



REGIONAL SEAS

Overview of the Coastal and Marine Environment and Environmental Problems in the Northwest Pacific Region

UNEP Regional Seas Reports and Studies No. 158

PREFACE

The first regionally coordinated investigation into marine pollution began in 1967 when the International Council for the Exploration of the Sea (ICES) set up a working group to assemble data on substances which might be discharged into the North Sea and which might be harmful to fisheries interests. While this and other scientific studies were being undertaken, political moves were under way to promote regional cooperation in the control of pollution in the Northeast Atlantic. Following the wreck of the *Torrey Canyon* in 1967, the coastal states of the North Sea adopted the Agreement for Cooperation in Dealing with Pollution of the North Sea by Oil in 1969 (the Bonn Convention). The basic concept of this agreement has been used subsequently in the drafting of similar regional agreements such as the Helsinki Convention for the Baltic Sea, and the Oslo and Paris Conventions for the Northeast Atlantic and the North Sea.

The common ingredients for these regional approaches were: a commitment to work together and cooperate towards common regional goals and objectives; mutual obligations accepted by accession to a regional convention; a policy/decision-making body; an agreed plan of action; a coordinating centre; and, shared funding of agreed activities. The same prescription was adopted for the UNEP Regional Seas Programme which had its beginnings at the UN Stockholm Conference on the Human Environment in June 1972 when the General Principles for Assessment and Control of Marine Pollution were adopted. Subsequently, the UNEP Governing Council chose "Oceans" as one of the priority areas on which it would focus efforts to fulfill its catalytic and coordinating role, and endorsed the following elements as part of the general strategy which its Oceans and Coastal Areas Programme Activity Centre (OCA/PAC) was to adopt for its "Oceans" work:

- Assessment of the state, sources and trends of marine pollution and its effect on human health, marine ecosystems, resources and amenities
- Coordination of, and support for, environmental management efforts in the protection, development and exploitation of marine and coastal area resources
- Assistance to interested governments in the implementation of existing conventions, and the promotion of new international and regional conventions, guidelines, and actions to control marine pollution and protect and manage marine and coastal area resources
- Education and training efforts to enhance the participation of developing countries in the protection, development and management of marine and coastal area resources
- Exchange of information on the protection, development and management of marine and coastal area resources.

The Third UN Inter-Agency Meeting on Regional Seas in 1981 adopted a set of guidelines and principles for the preparation and implementation of comprehensive action plans for the protection and development of marine and coastal areas of regional seas. These guidelines formally adopted the approach that was being successfully applied in the case of the Baltic, the North Sea and the Mediterranean.

More recently, the United Nations Conference on Environment and Development (UNCED) (Rio de Janeiro, June 1992), confirmed the important role of UNEP and endorsed its focus on the coastal and marine environment. Among the priority areas identified by participating States at

UNCED for UNEP to concentrate on, the following are especially relevant to the Regional Seas Programme:

- promoting international cooperation in the field of environment and recommending, as appropriate, policies to this end
- coordination and promotion of relevant scientific research with a view to providing a consolidated basis for decision-making
- further development of international environmental law, in particular conventions and guidelines, promotion of its implementation and coordinating functions arising from an increasing number of international legal agreements, *inter alia*, the functioning of the secretariats of the Conventions, taking into account the need for the most efficient use of resources, including possible co-location of secretariats established in the future
- promotion of sub-regional and regional cooperation and support to relevant initiatives and programmes for environmental protection including playing a major contributing and coordinating role in the regional mechanisms in the field of environment identified for the follow-up to UNCED
- supporting Governments, upon request, and development agencies and organs in the integration of environmental aspects into their development policies and programmes, in particular through the provision of environmental, technical and policy advice during programme formulation and implementation.

Following UNCED, UNEP's OCA/PAC reviewed its strategies, structure and performance, in the light of the agreements embodied in Agenda 21, and instigated changes to enable it to better reflect the collective sentiments expressed by participating States at Rio de Janeiro. As a result, OCA/PAC has confirmed policies which:

- give prominence to its Regional Seas Programme (assigning to it a higher priority than its global or other activities)
- promote a holistic and integrated approach to its activities in the coastal and marine environment (i.e. a multi-functional and cross-sectoral approach in preference to addressing discrete problem areas in isolation)
- address the entire zone which straddles the land-water interface (i.e. as far inland as is expected to influence the coast, and as far out to sea as information exists)
- advocate for integrated coastal area planning (through a process which is pre-emptive, predictive and precautionary)
- advocate for integrated coastal area management (i.e. an approach on a broad front which combines protection, restoration, conservation and sustainable use).

