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MEDITERRANEAN ACTION PLAN

Meeting of the National Focal Points for
Priority Actions Programme (PAP)

Split, 24-26 June 1987

PROGRESS REPORT ON THE IMPLEMENTATION
OF PAP IN 1986



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MEDITERRANEAN ACTION PLAN
PRIORITY ACTIONS PROGRAMME

UNITED NATIONS ENVIRONMENT PROGRAMME

REPORT
ON THE IMPLEMENTATION OF THE PRIORITY ACTIONS PROGRAMME .
IN 1986

Priority Actions Programme
Regional Activity Centre
Split, January 1987

SUMMARY

1. In the frame of the 1986 workplan, approved by the Fourth Ordinary Conference of the Contracting Parties to the Barcelona Convention (Genoa, September 1985), The Regional Activity Centre for the Priority Actions Programme has been carrying out 10 priority actions and 2 specific activities.
2. Fourteen demonstration studies and 68 other documents have been prepared, and 13 expert meetings (with the participation of interested UN agencies), one working meeting, 5 seminars, 14 country missions (some with WHO and FAO) and a number of other meetings organized. Also, documents are being prepared for 1987 (documents for 3 seminars, 3 workshops, and 2 training courses). In 3 priority actions the definition and promotion of co-operative projects has continued (for the project on seismic risk reduction, a part of necessary finances has been secured). Finally, Directories of Mediterranean experts and institutions in 3 priority fields have been completed and published.
3. By the end of 1986, the fact-finding and reconnaissance process, as well as identification of specific needs of the countries (of subregional areas) were completed in the majority of actions. In each of these, one or two seminars were organized and thematic documents and/or co-operative project proposals prepared. Directories of Institutions and Experts, Water Resources Management, Integrated Planning and Management of Coastal Zones, Rehabilitation and Reconstruction of Historic Settlements, Land-Use Planning in Earthquake Zones, Aquaculture and Environmental Impact Assessment fall in this group of actions, while other actions, namely, Solid and Liquid Waste Management, Soil Protection, Development of Tourism Harmonized with the Environment, Renewable Sources of Energy and Coast-Hinterland Interrelations are expected to become fully-fledged in the course of 1987.
4. The Contracting Parties have been well represented in all the actions; their contribution and activity have largely increased. Out of 7 actions wherein the Programme expects direct involvement of the countries, one action is supported by the participation of 12 countries; another two with the participation of 13 countries; while in one action as much as 14 countries are taking part.
5. In all actions a fruitful co-operation has been set up with various Agencies of the UN system and with other international organizations (WHO, UNDRO, FAO, UNESCO, UNCHS, MEDRAP, WTO, ICCROM, ACSAD). Duplication and overlapping of activities have thereby been avoided, and the use of advanced international knowledge as well as a rational allocation of resources have been secured. In all joint activities PAP has provided the environmental component, while the Agencies have provided their professional expertise.
6. The network of experts and institutions has been consolidated and enlarged facilitating a reliable choice of specialists for any given action in the future.
7. Contacts with National Focal Points have been intensified in almost all the countries of the Region, and the process of task formulation and subject selection in the priority actions is receiving growing contribution and stimulus from the Focal Points.

8. Since 1986 the activities have been increasingly aimed at direct and concrete results (country missions, preparation of manuals and guide-books, organization of workshops on methodological topics, training courses for specialists and professionals, round-table discussions for decision makers, formulation of co-operative project proposals.

9. A wide participation of Mediterranean countries in the 1986 PAP activities has enabled an insight into the state of environment and the specific problems pertaining to the use of resources in a country and/or a subregion. This has also made possible the future activities to be formulated so as to draw upon specific country-oriented (or subregion-oriented) programmes.

10. With the assistance of the Co-ordinating Unit for MAP, PAP/RAC started in 1986 issuing its Bulletin in Arabic, hoping to continue in 1987 with the practice to cover all major PAP reports.

11. Respecting the conclusions of the Joint Meeting of national Focal Points for the Blue Plan and the Priority Actions Programme (Athens, April 1986), each PAP report contains an executive summary, and in each action a choice of documents is being made and published as MAP Technical Report Series. Such manner of document presentation should facilitate and promote the use of PAP outputs in the Region.

12. A part of PAP activity was for the first time organized outside Yugoslavia (seminars in Athens, Palma de Mallorca and Genoa; Working Group in Malta). This proved useful although somewhat more costly. With the help of public information media, the events received attention of a large number of domestic experts who were being informed in detail of MAP and PAP projects. On the occasions, contacts at high levels were set up opening perspectives for a permanent, intensive and active-oriented co-operation in the fields of interest to the host countries.

13. Co-operation with the Co-ordinating Unit for MAP, the Blue Plan, and MEDPOL has been direct, guiding and beneficial to PAP.

14. Co-operation with the authorities of the country hosting PAP/RAC has been continuous and efficient. Their financial support covering the highly increased costs of administration, premises and the Supporting organization enabled PAP/RAC to carry out smoothly its considerably expanded activity. The status of the Centre as a specific national organization entrusted with the Programme by the Contracting Parties is about to be defined.

15. Co-operation with the National Focal Points for PAP has improved and expanded. The active participation of Focal Points in the Programme formulation, in the selection of subjects of interest for the countries they represent, and in the presentation and use of PAP outputs has been vital for the future orientation of PAP. The Centre is in this way expressing its gratitude to all national Focal Points for their contribution to the activities carried out in 1986.

