A second stage of the Ramsar Monitoring Procedure in Greece took place from 27 to 29 May 1989. Its purpose was to discuss certain legal and technical matters which could not be examined during the first visit due to the lack of time, to review new developments in the conservation of Ramsar sites since the first visit, to visit a few of the Greek Ramsar sites and to meet with local officials and representatives of various interest groups. The visit was made by Ms. M. Katz of the Ramsar Bureau and by Mr. C. de Klemm, consultant to the Bureau.

The arrangements made by the officials of the Ministry of the Environment were excellent both in Athens and in the field. The efforts made by Mr. Vournas, Director of Environmental Planning, Ms. Kourteli, Head of the Nature Management Section, Ms. Spiropoulou and Mr. Economou were particularly appreciated and contributed considerably to the success of the mission.

The visit was made on the eve of political elections which have since brought about a change of majority in Parliament. As a result, there is now a new Government and therefore a new Minister of the Environment. New Prefects have probably been appointed in the Prefectures. The extent to which the political changes will affect positively or negatively the policy and work of the Ministry concerned with nature conservation in general and the preservation of Ramsar Sites in particular, is for the time being unclear. New elections are expected to take place in October.
The visit was organized as follows:

22 May  
Arrival in Athens in the afternoon. Welcome by Rania Spiropoulou who drove C. de Klemm and M. Katz to the St. John Lycabettus Hotel.  
1800h Meeting with Mr. Th. Papayannis.

23 May  
Morning: Meeting with representatives of ministries of Environment, Agriculture and Merchant Marine.  
Afternoon: Meeting with Mr. Y. Troumbis, WWF representative for Greece.

24 May  
Morning: Meeting with Mr. Vournas, Director, Directorate of the Environmental Planning, Ministry of the Environment, Physical Planning and Public Works, and his staff of the Nature Management Section.  
Afternoon: Meeting with Mrs. N. Goulandris.  
Evening: Flight to Thessaloniki.

25 May  
Morning: Meeting at Central Macedonia regional offices on Axios.  
Afternoon: Meeting with Mr. Grammatikis, President of Chalastra commune.  
Short visit to Axios site.  
Evening: Meeting with Messrs. Dimou and Karitopoulos, Presidents of Kimina and Nea-Malgara.

26 May  
Morning: Trip to Serres, and Meeting at Serres Prefecture offices on Kerkini.  
Afternoon: Visit to Kerkini (1st part), and return to Thessaloniki.

27 May  
Morning: Visit to Kerkini (2nd part), and return to Thessaloniki.  
Afternoon: Trip to Alexandroupoli.

28 May  
Visit of Evros Delta, and Meeting with Mr. Mitroulakis, President of Loutros commune, Mr. Chrissalidis, Head of Fishermen's Association and other fishermen.  
Return to Thessaloniki.

29 May  
Return.
II) DISCUSSIONS ON MATTERS PREVIOUSLY NOT COVERED

a) Ministry of Merchant Marine.

Information was obtained on the system of public land ownership on the public maritime domain. All public lands seem to be owned by the Ministry of Economics. Management may, however, be entrusted to another agency. Thus, the Ministry of Agriculture would be the managing agency for fish farms established on the public domain. The Ministry of Merchant Marine seems, however, to have exclusive jurisdiction for enforcement of any legislation on the public maritime domain. It may, therefore, have to play an important role in the enforcement of regulations applicable to coastal Ramsar sites. The representatives of the Ministry stated that they would be ready to play that role.

b) Ministry of Agriculture

The views of the Ministry were presented by Ms. Kasdagli, Head of the Land Planning Section. She dealt mainly with general policy matters and emphasized that environmental considerations had now become a component of the Ministry's policy. She recognized that this sometimes leads to contradictions. She stressed, however, that the development of agricultural production and the improvement of the standard of living of rural populations were the basic objectives of the Ministry and that the environmental component had not been really integrated. Problems of jurisdiction between the Ministry of Agriculture and the Ministry of the Environment remain unresolved. Agriculture feels that their local agencies should be fully in charge of Ramsar sites as they have jurisdiction on most of the activities affecting the sites. Environment would wish to be at least able to veto decisions which may seriously affect the sites.