CONTENTS

PREFACE	(i)
1 INTRODUCTION	1
1.1 The UNEP Regional Seas Programme	1
1.2 The Northwest Pacific Action Plan	2
1.3 Aims of this Overview	2
1.4 Geographical coverage	3
2 ENVIRONMENTAL CHARACTERISTICS	5
2.1 The surrounding land	5
2.2 Climate	5
2.3 Oceanography	6
2.4 Ecology	10
3 SOCIAL AND ECONOMIC ASPECTS	15
3.1 Population	15
3.2 Commerce and navigation	15
3.3 Industrial development	19
3.4 Mining including petroleum	20
3.5 Fisheries resources	20
3.6 Tourism and recreation	21
4 ENVIRONMENTAL PROBLEMS	22
4.1 Water pollution	22
4.1.1 Sources	22
4.1.2 Nutrients	22
4.1.3 Heavy metals	23
4.1.4 Oil	23
4.1.5 Radionuclides	23
4.2 Coastal alterations	24
4.3 Effects on ecological resources	24
4.4 Effects on human health	25
5 REMEDIAL MEASURES	26
5.1 Measures already adopted	26
5.2 Further measures	28
5.2.1 Assessment of the environmental condition	32
5.2.2 Efficient and effective information base	34
5.2.3 Risk management and pollution emergencies	35
5.2.4 Regional legal frameworks	36
5.2.5 Integrated coastal area planning	36
5.2.6 Integrated coastal area management	37
5.3 Collaborative and cooperative framework	37
6 CONCLUSIONS AND RECOMMENDATIONS	40
7 REFERENCES	43

1 INTRODUCTION

1.1 The UNEP Regional Seas Programme

The UNEP Regional Seas Programme was initiated in 1974 as a global programme implemented through regional components. It has been repeatedly endorsed by the UNEP Governing Council as a regional approach to the control of marine pollution and the management of marine and coastal resources. 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 integrated management of coastal and marine areas. The Regional Seas Programme at present comprises 12 regions, in all stages of maturity, and a further region is being developed.¹ There are over 140 coastal States and Territories participating in the Programme.

The fulcrum for each regional programme is the Action Plan. All action plans are structured in a similar manner and designed to link assessment of the quality of the marine environment with the causes of its deterioration, leading to activities designed for the rehabilitation and improvement in the short term and comprehensive protection and management for sustainable development in the longer term. Action Plans usually include the following elements:

- Environmental assessment which comprises baseline studies, research and monitoring of the quality of the marine environment and the factors that may influence it. It is not to be confused with the Environmental Impact Assessment (EIA) process
- Environmental management which includes cooperative training in assessment methodologies, ecosystem management, control of industrial, agricultural and domestic wastes, and the formulation of contingency plans for dealing with pollution emergencies
- Environmental legislation which seeks legal commitments in the form of conventions, protocols and similar instruments on a regional basis and their ratification and implementation at the national level
- Institutional arrangements to provide a policy-making body for setting objectives, reviewing progress and approving activities and budgets as well as to provide a secretariat to coordinate activities
- Financial arrangements through which UNEP often provides "seed finance" until the participating governments are able to assume full responsibility for the budgetary requirements, at which stage UNEP usually assumes responsibility for administering trust funds that are set up.

The initial Goals and Objectives adopted by the various regions do have a common thread. However, there is sufficient flexibility in the system to allow for particular emphases and priorities as perceived by the States concerned. While Action Plans are fashioned in a similar mould for all regions, the priorities differ from region to region. There could even be differences within the same region over time, through the consolidation of some objectives and the weakening of others.

The key to the success of any Regional Action Plan is a common understanding and a mutual commitment by the participating States to act collectively or individually towards common regional goals. This commitment is usually in the form of legally binding conventions and protocols.

¹ Mediterranean, Kuwait Action Plan Region, West and Central Africa, Wider Caribbean, Red Sea and Gulf of Aden, East Asian Seas, Southeast Pacific, South Pacific (SPREP), Eastern Africa, South Asian Seas, the Black Sea and the Northwest Pacific itself. The Southwest Atlantic is being developed and extending the Regional Seas Programme to polar waters is being explored.