16. The still pending questions of the presentation of outputs to general public, translation of documents into English and French and into other languages of the countries of the Region call for the possibilities to be examined for taking appropriate decisions.

17. Considerable financial difficulties have been faced due to the depreciation of the dollar causing problems in the implementation of the Programme, and due to the increased costs of PAP which are financed by MTF and by the country hosting the Centre. This has affected the smooth work of the Centre and its organizational structure.

I BACKGROUND INFORMATION

1. The 1986 workplan of PAP as well as the programme and budget proposal for the 1986-1987 period (UNEP/WG.129/7) were examined at the Joint Meeting of National Focal Points for the Blue Plan and PAP (Athens, May 1985). The starting basis of the Programme have been the following:

- (a) conclusions and recommendations of the First Meeting of National Focal Points for PAP held in Split in 1982 (MAP/PAP/FP.1);
- (b) conclusions and recommendations of the third Ordinary Meeting of the Contracting Parties held in Dubrovnik in 1983 (UNEP/IG.43/6);
- (c) conclusions and recommendations of the Extraordinary Meeting of the Contracting Parties held in Athens in 1984 (UNEP/IG.45/15);
- (d) experiences obtained and results achieved in the initial phase of activities over the 1983-1985 period (UNEP/WG.129/4);
- (e) meetings of PAP and BP on the harmonization of activities and arrangements with various agencies of the UN system.

The 1985 Joint Meeting of BP and PAP Focal Points discussed the proposed programme and recommended it, with minor changes, to the Contracting Parties for approval (UNEP/WG.129/8).

2. The Fourth Ordinary Meeting of the Contracting Parties (September 1985) amended and accepted the 1986-1987 PAP programme and budget (UNEP/IG.56/5).

3. The 1986 Joint Meeting of BP and PAP Focal Points took note of the Programme implementation in 1985 and in the first quarter of 1986, and made several recommendations (UNEP/WG.143/8). These recommendations have been duly respected in the follow up of the programme (particularly the recommendations relative to the revision of Directories, the action on solid waste management, monitoring at submarine outfalls, co-operative project proposals, etc.).

II A SURVEY OF ACHIEVEMENTS PER PRIORITY ACTION

1. SUPPORT TO PAP

Within "General Support", PAP/RAC produced:

- 4 issues of PAP Bulletin (in English, French and Arabic) in 300 copies which were disseminated to interested institutions in all the Contracting Parties, UN agencies and international organizations;
- documents for the 1986 Joint Meeting of National Focal Points for PAP and the Blue Plan;
- the 1987 Programme proposal and the Programme framework for the following biennium.

Intensive links and direct contacts with Focal Points have been maintained. Also, steps have been taken in some priority actions for setting up a document reference list with the objective of establishing a PAP data bank.

2. DIRECTORIES OF INSTITUTIONS AND EXPERTS

The second group of Directories in the following priority fields were completed and published:

- (a) Human Settlements - in two volumes;
- (b) Soil Protection - in two volumes;
- (c) Tourism - in one volume.

Unlike the first group of Directories (published in 1983-1984), the response of Mediterranean institutions and experts to this second group of Directories was much prompter facilitating the collection of necessary information and making them useful in the selection of experts and institutions for future bilateral and multilateral co-operation in various priority fields. Unfortunately, due to a bilated inflow of data from two major tourist countries, the directory on tourism remained incomplete. It will be supplemented with an annex in the course of 1987.

3. ACTIVITIES WITHIN THE FRAME OF THE "HUMAN SETTLEMENTS" PRIORITY FIELD

3.1 Priority Action "Water Resources Development in Mediterranean Small Islands and Isolated Coastal Areas"

3.1.1 Completed activities.

- in-depth study on (a) experiences in water resources management on a small island of specific environmental value (France), and (b) experiences in desalination (Italy).
- Missions on selected topics of interest for visited countries (Cyprus, Yugoslavia, Greece, Spain, and Malta - organized together with WHO), followed by mission reports and a thematic synthesis.
- Seminar on Water and Sanitation in Small Mediterranean Islands and Isolated Coastal Areas (Palma de Mallorca, 24-26 September) prepared together with WHO and with the participation of 11 Mediterranean countries and Portugal as well as representatives of UNESCO, ACSAD, Mediterranean Water Institute (MWI), and a large number of Spanish experts. The seminar took note and discussed the mission reports (the island of Nisyros in Greece, Mallorca in Spain, Silba in Yugoslavia, and the Maroni site in Cyprus), in-depth studies (Italy, France), an example of aquifer modelling (ACSAD), UNESCO's report on the hydrology and water balance of small islands, a paper on the problems of water supply and sanitation in the Azores archipelago, the report on water

resources management in Spain and Syria, and the paper on water resources management in the Balearic Islands. The proposals and recommendations are contained in the seminar report (PAP-3/SM.1/1).

- PAP/RAC-WHO/EURO Working Group on Water and Sanitation in Big Mediterranean Islands and Isolated Coastal Areas of Fluctuating Population Caused by Tourism (Malta, 9-12 December), with the participation of 14 Mediterranean countries and Portugal, as well as UNESCO, IMO and MWI. The meeting considered the problems of the combined use of surface and ground water in the areas of fluctuating population (Cyprus), water supply of islands by tankers (Greece), water supply by way of desalination (Malta), possible utilization of submarine springs (Sicily), re-use of treated urban waste water for irrigation (Mallorca), water supply of a group of islands by submarine pipelines (Brac and Hvar in Yugoslavia, Arwad in Syria), water treatment and protection against pollution in coastal zones of developed tourism (Portugal, Israel). Discussed were also the sanitary aspects of water supply in the condition of fluctuating demand (Crete, Portugal, Turkey) as well as the possibilities of using ecological criteria for determining the quality of coastal waters.
- An expert meeting convened to determine the thematic framework and contents of a manual for water resources management and sanitation in Mediterranean islands and coastal zones (PAP-3/EM.2/1).
- Terms of reference for the preparation of reports on the problems of water supply in the coastal zones of Mediterranean Arab countries.

