



UNITED NATIONS ENVIRONMENT PROGRAMME

*Contingency planning for emergencies
associated with industrial installations
in the West and Central African region*

UNEP Regional Seas Reports and Studies No. 54

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PREFACE

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^{1/} 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.

By Decision 88(V.)C of 25 May 1977, the Governing Council of UNEP requested the Executive Director to initiate the development of an action plan for the West and Central African Region.

After a preparatory process, which included a number of expert meetings, fact finding missions and in-depth studies on resources and environmental problems of the region, the Conference of Plenipotentiaries on Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan, 16-23 March 1981) adopted:

- the Action Plan for the Protection and Development of the Marine Environment and Coastal Areas of the West and Central African Region;
- the Convention for the Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region; and
- the Protocol Concerning Co-operation in Combating Pollution in Cases of Emergency.

The Governments of the region also established a trust fund to support the activities called for in the Action Plan. UNEP was designated as the secretariat of the Action Plan and the Convention.

^{1/} 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, Eastern African Region, South-West Atlantic Region and South Asian Region.

This document was prepared as a contribution to the development of the Action Plan for the West and Central African Region. Its main objective is to provide the Governments of the Region with appropriate guidelines for the preparation of national and plant contingency plans for industrial accidents. Two UNIDO consultants carried out field missions to Liberia and Senegal in order to collect relevant information on the current state of preparedness and intervention capability in case of major industrial accidents in these two countries.

A regional industrial risk assessment for the WACAF region was also carried out in order to determine the zones in the region most exposed to the risk of industrial accidents.

CONSULTANTS

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SUMMARY

Guidelines for the preparation of national and plant level contingency plans for industrial accidents in the WACAF region have been prepared. A generalized procedure for conducting an industrial hazard analysis is presented.

Information on the current state of preparedness and intervention capability in case of major industrial accidents was collected during field missions to Liberia and Senegal.

A regional industrial risk assessment for the WACAF region has been carried out based on calculation of relative a) fire and explosion risk, and b) environmental risk for the major industrial sectors and the five geographical zones which make up the region.

CONCLUSIONS

1. Contingency plans for industrial emergencies can be prepared at four different levels: national, provincial, municipal and plant. The first three are responsibilities of the government or governmental agencies and organizations; the last should be developed by industry.
2. A hazard analysis is the first step in the planning process. It consists of identifying potential hazards, vulnerable points and risks associated with those hazards. Checklists and safety audits are the most important methods for hazard identification in industrial plants.
3. The identification of resources (such as equipment, people and agencies) is the second step in the planning process. Functions and responsibilities of different persons or groups should also be identified.
4. The definition of the authorities in charge of an emergency, the chain of command, and the procedure defining the shift of authority to higher levels as the accident escalates are vital elements in any plan, and especially in national contingency plans.
5. A system of contingency plans developed by industry at the individual plant

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