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Ad Hoc Meeting for the Preparation of the
Annex IV of Land-Based Sources Protocol
to the Barcelona Convention

Athens, 19-21 December 1988

REPORT OF THE AD HOC MEETING FOR THE PREPARATION
OF THE ANNEX IV OF LAND-BASED SOURCES PROTOCOL
TO THE BARCELONA CONVENTION

In co-operation with

WMO

A. Introduction

1. The Meeting was held in Athens from 19-21 December 1988 at the offices of the Co-ordinating Unit for the Mediterranean Action Plan (MEDU).

2. The Meeting was opened by Mr A. Manos (Co-ordinator of the Mediterranean Action Plan) who, in welcoming the participants, recalled that their task was to assist WMO and MEDU to define the conditions under which the LBS Protocol could be applied to harmful substances transported to the Mediterranean Sea Area through the atmosphere in accordance with Article 4.1(b) of the LBS Protocol, to specify the elements for inclusion in an additional annex to the Protocol on this matter, and to prepare an outline of instructions for the drafting of such an additional annex.

3. Mr L. Jeftic (Senior Marine Scientist in MEDU) described to participants the history and organisation of, and current activities under, the Barcelona Convention and the Mediterranean Action Plan.

4. Mr A. Soudine (Scientific Officer in WMO) informed participants of the monitoring and modelling programme prepared and proposed by the WMO/UNEP Workshop on Airborne Pollution of the Mediterranean Sea, held in Belgrade from 10-13 November 1987, the content of which was endorsed at the first meeting of the Scientific and Technical Committee of the Mediterranean Action Plan, held in Athens from 23-27 May 1988. He further drew attention to the work of a GESAMP Working Group aimed at assessing the atmospheric input of trace substances to the world's oceans and to specific regions, started at a meeting in Rhode Island, USA in October 1988.

B. Representation at the Meeting

5. The Meeting was attended by invited experts in the fields of air pollution measurement, monitoring, management and legislation, as well as by representatives from WMO and MEDU. A list of the participants is set out in Annex I.

C. Election of Officers

6. The Meeting appointed the following officers:

Chairman	: Mr A. Estlander (Finland)
Rapporteur	: Mr P.J. Széll (United Kingdom)
Technical Secretary	: Mr A. Soudine (WMO)

D. Discussion

7. The Meeting agreed to use as its working document a draft text prepared by the Chairman setting out possible elements for inclusion in an additional annex. In the course of discussion, the participants made reference, as appropriate, to the experiences of, and ongoing activities within, other relevant international conventions, in particular the Helsinki Convention and the Paris LBS Convention.

8. The Meeting noted that Article 4.1(b) of the LBS Protocol indicated that all Annex I and Annex II substances were potentially subject to the full range of measures in the Protocol, but that in applying those measures to airborne pollution, the Contracting Parties might - contrary to the case of e.g. discharges to watercourses - apply them subject to "conditions" (or qualifications). After a lengthy debate, the Meeting concluded there was one key "condition" for the triggering of control actions. This was that airborne deposition of a substance in the Mediterranean Sea Area must demonstrate a high probability of harmful environmental effects. Certain other "conditions" were identified, but upon analysis the Meeting found either that they related directly to the key "condition" (e.g. that effects of airborne substances should be assessed relatively to the adverse environmental consequences of the same substances reaching the Mediterranean Sea Area by other means), or were merely facets of it.

9. The Meeting emphasised the need for scientific substantiation of the probability of harmful effects before control measures were taken with regard to a given airborne substance. Such substantiation should be in accordance with the monitoring, research and co-operation procedures already provided for within the Convention and LBS Protocol.

10. It was envisaged by the Meeting that specific control measures on individual substances taken in consequence of the additional annex, would be in the form of programmes or measures under Article 5 or, as the case may be, Article 6 (read together with Article 15) of the LBS Protocol. The additional annex itself should be a broadly-based platform for future action. It was important not to draft it in terms that were too precise and limitative, since the consequence of doing so would very likely be that the Contracting Parties would constantly have to amend it before being able to take action.

11. Having identified that a substance satisfies the key "condition", the Contracting Parties to the LBS Protocol would have the option of elaborating and implementing programmes or measures either in respect of that substance generally, or in respect of specified sources, or in respect of a mixture of the two.

12. The elements for an additional annex on airborne pollution of the Mediterranean Sea Area are set out in Annex II.

13. During the course of discussion, a number of points considered by the Meeting to be important for the effective and comprehensive control of airborne pollution of the Mediterranean Sea Area, but not appropriate for inclusion in the additional annex, were raised. These points, which relate to action by individual Contracting Parties as well as to action by the Contracting Parties collectively, are set out in Annex III.

E. Recommendation

14. The Meeting noted that the elements for an additional annex on airborne pollution (set out in Annex II) require further elaboration. To this end, it recommended that WMO and MEDU should forthwith either transmit Annex II to a consultant with instructions to prepare a draft additional annex for circulation to the Contracting Parties to the Convention for comment, or circulate Annex II to all Contracting Parties to the Convention, inviting them to comment directly to a nominated consultant by a given date, with a view to him taking the comments into account when drafting an additional annex for consideration at a forthcoming meeting of the Scientific and Technical Committee of the Mediterranean Action Plan.