3.1.2 Conclusions of interest for the Mediterranean Region

- A limited capacity of water resources in the islands calls for additional resources to be secured for future development, particularly for tourism which has been favoured in the majority of Mediterranean countries.
- Protection of water resources against pollution is as important as the solution of water supply problems.
- Traditional techniques of rain harvesting should continue to be used with the application of contemporary technologies.
- Alternative sources of water supply should be urgently examined, selected and used.
- Re-use of treated waste water, particularly for irrigation, should be thoroughly studied and applied wherever appropriate.

- Solution of water resources management problems, the solution of sanitation problems and the development of tourism should be a simultaneous process.
- The existing knowledge enables a practical exchange of experience and, with the support of scientific methods, upgrading of water resources management.

3.1.3 Outputs.

- mission reports;
- two in-depth studies;
- Seminar report (Palma de Mallorca);
- Working Group report (Malta);
- thematic framework of the manual;
- selected papers and documents published as MAP Technical Reports Series.

Necessary conditions have been created for concrete actions (missions), for the incorporation of water resources management in the process of integrated planning (Water-Sanitation-Tourism), and for the organization of training.

3.1.4 Network of experts.

Fifty experts from 14 Mediterranean countries have been actively contributing to this priority action.

3.2 Priority action "Integrated Planning and Management of Mediterranean Coastal Zones"

3.2.1 Completed activities.

- Demonstration studies on the experiences and problems of coastal planning in France, Greece, Italy, Israel, Spain, Tunisia, Turkey and Yugoslavia; as well as their synthesis.
- Seminar on Integrated Planning and Management of Mediterranean Coastal Zones (Athens, 25-27 June 1986), organized in co-operation with the Ministry of Environment, Planning and Public Works of Greece. The seminar was attended by the representatives of 12 Mediterranean countries, of UNESCO, WHO, the Blue Plan and MAP, as well as by 20-odd Greek experts. The seminar took note of and discussed the demonstration studies of Languedoc-Roussillon (France), Amvrakikos (Greece), Caesarea-Netanya (Israel), Cinque Terre (Italy), Catalonia (Spain), South Antalya (Turkey), the Rijeka Bay (Yugoslavia) and Halki (Greece - presented by UNESCO). The conclusions and recommendations are contained in the seminar report (PAP-4/EM.2/1).
- Terms of reference for the preparation of workshop papers were formulated and disseminated to the authors.

- A consultative mission visited Tunisia and Morocco with the objective to (a) get familiar with the state of integrated planning of coastal zones in these countries, and with the results achieved in the field; (b) identify needs for and interests in the exchange of experience and/or formulate pilot project proposals; and (c) present in detail the methodology of sea use planning. Findings of the mission and proposals for future are contained in the mission report.

3.2.2 Conclusions of interest for the Mediterranean Region.

- In a great majority of Mediterranean countries the integrated planning process in coastal zones has not been fully applied.
- Integrated development plans and projects should include not only the coastal zone but also the atmosphere, the adjacent marine zones and the hinterland as integral component parts.
- Regardless of different planning methodologies in Mediterranean countries, there exist the need and elements for elaborating a common methodological approach to the integrated planning of Mediterranean coastal zones.
- Modern techniques and methods as a tool in integrated planning have not been fully used.
- A large part of the coastal strip both in the developed and the developing countries is not covered by adequate development and management plans.
- International knowledge accumulated particularly in UN agencies, and the experience gained through other PAP actions should be built into the process of integrated coastal planning departing from a common methodological basis and using the interdisciplinary and multisectoral approach.

3.2.3 Outputs.

- demonstration studies;
- Seminar report;
- Report of the meeting of experts on the preparation of workshops dealing with basic methodological elements, tools and techniques for integrated planning and management of coastal zones;
- selected set of papers to be published as MAP Technical Report Series.

Necessary conditions have been created for country missions and assistance in the preparation of plans.

3.2.4 Network of experts.

Over 50 experts from 13 Mediterranean countries have been contributing to this priority action.