Mr. Handrinos, Head of the Environmental Protection Department of the Forest Service (which also belongs to the Ministry of Agriculture), stressed that his service was well organized at regional level, had its own staff of forest and game guards and would, therefore, be qualified to manage and warden Ramsar sites once they have been officially established.

c) Jurisdictional Issues and Enforcement

It increasingly appears that problems of jurisdiction will be crucial in the future for the management of Ramsar sites and enforcement of conservation regulations. In particular the existence of several different bodies of enforcement agents under different agencies, each responsible for the enforcement of a particular set of statutes, sometimes in particular areas, may render the management of Ramsar sites dangerously chaotic. It appears indeed that in addition to the police, forest guards, game guards, and coast guards there are also guards who come under the Ministry of the Interior dealing with problems of illegal land occupancy as well as other guards, under the Ministries of Agriculture and Public Health dealing with land reclamation and drainage. In addition, the 1986 Act on the protection of the environment provides for the establishment of "environmental quality control teams"; specifically empowered to enforce environmental legislation. These teams have, however, not yet been established.
The Goulandris Museum

The meeting with Ms. Goulandris was particularly helpful as it showed the role that an excellent museum can have on the development of natural sciences and scientific research as well as on public awareness of the importance of conservation. In particular a travelling exhibition on wetlands which is still on tour seems to have been very successful. With a little financial assistance the Goulandris Museum could play an even more important role in the development of a greater awareness of the importance of wetlands in Greece.
III) REVIEW OF NEW DEVELOPMENTS SINCE THE FIRST VISIT

Very little has been done to implement the 1986 Environment Act. To be effective, the Act requires the adoption of many Presidential Decrees providing for the necessary implementation regulations. Hardly any have been adopted so far. In particular, nothing has been done to establish the Environmental Agency provided for by the Act. Many people doubt that it will ever be set up.

Much progress has, however, been achieved in the preparation of the Ministerial Decrees protecting the ten Ramsar sites under the jurisdiction of the Ministry of the Environment (the eleventh, Prespa, is already a national park under the jurisdiction of the Ministry of Agriculture). Although none of these decrees have been finally adopted, they have all reached various stages of completion. The most advanced is the one relating to Amvrakikos which has actually been signed by the then deputy Minister of the Environment, Mr. Ktenas. It was not, however, signed by the Minister of Agriculture before the elections and is now presumably awaiting the signature of the new Minister.

It appears that the small and dedicated staff of the Nature Management Sections of the Environment Ministry have achieved significant results in negotiating proposed conservation measures with the local authorities and population. Local opposition seems to have, to a good extent, disappeared and many groups, in particular fishermen have agreed to help. Clearly, the policy of the Ministry was first to obtain local support and to adopt legal rules only when there were good chances that they would be obeyed.

The content of Ministerial Decisions will, of course, vary from one site to another. In each case a detailed map will be attached to the decision showing the boundaries of certain zones. It is intended to subdivide each site into three zones. Zone A will be the core area wherein very few activities will be authorized. Zone B will be a buffer where no intensification of present activities will be allowed. In Zone C, only those activities which will have no impact on Zones A and B will be permitted. All zones will be subdivided into sub-zones, each with its particular rules adapted to its specific conservation requirements. The protected sites will generally extend into the sea as far as the 6 metres isobath to comply with the Ramsar Convention definition.

One should not forget, however, that Ministerial decisions, if and when adopted, must be considered as mere stop-gap measures, valid only for a period of two years (which can be extended to another year, pending the adoption of permanent Presidential Decrees). It is, therefore, essential that work on these decrees be started as soon as possible after the Ministerial Decisions have come into force and that they include provisions on management and enforcement. This will, however, require that solutions be found to the present and extremely intricate jurisdictional problems.

Another development has been the designation of the future A zones of Ramsar sites as Special Protection Areas under the EEC Birds Directive. These designations cannot, however, be fully implemented until the relevant Ministerial Decisions officially protecting the sites have been adopted. They may, however, be useful to prevent further damage resulting from the financing by the EEC of development projects in these areas.
There seems to have been some improvements in the policies and practices of the EEC with regard to Mediterranean Wetlands. The launching of the Mediterranean Coastal Wetlands Integrated Management Programme in 1988, which has a special focus on Greece, contributes an important step towards an integrated management of wetlands and augurs well for the future.

In parallel, the joint project undertaken by WWF, IUCN and the University of Thessaloniki on the conservation and management of Greek wetlands, the meeting held on the matter in April 1989 and the resulting Action Plan have also contributed to an increasing awareness of the necessity of preserving Ramsar sites.

This does not mean that destruction of wetland values within Ramsar sites has come to an end. Most, if not all, Ramsar sites are still under threat from many proposed, and sometimes ongoing developments, as well as from pollution, and most significantly by projects financed by EEC programmes such as IMP, as discussions on individual sites have made clear. Urgent action is, therefore, required.
IV SITE VISITS

Site visits to Axios, Kerkini and Evros have revealed that, largely as a result of the work of the staff of the Nature Management Section, there is now a considerable degree of support for the conservation of these wetlands on the part of many local officials, mayors of neighbouring villages and certain communities such as fishermen. Many problems, however, remain unresolved.

