

The Washington Conference designated the United Nations Environment Programme (UNEP) as secretariat of the Global Programme of Action and requested that, as coordinator and catalyst of environmental activities within the United Nations system and beyond, it should, through its programmes and secretariat role:

- Promote and facilitate implementation of the Programme of Action at the national level;
- Promote and facilitate implementation at the regional, including subregional, level through, in particular, a revitalization of the regional seas programme; and
- Play a catalytic role in the implementation at the international level with other organizations and institutions.

Under the direct supervision of the Coordination Office for the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities and the Regional Office for West Asia (ROWA), and in close coordination with the Regional Organization for the Protection of the Marine Environment (ROPME), a consultant was asked to prepare a comprehensive overview of land-based sources and activities affecting the marine, coastal and associated freshwater environments, including the status of activities dealing with the protection of those environments from land-based activities in the Kuwait Action Plan region, based on a review of the relevant information and activities of the individual countries making up the region. This regional overview included the identification of priorities and the formulation of recommendations for addressing the problems arising from land-based activities. It will also be the basis for formulating a regional strategic programme to address land-based activities.

The overview was considered by government-designated experts during the regional workshop on implementation of the Global Programme of Action in the Red Sea and Gulf of Aden/Kuwait Action Plan regions, held in Bahrain from 2 to 5 December 1996.

Based on the topics outlined in paragraphs 16-35 of the Global Programme of Action, the overview included (when possible) for each country and the region as a whole, available information related to:

- Identification and assessment of problems;

- Establishment of priorities;
- Setting management objectives for priority problems;
- Identification, evaluation and selection of strategies and measures, including management approaches;
- Criteria for evaluating the effectiveness of strategies and programmes; and
- Programme support elements.

In preparing the overview, the consultant made full use of existing relevant information, and consulted with the relevant regional and national authorities and experts. To facilitate the work, the consultant has:

- Visited the ROPME to review relevant information and consult with substantive programme officers;
- Established communication with national experts from the region, soliciting their input to the overview;
- Visited UNEP (Water Branch) headquarters in Nairobi to obtain information on land-based activities affecting the marine environment of other regions and contact the relevant programme officers.

## **PREPARATION OF THE OVERVIEW**

The overview was prepared on the basis of information obtained from various resources, including: documents provided by the UNEP Coordination Office for the Global Programme of Action; the UNEP Regional Office for West Asia (ROWA); ROWA Library, Bahrain; the ROPME staff and library, Kuwait; reports provided during the first and second workshops on the implementation of a Global Plan of Action in the ROPME region (Kuwait, December 1995 and Bahrain, December 1996); the UNEP library, Nairobi; computer search at Sultan Qaboos University Library, Oman; numerous papers and reports provided by individual scientists; Middle East Environment, Bahrain, and, finally, the personal library of the consultant.

Information was organized by individual member States and the ROPME region. No attempts were made to compare data from different areas of the ROPME region as data were collected at different times and were inconsistent. The data and information obtained were critically assessed and, whenever possible, cross-checked to help identify areas for which data are lacking.

The consultant reviewed the general objectives (paras. 18-35) and implications of the Global Programme of Action. Possible elements of regional framework strategies were identified based on the recommended approaches by source category (chapter V) of the Global Programme of Action. Requirements for the development and implementation of national action programmes were considered based on available information. Data and information on land-based activities in the ROPME region were then considered within the framework of programme objectives and recommended approaches by source category.

The overview was then organized under the following chapters: Introduction; Characteristics of the ROPME sea area; Country-by-country analysis of land-based pollution sources (Bahrain, Iraq, Islamic Republic of Iran,

Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates); Overall assessment of all countries; and Regional analysis of land-based pollution sources.

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