3.3 Priority action "Rehabilitation and Reconstruction of Mediterranean Historic Settlements"

3.3.1 Completed activities.

- Following the conclusions of the seminar held in Split in 1985, 7 demonstration studies and their synthesis were completed on the experiences in the protection and rehabilitation of selected Mediterranean historic settlements in Cyprus (Nicosia), France (Marseille - Panier), Israel (Caesarea), Italy (Genoa), Spain (Malaga - Perchel), Tunisia (the medina of Tunis), Morocco (Fès) and Yugoslavia (Split).
- Seminar on the Experiences in the Protection and Rehabilitation of Selected Mediterranean Historic Settlements was held in Split from 16 to 19 April 1986 and was attended by the representatives of 12 Mediterranean countries, UNESCO, WHO, ICCROM and ICOMOS. The seminar considered and discussed the presented demonstration studies and their synthesis, as well as a survey of problems in the protection of historic centres of Damascus and Alepo (Syria), Safranbolu (Turkey) and the Santorini island (Greece). The seminar also considered a paper on the possible approach to the selection of criteria for the identification of historic settlements of a common Mediterranean interest (prepared by PAP/RAC and an ICCROM consultant). The conclusions and recommendations are contained in the seminar report (PAP-5/sm.2/1).
- Expert meeting for the preparation of a workshop on the analysis of the actual state of Mediterranean urban and architectural heritage (Split, 2-3 June 1986) suggested the objectives and contents of the workshop and the substantive papers ^ . (PAP-5/EM.2/1).
- Authors were nominated and papers on methodological subjects commissioned.
- Additional demonstration studies were commissioned on the selected historic settlements in Turkey, Greece and Egypt with the objective to complete a Mediterranean historic and urban typology survey.
- Consultative mission to Cyprus had the task to exchange experience with local experts on the problems of protection of a part of the Nicosia historic core.
- In co-operation with an ICCROM consultant, a paper was prepared on possible criteria for the selection of 100 historic settlements of a common Mediterranean interest. Together with the Co-ordinating Unit for MAP, the Centre took part in the discussion with the President of ICOMOS on the ways of carrying out the action.

3.3.2 Conclusions of interest for the Mediterranean Region.

- Historic settlements in Mediterranean coastal zones are part of the unique Mediterranean identity.
- The state of historic settlements calls for urgent and intensive protection, reconstruction and rehabilitation.
- Aware of the cultural and historic value of historic settlements, all Mediterranean countries have been taking various protective and rehabilitation measures.
- The striking similarity of approaches to conservation, rehabilitation and of doctrine applied in the majority of Mediterranean countries gives enough field for setting up a unique doctrine and procedure basis for the rehabilitation of Mediterranean historic settlements.
- While in harmony with national development plans, the Mediterranean historic settlements should be regarded and treated as decisive socio-economic factors of development. Simultaneously, the future development (particularly of tourism) should take into consideration its possible impact on historic settlements (harmonization of plans, impact studies, etc.).
- Absolute priority in all national and regional actions should be given to the protection and rehabilitation of historic settlements in earthquake zones.

3.3.3 Outputs.

- demonstration studies;
- reports of the two seminars;
- papers on methodological subjects;
- mission reports;
- set of papers from the first phase of the action, published as MAP Technical Report Series.

Conditions have been created for the organization of workshops, missions and training courses in the forthcoming period, as well as for incorporating the protection and rehabilitation of historic settlements in the integrated coastal planning and land-use planning in earthquake zones.

3.3.4 Network of experts.

Over 40 experts from 14 Mediterranean countries have been participating in this priority action.

3.4 Priority action "Land Use Planning in Earthquake Zones"

3.4.1 Completed activities.

- Following recommendations of the seminar held in Cetinje in 1985 and within the accepted thematic framework, several demonstration studies were commissioned from and prepared by Algeria (Seismic Hazard Assessment and Land Capability Analysis in Ech-Cheliff), France (on the protection of historic settlements in earthquake zones - the example of Marseille), Italy (Organization of Civil Protection), Turkey (Legislation and Institutional Framework Relative to the Reduction of Seismic Risk), and Yugoslavia (Principal Issues in Determining the Seismic Vulnerability and the Accepted Seismic Risk). PAP/RAC prepared a synthesis of the demonstration studies.

- In co-operation with UNDR0, UNCHS, UNESCO and UNIDO, PAP/RAC formulated a project proposal entitled "A Co-operative Programme for Seismic Risk Reduction in the Mediterranean Region". The programme implies:
 - a synthesis of knowledge and experience necessary for the formulation of appropriate national policies;
 - development of multidisciplinary and complex approaches adopted in the seismic risk research and management in Mediterranean countries;
 - development of seismic risk reduction projects incorporated as an integral part of physical planning and building design techniques;
 - strengthening and developing the earthquake disaster preparedness measures;
 - enhancement of public awareness of seismic risk.

Within the project, the following outputs are to be produced and the actions taken:

- a synthesis of knowledge and experience;
- basic elements for national policies;
- two workshops and two seminars dedicated to specialists;
- two round-table discussions for decision makers;
- guidelines and papers on methodological subjects related to aseismic plans;
- training of professionals;
- a proposal for the permanent Mediterranean co-operation in the field of seismic risk reduction.

The Agencies involved in the project have been expected to secure the international knowledge and experience, while the implementation of various sections of the project will be entrusted to the Mediterranean countries which have obtained advanced scientific knowledge and secured its practical application.

- Seminar on Seismic Risk Reduction in the Mediterranean Region (Genoa, 16-18 October 1986) which was organized in co-operation with the Regional Government of Liguria, Municipality of Genoa, University of Genoa, and under auspices of the Ministry of Civil Protection of Italy was attended by the representatives of 12 Mediterranean countries, UNDRO, UNCHS and UNESCO, as well as by over 100 invited Italian experts. The seminar considered the presented demonstration studies and their synthesis, and a UNESCO paper on the impact of UNESCO action for seismic risk reduction on regional level. The seminar specifically took note of the project proposal entitled "A Co-operative Programme for Seismic Risk Reduction in the Mediterranean Region" and unanimously supported it, recommending its urgent launching. Having in mind the high level of scientific knowledge obtained in Italy, the seminar expressed the wish for the country to host the project. The conclusions and recommendations are contained in the seminar report (PAP-6/SM.2/1).
- The project proposal was submitted jointly by the four Agencies involved and PAP/RAC to UNDP - European Office for financial support in the following Programming Cycle (1988-1991). The proposal was accepted by the Task Force III - Science and technology, while the final decision on financing rests with UNDP Office in New York. The proposal was also submitted to UNDP - Arab States for consideration at the beginning of 1987. On behalf of the Agencies and PAP/RAC, UNDRO and the Co-ordinating Unit for MAP addressed a proposal to Italian authorities for co-financing and hosting the project.