**Axios**: illegal hunting in areas closed to hunting; sand extraction (two heronries have been destroyed, one of them illegally to extract sand in one small island in the river); illegal reclamation for agriculture; illegal construction of houses; proposed canalization of all river banks; increased extraction of water for irrigation, etc. The main problem at Axios, however, is the release into the river of the effluents of the city of Thessaloniki. So far, a primary treatment plant has been constructed. It is, however, not operational as there have been strong protests against the discharge of the water so treated into the Axios. There seems to be general agreement that biological treatment is also necessary. In addition, during the dry season, there may not be enough water to allow the release of any effluent into the river. A minimum flow of water should therefore be assured. This may be very difficult in view of the increased extraction for irrigation both in Greece, and upstream in Yugoslavia.

**Kerkini**: is an inland artificial lake resulting from the construction of a dam for irrigation purposes and flood control. It is very shallow and is filling up rapidly as a result of sedimentation originating from Bulgaria. Five million cubic metres of sediments are brought to the lake each year. It is expected that if nothing is done it will be completely filled in 25 years. The dam was already raised once in 1981 with harmful consequences for the habitats of certain bird species. A second raising appears now inevitable to many of the people concerned if the dam is to continue to fulfil its functions. This will result in further destruction of habitats. It will also provide water for the irrigation of new land in the area scheduled to become Zone B. Once the water is available it is felt that it will be impossible to deny it to farmers and the very purpose of Zone B will then be defeated. On the other hand, if the dam is not raised and siltation cannot be stopped, the whole of the habitat will eventually be lost.

Other problems at Kerkini include the appearance of an alien species (the pumpkinseed, *Lepomis gibbosus* from north America); the illegal felling of trees (particularly serious when used by nesting bird colonies) and illegal hunting. There is also a need for further research to identify the areas where herons and other birds nest and to provide them with effective protection. There is clearly a need to find an acceptable solution to save the lake without resulting in the destruction of valuable habitat. Two possibilities have been mentioned; which are in fact complementary: the building of another dam upstream, mainly to stop the sediments and the cultivation around Kerkini of crops which are less water demanding. Water supply for these crops could be provided from the water table. In any event a thorough and comprehensive evaluation of all possible alternatives is essential, such an evaluation should take into consideration all the functions concerned: hydrological, ecological, economic and social.
Evros: Drainage has so far constituted the main threat to this site. The drainage of the Drana lagoon in 1987 seems to have been particularly damaging. Restoration work is now underway to allow salt and fresh water to flow in as before. The inflow of fresh water has now definitely been re-established. The extent to which similar work has been undertaken for salt water is still unclear. Local fishermen are aware of the need to protect the wetland as this will preserve their livelihood. They will co-operate to control illegal hunting in the core area. Traditional fishing will remain legal. Nine black storks *Ciconia nigra*, were observed during the visit. Their nesting area is, however, unknown. Research into the nesting and feeding habits of this species and probably of other species as well in the Evros delta seems essential. There are plans to bring together in a single coastal national park all the Ramsar coastal sites in Thracia, from Nestos to the Turkish border.
Amvrakikos: The Gulf of Amvrakikos seems to be extremely polluted as a result of the use of fertilizers and pesticides in the surrounding countryside. In addition, pigsties continue to release untreated effluents into the Gulf. The use of fresh water for irrigation has reduced considerably the inflow of fresh water into the lagoons. New extensions of the irrigation schemes are reported to be financed by IMP. Fish farming facilities in the future core area are also financed by IMP.

Mesolonghi: There are plans to divert the water from the Acheloos river to Thessaly. In principle, there should remain a minimum flow of water sufficient to supply the wetland, but there cannot be any guarantee that it will be maintained if the demand for water in Thessaly increases (as for instance during a drought). Other threats include a major fish farm financed by the EEC, the illegal construction of second homes by local inhabitants and the development of irrigation on lands adjacent to the site, also with EEC money (IMP). As a result of this latter development the boundaries of the proposed protected zones had to be altered. Irrigated crops are mainly tobacco and cotton and chemical treatment of these crops will lead to increased pollution.

Nestos: Problems include the construction of second homes in the proposed A zone, the felling of trees in the remaining alluvial forests and poaching.

Kotichi: Planning permission has been granted for the construction of a large hotel.

Prespa: As a result of drought and of the irrigation of adjacent farmland, financed by the EEC, there has been a lowering of the water level of the lake. The colonies of the two species of Pelicans that breed at Prespa are now accessible by foot. There has also been some uncontrolled burning of reed beds. There are plans to construct a hydroelectric power station.
VI CONCLUSIONS AND RECOMMENDATIONS

1. The adoption of Ministerial Decisions for all Ramsar sites in Greece (except Prespa) should be vigorously pursued.

2. As these decisions will only be temporary, work on the preparation of the Presidential Decrees required for each site should start as soon as possible. Presidential Decrees should in particular establish a management body and require a management plan for each site. They should also provide for enforcement measures.

