

chapter

1

# Introduction

## 1.1 Aim and scope

Assessments of the quality of the marine environment provide a basis for protecting marine and coastal areas. They provide an opportunity to gather together and assess the results of scientific research and monitoring as well as information on the many human activities that can, directly or indirectly, change or damage the natural attributes of the marine environment. In combination, this information can be used to evaluate the causes and implications of change and to identify impacts that require early attention by policy-makers and environmental managers. Assessments are also used to review the effectiveness of existing measures to prevent degradation of the marine environment, to protect species and communities and, when practicable, to restore previously damaged habitats and ecosystems.

The value of environmental assessments depends to a large extent on the availability of reliable and up-to-date information. Thus it is essential that monitoring and other systems of recording marine environmental information are both ongoing and designed to yield high-quality data amenable to interpretation. In this context, assessments provide a means of reviewing the performance of monitoring programmes and of identifying important gaps in knowledge.

This report presents an assessment of environmental conditions in that part of the Maritime area which, for assessment purposes, is known as the Bay of Biscay and Iberian Coast or Region IV (*Figure 1.1*). This area extends

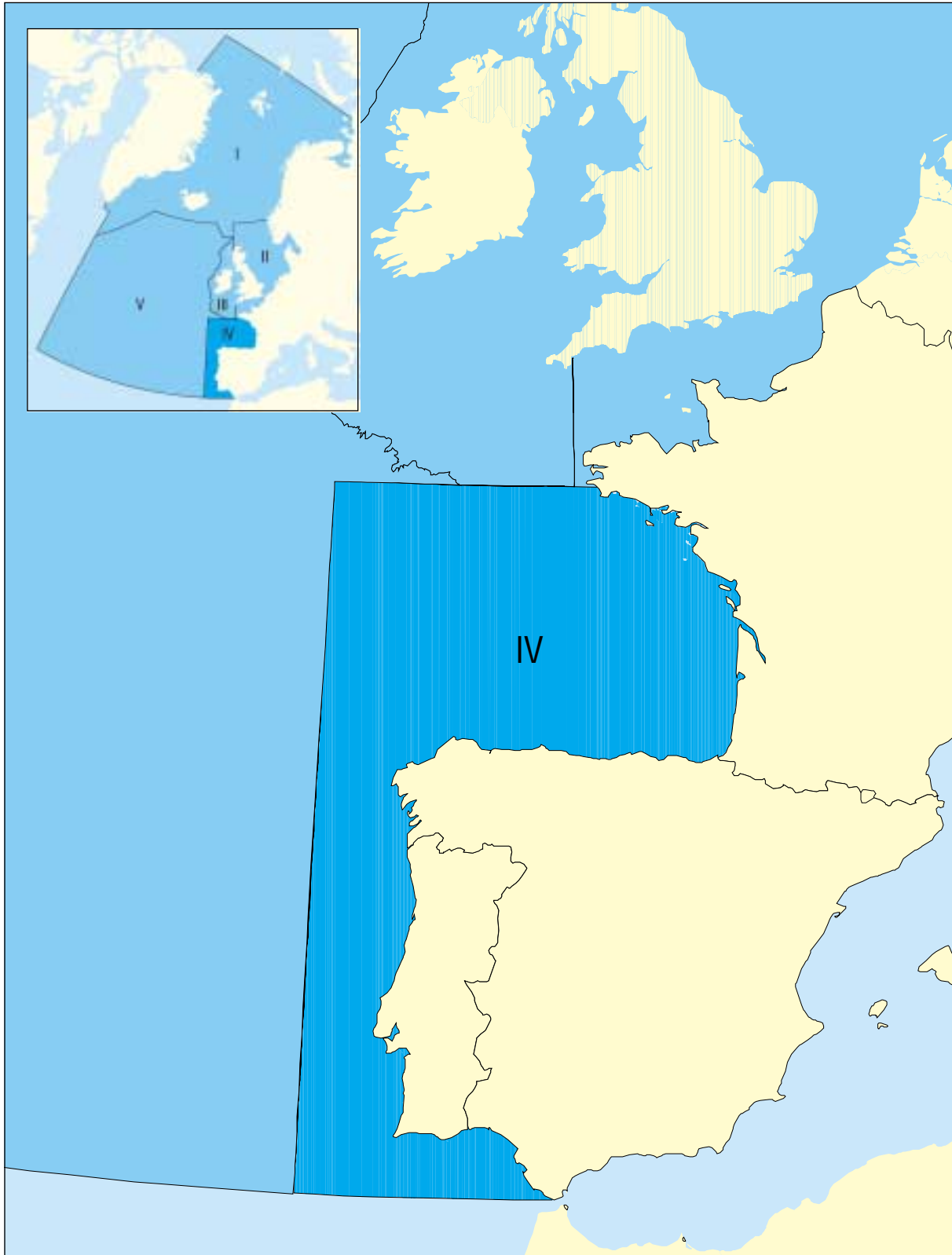
from 48° N to 36° N, and from 11° W to the coastlines of France, Portugal and Spain. Together with similar quality status reports for the other four OSPAR regions, this report forms the basis of a holistic and integrated summary of the quality status of the entire OSPAR Maritime area.

The report describes the physical, chemical and biological characteristics of the coastal and marine ecosystems and examines the impact of human activities, evaluating the information available. The information used in the report was compiled initially by scientists based in government and university laboratories in France, Portugal and Spain; information on human activities was provided by the respective administrations. Inevitably, the amount of information available for each topic differed considerably.

## 1.2 The assessment process

The assessment is based upon the most recent information available from national and international sources, including OSPAR committees and specialist working groups, the International Council for the Exploration of the Sea (ICES), published reports and the scientific literature. Although most of the information relates to the 1990s, some topics required the use of earlier data, either because the recent record was sparse or because trend analysis involved a consideration of historical conditions. While every effort has been made to ensure the comparability of data from different times and locations,

Figure 1.1 Region IV and the other regions of the OSPAR maritime area.



methodologies may have differed considerably and thus some comparisons will, inevitably, be tenuous. Where such uncertainties exist, they are indicated in the text.

### 1.3 Guidance to the reader

Chapter two gives a concise description of the physical geography, hydrography and climate of the area, as these have an important bearing on the types and distributions of marine habitats and communities as well as on their sensitivity to environmental change. Chapter three examines human activities that directly or indirectly impinge on marine areas, their amenities and resources, identifying localities most affected and assessing any apparent trends. The next two chapters summarise infor-

mation on the chemical and biological features of the various coastal and offshore ecosystems, focusing in particular on the causes and implications of the changes that are occurring to their natural characteristics. Finally, Chapter six draws on the preceding chapters to identify the major causes of environmental degradation within the area and, where appropriate, makes recommendations for managerial and scientific actions needed to redress them.

Each chapter is accompanied by a list of references to the major sources of information. The terminology used has been kept as non-technical as possible, but where scientific and other terms have had to be used their meanings have been defined in a glossary of terms. The Latin names of the organisms referred to in the text are listed in an appendix, together with their common names in English, French, Portuguese and Spanish.