3.4.2 Conclusions of interest for the Mediterranean Region.

- The Mediterranean is a major earthquake zone where a number of countries are regularly affected by earthquakes. This knowledge must be kept in mind in planning and implementing the use of resources and the protection of the environment.
- The Mediterranean countries and the specialized UN agencies have accumulated an extensive expertise in dealing with earthquakes, enabling the actions to be taken for seismic risk reduction.
- The available knowledge is still lacking cohesion and interdisciplinary dimension, and is not adequately incorporated in the decision-making process, planning and management of Mediterranean coastal zones.
- Some Mediterranean countries (several developing among them) have obtained a high-level experience offering a field for the exchange of experience and permanent co-operation among the countries of the region in seismic risk reduction.
- The accumulated knowledge has not been adequately included in land-use planning. In taking urgent action this should be the matter of first priority.

3.4.3 Outputs.

- the thematic framework;
- papers and reports of the first and the second seminars;
- the co-operative project proposal.

3.4.4 Network of experts.

About 30 experts from 13 Mediterranean countries and 4 UN agencies (UNDRO, UNCHS, UNIDO, UNESCO) have been actively contributing to this priority action

3.5 Priority action "Solid and Liquid Waste Collection, Disposal and Management"

3.5.1 Completed activities.

- The PAP contribution to the monitoring of the influence of urban wastewater submarine outfalls. According to the approved Programme for 1986-1987, PAP should, within this activity, provide the countries with an adequate engineering support in planning and management of urban wastewater outfalls in the Mediterranean Sea. For that reason a joint PAP/RAC-WHO-UNEP/MAP expert meeting was organized in Split on 27-28 March. The meeting discussed, amended and accepted the proposed unique programme for monitoring of physical, chemical and microbiological parameters, and identified the sites on which it is possible to organize such monitoring. The revised programme of monitoring is contained in the document PA-7/EM/4. PAP also participated in the meeting for the preparation of the programme for the mathematical modelling of the submarine outfalls impact on the sea-water quality, held in Athens on 16-18 December 1986. Agreements were made with institutions from four countries for the preparation of monitoring, and on the ways of data processing and use for engineering projects. Since MEDPOL was unable to provide the means for the support of monitoring, this action has to be postponed for the year 1987 and later.
- Preparation of a manual for solid waste. Following the recommendations of the NFP meeting held in Athens in 1986, PAP, together with WHO, started preparing a manual for solid waste management specific for the Mediterranean coastal states, taking care particularly of the needs of developing countries. For this purpose a permission was obtained by the Algerian government to use the manual earlier prepared by Algerian and WHO experts. On December 9-12, 1986, an expert meeting was organized in Split to define the objectives, contents and way of the preparation of this manual (PAP-7/EM.3/1). According to the conclusions of the meeting and upon agreement with WHO, PAP/RAC took preliminary steps for the preparation of a draft manual.
- Preparation of a manual for liquid waste. In collaboration with WHO, PAP tried to engage one or more experts for the preparation

of the draft, but it was not possible within the limits of allocated funds.

- National reports on the state and problems of solid and liquid waste management in the Mediterranean countries. Measures were taken to have the national reports completed and until now 11 reports have been received.

3.5.2 Outputs.

- national reports;
- expert meetings reports;
- preparatory papers for the manual for solid waste management;
- preparatory papers for the monitoring and mathematical modelling of the impact of urban waste water at submarine outfalls on the sea water.

3.5.3 Network of experts.

In collaboration with WHO and the Co-ordinating Unit for MAP, 25 experts from 12 Mediterranean countries have participated in this action.

4. PRIORITY ACTION: "PROMOTION OF SOIL PROTECTION AS THE ESSENTIAL COMPONENT OF THE ENVIRONMENTAL PROTECTION IN MEDITERRANEAN COASTAL ZONES"

4.1 Completed activities.

- According to the conclusions of the expert meeting held in 1985, the following detailed studies were commissioned: "Integrated Approach to the Management of Catchment Areas in Italy"; "Experimental Research of Factors and Mechanisms of Soil Erosion Processes in Israel"; "Protection of Soil against Wind Erosion in Libya"; "Impact of Forest Management on Soil Protection in Morocco"; "Making and Use of the Soil Erosion Maps in the Mediterranean Coastal Zones of Turkey"; "Protection of Agricultural Land from Non-agricultural Uses in Coastal Zones of Tunisia", and "Protection of Agricultural Land from Non-agricultural Uses in the Adriatic Coast of Yugoslavia". For various reasons, the completion of these studies was bilated so that the seminar scheduled for 1986 had to be postponed.
- Definition and preparation of the co-operative project for monitoring of rainfall erosion. Preparatory meetings with ACSAD and FAO were held, a draft of the project formulated, and the interest of the countries as well as the possible sites for test monitoring of the process identified. Missions were sent to Syria (together with FAO), Italy and Tunisia. The results of the missions, including the concrete suggestions for direct co-operation and elaboration of the project elements, are contained in the mission reports.

