MEDITERRANEAN ACTION PLAN

Consultation Meeting on the Preparation of the Monitoring Programme of Izmir Bay

Athens, 2-3 July 1990

REPORT

UNEP
Athens, 1990
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1. During the Joint Meeting of the Scientific and Technical Committee and the Socio-Economic Committee (Athens, 28 May-1 June 1990) consultations were held between Turkish representatives (Ms. S. Acar and Dr. T. Balkas), PAP Regional Activity Centre officials (Mr. A. Pavisovic and Mr. I. Trumbic), and Mediterranean Co-ordinating Unit officers (Dr. L. Jeftic, Dr. G. Gabrielides, and Dr. L. Saliba) on the monitoring programme in the framework of the Izmir Coastal Zone management project. Concluding the consultations, a number of questions were still left unanswered, and it was felt necessary to organize a meeting with Turkish scientists, who designed the monitoring programme and who would be in charge of its implementation, to agree on the detailed programme.

2. Further to the invitation of the Director of the Co-ordinating Unit, the Consultation meeting was organized and held on 2 July in Hotel Ilisia and on 3 July 1990 at the premises of the Co-ordinating Unit for the Mediterranean Action Plan of UNEP.

3. The meeting was chaired by Dr. L. Jeftic, Senior Marine Scientist in the Co-ordination Unit. The list of participants is presented in Annex I.

4. After the introductory remarks by Dr Jeftic and Prof. Balkas, the participants discussed in detail the proposed "Izmir Bay monitoring programme" and agreed on its following elements:

4.1. OBJECTIVES

The objectives of the Monitoring programme of Izmir Bay are:

(a) To assess the present situation of the Izmir Bay marine environment;

(b) To establish differences in concentration of selected contaminants between the three entities of the Izmir Bay (inner, middle and outer);

(c) To establish of concentration gradients for selected pollutants from sources outwards;

(d) To determine compliance with National legislation and/or common measures adopted by the Contracting Parties to the Barcelona Convention;

(e) To create background data for the assessment of the effectiveness of pollution control measures to be taken;

(f) To provide input to other components of this project.

4.2. The following output should be added to the existing ones:

- Input to the implementation of the Genoa Declaration.
4.3. The detailed programme of work was agreed upon as presented in Annex II (Tables 1-3 and Fig. 1).

4.4. The importance of Data Quality assurance (intercalibration, maintenance of instruments, training, joint sampling and measurements, reference methods, etc.) was stressed and both the Turkish side and the Mediterranean Co-ordinating Unit (in cooperation with other UN Agencies) would make all efforts to ensure high quality data.

5. It was felt that additional requirements for oceanographic measurements for other components of the Coastal Area Management Programme for the Bay of Izmir (Study of the assimilative capacity of the Izmir Bay, Study of the recovery of the Inner Bay of Izmir and EIA of the submarine outfalls) should be prepared by the Turkish authorities in cooperation with the PAP/RAC and discussed with experts and authorities responsible for the monitoring programme in order to formulate a programme of additional measurements.

6. The meeting stressed the importance of the timely preparation of the Survey of the Land-Based Sources of pollution (MED POL X bis).

7. The report of the meeting was adopted and the meeting was closed by the chairman at 4 p.m. on 3 July 1990.
ANNEX I

LIST OF PARTICIPANTS

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ANNEX II

MONITORING PROGRAMME

Table 1  Source Stations-Effluents (locations are given in Fig. 1)

<table>
<thead>
<tr>
<th>Sampling Station</th>
<th>Depth (m)</th>
<th>Matrix</th>
<th>Parameters</th>
<th>Sampling Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td></td>
<td>Effluent</td>
<td>pH, TS, P&lt;sub&gt;tot&lt;/sub&gt;, PO&lt;sub&gt;4&lt;/sub&gt;, N&lt;sub&gt;tot&lt;/sub&gt;, BOD, COD</td>
<td>Seasonal average (one daily every season)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Heavy metals&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Halogenated</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hydrocarbons&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rate of flow</td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup> To be selected among Hg, Cd, Pb, Cr depending on the source

<sup>2</sup> DDT and PCB - in first two sampling seasons and will continue at stations with increased levels
### Table 2  Hot spot Stations (locations are given in Fig. 1)

<table>
<thead>
<tr>
<th>Sampling Station</th>
<th>Depth (m)</th>
<th>Matrix</th>
<th>Parameters</th>
<th>Sampling Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-18</td>
<td>Surface and bottom</td>
<td>SW</td>
<td>Temp, S, Turb, TSS, DO, NO₃, NO₂, NH₄, Ptot, PO₄, pH, chlorophyll¹, phytoplankton¹, zooplankton¹</td>
<td>Seasonal (May-Sept. monthly)</td>
</tr>
<tr>
<td>11-18</td>
<td>0-20 cm</td>
<td>SW</td>
<td>FC, FS</td>
<td>Seasonal (May-Sept. twice/month)</td>
</tr>
<tr>
<td>11-18</td>
<td>Bottom (M. gallo-provincialis)</td>
<td>Biota</td>
<td>HH, Hg, Cd, Pb, Cr</td>
<td>Seasonal</td>
</tr>
<tr>
<td>11-18</td>
<td>SD</td>
<td></td>
<td>HH, TOC, Hg, Cd, Pb, Cr</td>
<td>Twice a year (April, Oct.)</td>
</tr>
</tbody>
</table>

¹ only at surface
Table 3  Coastal Stations (locations are given in Fig. 1)

<table>
<thead>
<tr>
<th>Sampling Station</th>
<th>Depth (m)</th>
<th>Matrix</th>
<th>Parameters</th>
<th>Sampling Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-34</td>
<td>Standard</td>
<td>SW</td>
<td>Temp, S, Turb, TSS, DO, NO₃, NO₂, NH₄, Ptot, PO₄, pH</td>
<td>Seasonal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(May-Sept. monthly)</td>
</tr>
<tr>
<td>19-21, 22-25, 26, 27, 32-34</td>
<td>Two depths</td>
<td>SW</td>
<td>Chlorophyll, phytoplankton, zooplankton</td>
<td>Seasonal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(May-Sept. monthly)</td>
</tr>
<tr>
<td>21a, 22-34</td>
<td>0 -20 cm</td>
<td>SW</td>
<td>FC, FS</td>
<td>Seasonal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(May-Sept. twice/month)</td>
</tr>
<tr>
<td>22, 27, 34</td>
<td>Bottom</td>
<td>Biota</td>
<td>HH, Hg, Cd, Pb, Cr</td>
<td>Twice a year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(M. galopontialis)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22-34</td>
<td>Bottom</td>
<td>SD</td>
<td>HH, TOC, Hg, Cd, Pb, Cr</td>
<td>Twice a year</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19-21, 24, 25, 29</td>
<td>Up to three depths</td>
<td>SW</td>
<td>Current (speed and direction), S, DO, Temp</td>
<td>Continuous</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(moored stations)</td>
</tr>
</tbody>
</table>