F. Adoption of the report

15. The Meeting adopted its report on 21 December 1988.

Annex I

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ELEMENTS FOR AN ADDITIONAL ANNEX TO THE LBS POLLUTION PROTOCOL
TO THE BARCELONA CONVENTION

A. Introduction

- Reference to Article 4.1(b) of the Protocol as the basis for action (".... under conditions to be defined in an additional annex") and to Article 17 of the Convention as the procedure to be followed when adopting an additional annex.
- Recall that substances listed in Annexes I and II to the Protocol have been selected mainly on the basis of their toxicity, persistence and bioaccumulation in the marine environment.
- Note the growing awareness in the Mediterranean Sea Area and other regions of the significant contribution to marine pollution of certain harmful substances that reach the sea via the atmosphere.
- Determine to take the steps necessary to identify the "conditions" under which this form of pollution of the Mediterranean Sea Area can occur, and then effectively "prevent, abate, combat and control" such pollution through the elaboration and implementation of programmes and measures in accordance with the procedure laid down in Article 15 of the Protocol (as read with Articles 5 and 6).

B. Objective of the additional Annex

To provide a basis for identifying, in accordance with scientific substantiation, those Annex I and Annex II substances either generally or emitted from specified source categories or source areas, that satisfy the conditions for control action and hence warrant the elaboration and implementation of programmes and measures for their control using, as appropriate, environmentally benign technologies.

C. Scientific substantiation for control action

Within the framework of Article 10 of the Convention, to monitor and evaluate - on the basis of national research programmes - the transport and deposition patterns, taking due account of MED POL's studies on the polluting effects, of Annex I and Annex II substances, and as appropriate other substances, that reach the Mediterranean Sea Area via the atmosphere; to identify the sources and source areas of those substances; to draw up and maintain emission inventories of such substances and sources; and, in conformity with Article 11 of the Convention and Article 9 of the Protocol, to co-ordinate these aspects of the national research programmes with a view to establishing a sound basis for regulation by the Contracting Parties of those substances that cause harm via the atmosphere.

D. Conditions for control action

The essential condition for purposes of Article 4.1(b) of the Protocol is that it can be demonstrated in respect of an individual substance that there is a high probability of harmful effects on the Mediterranean Sea Area from emissions of it to the atmosphere. Related conditions to be considered in this context include:

- (1) quantity of the substance emitted to the atmosphere and the rate of such emission;
- (2) capability of the substance being transported to the Mediterranean Sea Area under prevailing meteorological conditions; and
- (3) input, in terms of environmental impact, of the substance through atmospheric deposition, relative to the quantities of the same substance reaching the Mediterranean Sea Area by other means.

E. Categories to be regulated

When regulating air pollution affecting the Mediterranean Sea Area, the programmes and measures prepared (including, in particular, common emission standards and standards for use) should be structured according to categories of substances or categories of sources, or a combination of these. The categories could be formed as follows:

(1) Categories of substances

- (i) Heavy metals;
- (ii) Organic compounds;
- (ii) Nutrients;
- (iv) Radioactive substances;
- (v) Other.

(2) Source categories and source areas

- (i) Energy production (power stations, above a minimum size limit and using various fuels;...);
- (ii) Industry (oil refining; petrochemical plants; primary and secondary iron and non-ferrous metal processing; chlor-alkali works; cement works; waste incinerators; ...);
- (ii) Transport (motor vehicles; trains; ships (in port or at sea); aircraft (on the ground or in the air); ...)
- (iv) Agriculture/forestry (use of pesticides; deforestation; ...); and
- (v) Geographical areas (coastal cities; industrial regions; ...)

F. Environmentally benign technologies

Measures to be taken to prevent, reduce, combat and control pollution via the atmosphere could be based on the following technologies:

- (i) fuel and raw material enhancement;
- (ii) cleaner and more efficient manufacturing processes;
- (iii) more efficient air purification technologies;
- (iv) more environmentally benign infrastructure (transport, energy production, alternative energy sources, etc.).

POINTS FOR ACTION ON AIRBORNE POLLUTION
UNDER THE LBS PROTOCOL

1. Implement within MED POL the monitoring and modelling programme of the Belgrade Workshop on Airborne Pollution as endorsed by the Scientific and Technical Committee in May 1988.
2. Start, in conformity with Article 11 of the Convention and Article 9 of the Protocol, an exchange of technological information on environmentally advanced process and air purification technologies starting with the control of the priority pollutants and sources.
3. Establish nationally an emission inventory process using common methodologies, such as the OECD/CORINAIR handbook (in preparation) as an input to the LBS Protocol inventory of sources.
4. Start the regulation process with heavy metals, under which the first priorities could be Cd, Hg and Pb (especially Pb in gasoline) and the following sources:
 - conventional power plants;
 - oil refineries and petrochemical plants;
 - ferrous and non-ferrous metal industry.
5. In respect of the above sources, existing national assessments of environmental impact should be identified to MEDU.
6. In the longer term, it will be important to regulate those pollution sources shown to be significant by the "Blue Plan".