- Based on the prepared national reports and outputs of the meetings and missions, the formulation of a programme of the integrated management of catchment areas, as a form of a specific ecological approach to the problems of soil protection in coastal zones, is in preparation.
- A choice from the prepared papers is being made for publishing as MAP Technical Reports Series.

4.2 Conclusions of interest for the entire Mediterranean Region.

- All Mediterranean coastal zones are subject to erosion caused by runoff, wind and sea water. Some areas are also afflicted by salinization and sodication, encroachment of sand dunes and impoverishment of soils. The loss of agricultural land to non-agricultural uses is pronounced, especially because of the spreading of towns. The problems caused by forest fires, landslides and subsidence are considerable.
- The runoff erosion and loss of agricultural land are declared priority problems in the field of soil protection. The loss of agricultural land to the expansion of towns must be prevented by adequate measures, particularly by an appropriate process of integrated planning.
- Scientific monitoring of erosion processes, especially those caused by runoff, already exist in the majority of Mediterranean countries, while separate subregional monitoring projects are either in process or have been completed. Since the monitoring methodology is not uniform, the comparison of results and exchange of experience are difficult.
- A need was raised to prepare a draft project of monitoring the runoff erosion process on a unified methodological basis, and to create conditions for its application.
- A number of countries expressed the wish to receive missions to give them expert assistance with their problems, staff training, and co-operation in the process of staff education and establishment of professional services and institutions.

4.3 Outputs.

- detailed studies;
- reports of the expert meetings;
- co-operative project proposal;
- mission reports;
- concept of a specific ecological programme.

4.4 Network of experts.

Apart from FAO and ACSAD, 25 experts from 13 countries have actively participated in this action.

5. PRIORITY ACTION: "DEVELOPMENT OF MEDITERRANEAN TOURISM HARMONIZED WITH THE ENVIRONMENT"

5.1 Completed activities.

- National reports from 9 countries have been completed, as well as their synthesis.
- A meeting was organized with the representatives of World Tourist Organization (WTO) with a view to harmonizing the activities and agree upon future co-operation.
- The first expert meeting was held in Split, on 21-23 May 1986, with the participation of WTO and the Blue Plan, as well as a number of experts from 7 Mediterranean countries. The meeting discussed the presented national reports and their synthesis, and formulated a proposal for the follow up of the action (PAP-9/EM.1/1).
- Based on the recommendations of the expert meeting, a selection of subjects and sites for the preparation of detailed studies has been made, conditions for their preparation created, the authors nominated, and the studies commissioned.
- Since the preparation of the documents was belated, the seminar scheduled for 1986 had to be postponed for 1987.

5.2 Conclusions of interest for the entire Mediterranean Region.

- All Mediterranean countries, in their national development policies, give an important role to tourism as a basis of development.
- The intensive, and often uncontrolled, development of tourism in numerous Mediterranean zones caused such problems as degradation of environment, overbuilding, development based on a single industry, insufficiency of necessary infrastructure, and particular problems of supply with good-quality water.
- By a controlled development of tourism, and first of all bearing in mind the negative experience, it is possible to achieve, through integrated planning, carrying capacity estimates and environmental impact analysis, a development harmonized with the promotion and protection of the environment.
- The high rate of the seasonal population growth due to tourism makes special demands, particularly upon traffic, water and energy supply, and sanitation. Experience and knowledge obtained in these fields have to be included into the processes of tourism planning and development, and management of tourist zones.
- A particular attention has to be paid to the problem of tourism development on small islands, specially protected areas and historic settlements, considering the sensibility of their eco-systems.

- Some forms of tourism (nautical tourism, for example) stand out for the possible negative impact on the environment, and special care has to be taken to ensure their development harmonized with the environment.

5.3 Outputs.

- national reports and their synthesis;
- programme of further activities in accordance with the needs of the countries and the identified major problems;
- the expert meeting report;
- detailed studies (in preparation).

5.4 Network of experts.

Apart from WTO and UNESCO participation, some 20 experts from 11 countries have taken part in the action.

6. PRIORITY ACTION: PAP/FAO/MEDRAP CO-OPERATIVE PROJECT "DEFINITION OF ECOLOGICAL CRITERIA FOR THE RATIONAL DEVELOPMENT AND PROTECTION OF AQUACULTURE IN MEDITERRANEAN COASTAL AREAS"

6.1 Completed activities.

- Documents: "Ecological, Social and Economical Aspects of Aquaculture in the Mediterranean Region" and "Aquaculture and Planning of Coastal Zones in the Mediterranean - Ecological Criteria" have been examined, copied and disseminated.
- PAP participated in the MEDRAP seminar "Ecology and Aquaculture", held in Patras (Greece) by financing a part of the programme.
- In collaboration with representatives of FAO and MEDRAP the co-operative programme has been developed. The project will include a study of ecological criteria and parameters of the eco-system relevant for the development of aquaculture activities, departing from the fact that each site suitable for aquaculture is a specific eco-system. The objectives of the project are to define, calibrate and improve an integrated strategy of site evaluation and monitoring for the development and protection of aquaculture activities. The project will include the collection and processing of relevant data, preparation and testing of model hypotheses, and the preparation of the final model. The outputs of the project will also contain the processed data, system models, guidelines for the selection of sites and production programming, guidelines for ecological management of aquaculture activities, guidelines for a rational and permanent monitoring, and for training. In the first phase of the project, 3-5 sites should be studied.
- At the meeting of MEDRAP and PAP representatives, held in Split on 5-6 June 1986, a programme was developed for the preparation of the project (PAP-10/9).