1.2 The Northwest Pacific Action Plan

At the UNEP-sponsored symposium "Regional Cooperation on Environmental Protection of the Marine and Coastal Areas of the Pacific" held in conjunction with the XVI Pacific Science Congress, Seoul, August 1987, Dr. Tolba, then UNEP Executive Director, lauded the member States belonging to the East Asian Seas, Southeast Pacific, and the South Pacific regional seas programmes, for the scope of their agreements and the achievements they had to their credit. At the same time, he lamented the absence of the Northwest Pacific from the *"fold of regional environmental cooperation"*. Dr. Tolba also expressed the opinion that political differences in the region should not be a great obstacle since similar differences had been overcome elsewhere, for example, in the Mediterranean.

Dr. Tolba was to be proven right before too long. By its Decision 15/1 of May 1989, the Governing Council of UNEP called for the development of an action plan for the protection and development of the coastal and marine environment of the Northwest Pacific Region comprising the Russian Federation, the People's Republic of China, the Democratic People's Republic of Korea, the Republic of Korea, and Japan.

As a first step in this process, UNEP initiated a series of consultations with representatives of the Governments of the region and with other organizations within the UN system. This culminated in the First Meeting of Experts and National Focal Points on the Development of the Northwest Pacific Action Plan, which was held in Vladivostok from 28 to 31 October 1991 in cooperation with the Centre for International Projects and the Pacific Oceanological Institute.

Experts and National Focal Points presented reports on aspects of the marine environment in their region. This was followed by the preparation of National Reports which reviewed the state of the marine environment and coastal areas within the country, commented on national policies, measures and relevant activities dealing with marine pollution problems, made proposals on ways and means for solving environmental problems, and finally proposed activities for the Action Plan.

At the Second Meeting of Experts and National Focal Points on the Development of the Northwest Pacific Action Plan, held in Beijing from 26 to 30 October 1992 in cooperation with the National Environment Protection Agency (NEPA), a Draft Regional Overview based on the country reports was discussed. The Draft Overview was revised in the light of comments received from National Focal Points and adopted for publication at the Third Meeting of Experts and National Focal Points on the Development of the Northwest Pacific Action plan, held in Bangkok from 25-29 October 1993 with the support of the UNEP Regional Coordinating Unit for the East Asian Seas Action Plan.

1.3 Aims of this Overview

This Overview is intended to provide the background for the Action Plan for the Protection and Development of the Marine Environment in the Northwest Pacific Region. The Action Plan will be based primarily on the principles and guidelines that have existed since the Stockholm Conference, which have been endorsed by the UNEP Governing Council, and which have served the existing 11 Regional Seas Programmes well. However, these principles and guidelines are augmented somewhat and reinterpreted as a result of the UNCED declarations. This "updating" does not entail any fundamental changes in principle, but it reflects a shift away from a narrow, sectoral approach which addressed single problems in isolation, in favour of a broad, integrated approach which still addresses the same problems, but it does so in relation to other activities and responsibilities in the coastal zone. In addition, while this new approach does not question the importance of assessment, measuring and monitoring, it recognizes these activities as only a means to an end, and gives higher priority to the application of solutions to problems rather than merely identifying them. This Overview therefore depicts the regional situation and, having identified problem areas, proposes possible solutions.

The Overview was prepared by UNEP Oceans and Coastal Areas Programme Activity Centre (OCA/PAC) as requested by the meetings of Experts and National Focal Points for the Northwest Pacific Action Plan at Vladivostok and Beijing. It is based primarily on the national reports prepared by each of the National Focal Points.