- Missions were sent to various countries to establish the conditions at and the available data about the sites that will be included in the project; PAP and FAO sent missions to Yugoslavia, Spain, Turkey and Egypt while MEDRAP envoyed missions to Tunisia and Morocco.
- The PAP representatives participated in the UNDP-FAO-MEDRAP meeting (Tunis, December 1985) where the future programme orientation of MEDRAP was discussed, as well as co-operation in the joint project. The meeting supported the orientation to the protection of sites suitable for aquaculture and to ecological management of aquaculture farms.

6.2 Conclusions of interest for the entire Mediterranean Region.

- In their national development plans, all Mediterranean countries, without exception, pay great attention to aquaculture development.
- In almost all countries there are a certain scientific base and initial cores of aquaculture activities. A developed scientific knowledge and farms operating on a commercial or semi-commercial basis exist only in Spain, France, Italy and Israel, as well as in Yugoslavia and Greece, but on a smaller scale.
- Criteria for site selection and parameters relevant for the identification of the eco-system as a specific natural resource for aquaculture are neither unified nor are adequately applied to the procedures of site selection and planning of aquaculture farms.
- MEDRAP and FAO have mostly been directed to the biotechnical aspects of aquaculture development (seed production, growth, nutrition, etc.) and far less to the ecological aspects (i.e., study of eco-systems). The ecological approach developed by PAP has been appreciated and accepted by FAO, UNESCO, MEDRAP and the countries participating in the project.
- The existing knowledge makes a good basis for a more intensive development of aquaculture. The priority needs of most countries are specialized staff, development of production facilities, establishment of ecological management and necessary but financially reasonable monitoring, and the identification and protection of suitable sites.

6.3 Outputs.

- seminar papers;
- mission reports and other papers;
- the co-operative project.

7. PRIORITY ACTION: "RENEWABLE SOURCES OF ENERGY"

7.1 Completed activities.

- The criteria for a Mediterranean Centre for renewable energies were established and sent to National Focal Points to identify their interest to host the Centre. Until now, PAP/RAC have received the response from three countries.
- The following case studies have been prepared: "Application of Solar Energy in Greenhouses and Solar Crop Drying" (Italy) and "Greenhouse Irrigation and Habitation Electrification with Photovoltaic Solar Energy" (Spain). A study on the application of solar energy in architecture has been ordered from France, on experiences in the application of solar energy in greenhouses and crop drying from Egypt, and on thermal conversion of solar energy from Yugoslavia.
- Experts were sent to the seminar on renewable sources of energy held in Almeria (Spain) in October 1986.
- The authors of the case studies were nominated too late and, therefore, the seminar scheduled for 1986 had to be postponed for 1987.
- Provisions were made for the preparation and organization of a training course on the practical application of solar and wind energies.

7.2 Outputs.

- case studies.

7.3 Network of experts.

A network of 15 experts from 7 countries has been set up.

8. SPECIFIC ACTIVITY: "ENVIRONMENTAL IMPACT ASSESSMENT (EIA)"

8.1 Completed activities.

- Questionnaires on the application of EIA were disseminated to the National Focal Points, and responses were received from 11 countries.
- The following documents were prepared: "The Environmental Impact Assessment (EIA) Process in Mediterranean Countries" (as a result of the processed in-filled questionnaires), and "EIA - Suggested Procedure and Guidelines for the Mediterranean Countries", as well as the terms of reference for the preparation of EIA studies for a marina, tourist accommodation complex, submarine outfall for a city of up to 100,000 inhabitants, sewage treatment plant for a city with more than 100,000 inhabitants, and a sewage treatment plant for a city between 10,000 and 100,000 inhabitants.

- The prepared documents were discussed at the UNEP-PAP-WHO expert meeting held in July 1986. The recommendations and conclusions of the meeting are contained in the report PAP-12/EM.2/1.
- According to the conclusions of the July meeting, the documents were amended, and the final version was discussed at the meeting held in November 1986, which also served as a briefing for the mission in Yugoslavia (PAP-12/EM.3/1).
- The participating countries were invited to express their interest in training courses and in receiving missions presenting the developed EIA procedures. Ten countries responded.
- An expert meeting was organized for the final formulation of a simplified EIA procedure, as well as a mission discussing with Yugoslav representatives the problem of EIA application in Yugoslavia and presenting the simplified procedure.
- Another mission was set to Turkey to present the developed EIA procedure. The outputs of the mission are contained in the mission report.

8.2 Conclusions of interest for the entire Mediterranean Region.

The EIA procedure is fully applied in few Mediterranean countries only. The procedures vary, and the applied methodologies are complicated, time-consuming and costly. In the majority of developing countries EIA is applied partially or not at all, a special problem being the fact that the methodology requires the engagement of foreign experts. That is the reason why the activity of PAP, in collaboration with UNEP, MAP and WHO, is directed to the development of a simplified procedure, including analyses based on analogies, which will meet the needs in the majority of cases, especially in developing countries. The great interest shown by all the countries in the practical application of this simplified method proves that the present orientation is correct and that this activity should be given an important role in the future PAP.

8.3 Outputs.

- two substantive documents;
- mission reports;
- necessary conditions created for training courses on national and/or subregional level.

9. SPECIFIC ACTIVITY: "COAST-HINTERLAND INTERRELATIONS"

9.1 Completed activities.

- The initial paper "Coast-Hinterland Socio-Economic Relations as an Essential Element of Integrated Planning of Coastal Zones and Enhancement of Eco-Systems in the Mediterranean" has been prepared.

- An expert meeting was organized to discuss the initial paper, various aspects of the coast-hinterland interrelations, and the problems and experiences of the countries. The meeting also suggested the activities to be taken by PAP in the subsequent period (PAP-13/EM.1/1).
- In accordance with the proposed programme, the terms of reference for demonstration studies on specific cases are under way.

9.2 Knowledge arrived at.

- The hinterland of a coastal zone is an area of dynamic natural and socio-economic entity which does not necessarily coincide with administrative and/or geographic notions and where there are interrelations and reciprocal influences between the hinterland and the coastal zone.
- These interrelations are pronounced in the majority of Mediterranean countries and are considered very important for the development of coastal zones, as well as for the protection and enhancement of the environment. This phenomenon appears in different forms and degrees and, naturally, the consequences are different, too.
- The most common interrelations are population movements, economic activities, social services, administrative and cultural links and infrastructure.
- The consequences of these interrelations are: (a) in coastal zones: saturation of space, overpopulation, inadequacy of public services, communication problems, and environmental problems; (b) in hinterlands: depopulation, rural exodus, abandonment of economic activities and of agricultural land, loss of human potential and of development capabilities, high relative cost of provision of basic services, amenities and infrastructure, and lack of development processes.
- Measures adopted by different countries in an attempt to achieve a balanced development between coastal zones and their hinterlands are various and specific. These measures are reflected in national policies, preparation of regional plans, and in stimulating and restrictive measures of economic policy.
- Regardless of the measures taken, negative trends are still dominant, which gives cause for concern and offers a field of future co-operation and exchange of experience among Mediterranean countries.

9.3 Network of experts.

An initial network of 10 experts from 7 countries has been established.

III CO-ORDINATION AND CO-OPERATION

1. Contact of PAP/RAC with the Co-ordinating Unit of MAP and the co-operation with the Blue Plan have been permanent and intensive.. Also, the co-operation has been set up with MEDPOL and with other components of MAP, as well as with UNEP's Offices in Geneva and Paris. The Centre has been regularly reporting to UNEP Headquarters in Nairobi on all financial matters.
2. The Centre has established co-operation with WHO/EURO in the actions on water resources, solid and liquid waste management, and EIA; with UNESCO in the actions on water resources management, integrated planning, land-use planning in earthquake zones, and in the action on historic settlements; with UNDRO, UNCHS and UNIDO in land-use planning in earthquake zones; with FAO in the fields of soil protection and aquaculture; and with WTO in the priority action on tourism.
3. As to international organizations and institutions, a particularly promising co-operation has been established with ACSAD (water resources management, and soil protection), ICCROM and ICOMOS (historic settlements), IGME - Greece (water resources), Atelier du Patrimoine de la ville de Marseille, and with some others. At the end of the year, initial steps were taken for setting up co-operation with ALECSO in several priority actions.
4. In the intensive co-operation with national Focal Points all suitable and available forms of communication have been used, depending on the degree of urgency. As PAP entered the stage of concrete actions, the communications became more frequent. In the course of 1986 the Centre was visited by the representatives of six National Focal Points. A direct, quick and permanent communication of the Centre with the Focal Points is decisive for the outcomes of the actions and for the entire Programme. The role of the Focal Points and their written suggestions and proposals have been particularly valuable in the selection of experts, in gearing the Programme to the topics and activities of interest for the Contracting Parties. Therefore, the Focal Points should be given full credit for liaising PAP/RAC with national institutions in PAP-related fields although it has not always been an easy task because in the majority of cases the national authorities responsible for various activities are part of different Ministries or institutions. The Centre is in this way warmly thanking the Focal Points for their effort without which the implementation of the Programme in 1986 would have been hardly possible.

IV FINANCIAL ARRANGEMENTS

1. The flow of resources allocated to PAP by MTF in 1986 was regular and the contacts of the Centre with UNEP-Nairobi intensified and improved securing a smooth implementation of the Programme.
2. A drop of the dollar value reduced the budget of PAP by approximately 30 per cent in 1986. Therefore, the Centre tried to make some savings (country mission effectuated jointly with relevant UN agencies; decreased number of participants in expert meetings, etc.). However,

this is the reason why a number of country missions had to be postponed for the next year, as well as the preparation of some documents for the activities envisaged in 1987.

3. Simultaneously with the enlargement of PAP activities in 1986, there was a considerable increase of service costs (post and telecommunication, maintenance, reproduction of documents, etc.) which could not be entirely covered by resources (from MTF and from the host country) allocated to PAP as a general support. It was therefore necessary to resort to certain make-shift solutions. This problem will be hopefully solved in an appropriate manner through the agreement of MAP and the country hosting PAP/RAC.
4. The host country and its responsible authorities have been promptly fulfilling their financial and other obligations with the Centre, and have even secured with considerable difficulties some additional resources to cover the increased costs of PAP/RAC.
5. The 1986 programme and budget of PAP had not envisaged certain activities which later proved increasingly needed. These are the establishment of data basis and a documentation centre, preparation of papers for wider public and information media, translation of reports in several languages, etc. Neither could the 1986 programme secure for the Centre the additional non-expendable equipment (the third working unit of the WANG word-processor; two typewriters with memory) nor the training courses for PAP/RAC staff on the full range of the processor's advantages. It is to be hoped that in the forthcoming period the structure and equipment of the Centre will finally meet the needs and requirements of the Programme.