1.4 Geographic coverage

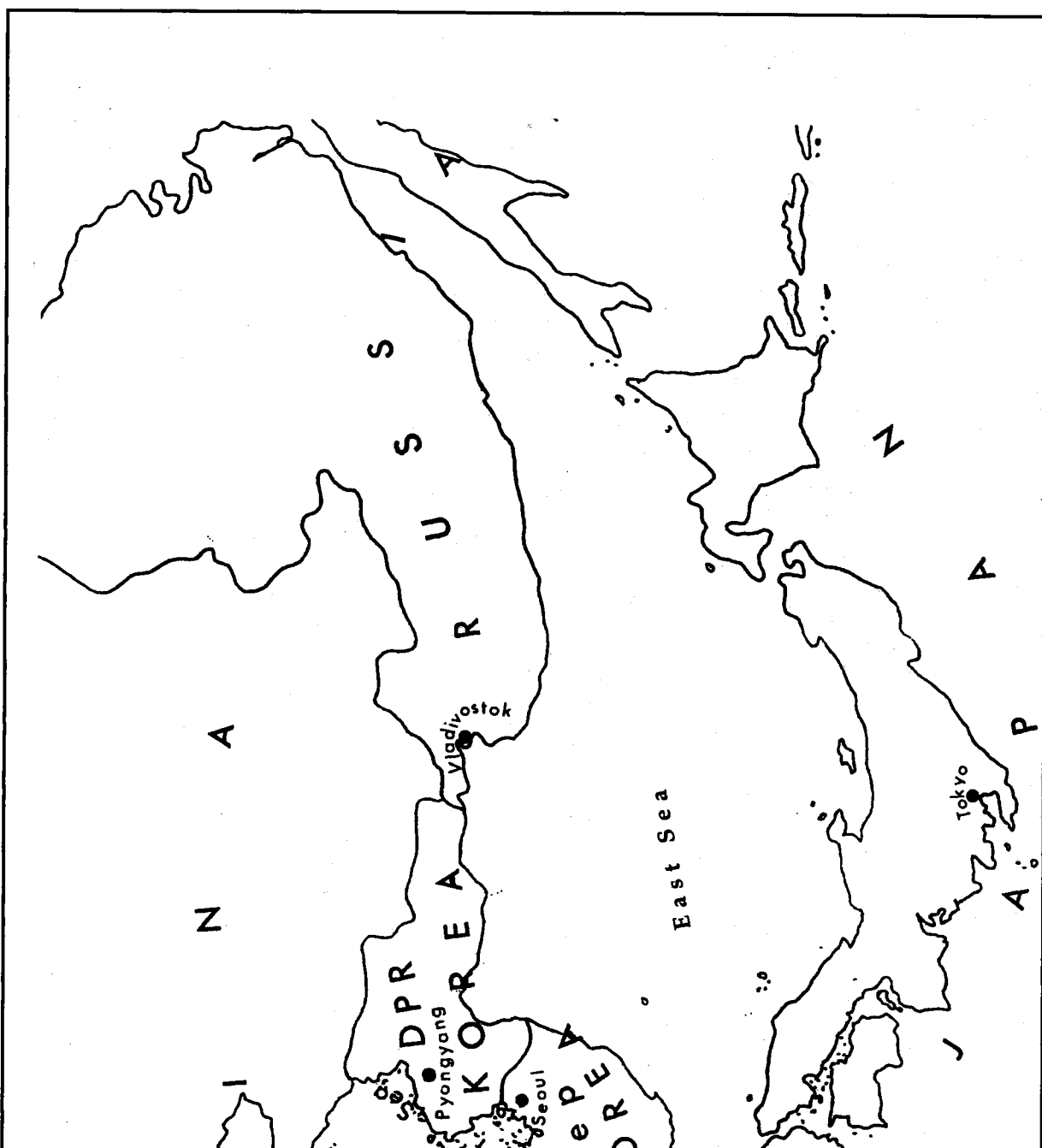
The geographic scope within which the Action Plan is to be applied, at least initially, was agreed at the Vladivostok meeting as the *"marine environment and the coastal areas of the East Sea and the Yellow Sea, which are generally considered as the area north of the line between the mouth of the Chang Jiang River and Cheju-do Island, without prejudice to its possible future extension to cover additional marine environment and coastal areas of the participating countries as may be determined at a later stage"*. This scope was endorsed at the Beijing meeting.

The Northwest Pacific Region is, therefore, bounded on the west by the Asian mainland and on the east by the Japanese islands and Sakhalin Island, and divided by the Korean peninsula. It is bordered by the Russian Federation, the People's Republic of China, the Democratic People's Republic of Korea, the Republic of Korea, and Japan (see Figure 1).

The region is clearly divided into two hydrographic zones - the Yellow Sea and the East Sea. The limits of the East Sea are easily understood since they are surrounded almost completely by land. On the other hand, the Yellow Sea is contiguous to the south with the East China Sea and this Overview, based as it is on broad environmental characteristics, has not drawn a strict southern boundary.

The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of UNEP concerning the legal status of any State, Territory, city or area or its authorities, or concerning the delimitation of their frontiers or boundaries.

Concern has been expressed regarding the terminology for some areas of sea and other natural features in the region which are known differently in the different countries. In this Overview, references to these areas and features are kept to a minimum. Where it is unavoidable to name them, the terminology used does not imply the expression of any opinion whatsoever on the part of the author or of UNEP, and neither does it prejudice any further discussions or negotiations which might be undertaken in an effort to reach consensus on the terminology.



1. The Northwest Pacific Action Plan (NOWPAP) Region

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_12825