3. The masterword is "integration". It will, however, remain an empty word without an appropriate legal framework providing for integrated institutions. Present problems are to a considerable extent the result of conflicts or overlapping of jurisdiction. Proper integration consists first and foremost in the settlement of these conflicts in a matter satisfactory to all concerned.

4. The 1986 Environment Protection Act does not attempt to solve these conflicts. On the contrary one would tend to think that it exacerbates them by requiring the concurrence of several ministries for most implementing regulations. This is the legislative transcription of pre-existing conflicts and is not a way to resolve them. The result is that all difficult matters are merely put off until the time has come to prepare a Ministerial Decision or Presidential Decree. Thus the same problems will probably be the subject of protracted negotiations in each individual case.

5. There is, therefore, clearly a need for framework legislation laying down general rules and providing for the instructions required for the integrated management of the sites. Regulations relating to each site, and adapted to its particular characteristics, would then be developed on the basis of these general rules. What is in fact proposed here is a system along the lines of recent Italian regional legislation on protected natural areas which seem to be working satisfactorily.

6. This could be achieved by the means of a Presidential Decree implementing Article 19.5 of the 1986 Act. Another possibility could be to revise the Act itself. Considering that nearly three years after its adoption there are still no Presidential Decrees to provide for its implementation, one may wonder whether the Act itself does not suffer from some basic shortcomings that make it inapplicable in practice. Any revision would then need to take into consideration the need to provide a framework for an integrated management of Ecological Development Areas.

7. Two major points will have in any event to be addressed:

   a) The composition, mode of appointment, and powers of Site Management Authorities. Powers could, for instance, include the following: to make regulations; to buy or expropriate land; to grant permits for some or all activities undertaken within the site boundaries; to pay subsidies; to conclude management agreements; to prepare the management plan and revise it as may be appropriate; to impose administrative penalties, etc. As to composition, many solutions are of course possible. It is, however, important to have a balanced representation of the various interests concerned (government departments, local communities, conservation organizations).
b) Enforcement problems. In view of the many categories of enforcement personnel, each under the jurisdiction of a different department, there is clearly a need to determine a lead agency who would generally be responsible in cooperation with the others. Within protected areas, consideration could be given to the formation of special units within the police or forest guards with special training and responsibilities in the field of nature conservation. This seems to have been done recently within the Guardia civil in Spain and the Carabinieri in Italy. One of these units could be posted in each Ramsar site.

8. The development of management plans, as required under Articles 18.5 and 21.2 of the 1986 Act should go hand in hand with the preparation of the Presidential Decrees relative to each individual site. In addition, Presidential Decrees should, as Article 21.2 allows it, provide for the requirement of an Environmental Impact Assessment in respect of all activities which may unfavorably impact protected sites. There will also clearly be a need to assist the authorities concerned in the development of an appropriate methodology to ensure that Environmental Impact Assessments are comprehensive and adequate.

9. Transboundary problems occur at several sites (Prespa, Axios, Nestos, Kerkini) as a result of pollution, water extraction and erosion taking place in neighbouring countries. Clearly shared water-systems should be managed in cooperation among the States concerned. Two avenues could be explored: existing boundary water treaties between Greece and some of her neighbours and the possibility of using Article 5 of the Ramsar Convention which requires Contracting Parties to consult with each other about implementing obligations arising from the Convention especially in the case of a wetland extending over the territories of more than one Contracting Party (Prespa) or where a water system is shared by Contracting Parties (Axios, Nestos, Kerkini).

10. The key to many of the problems which Greek wetlands are facing lies in the EEC. Although the situation seems to have improved, destructive activities continue to be financed by the Structural Fund or IM. The designation of the core areas of Greek Ramsar sites as EEC Special Protection Areas and the launching of the programme on the integrated management of Mediterranean coastal wetlands will certainly contribute to a further improvement. This may, however, not be sufficient as long as better co-ordination of activities within the Commission itself have not been ensured. Now that the sites have become Special Protection Areas it is, however, possible to use the complaints procedure to try to stop action affecting these sites in violation of community law.

Other measures could include the designation of all Ramsar sites and surrounding areas, including the B and C zones, as Environmentally Sensitive Areas where compensation would be paid to farmers who agree to extensity their activities. Advice is also needed for the type of crops and farming activities which would be the least damaging to protected wetlands and would at the same time maintain farm income. There is also a need for a greater degree of community direct financing of conservation projects under the ACE programme. In a country such as Greece, however, where there is hardly any public or private money available to finance conservation action, the absence of a European Environment Fund is particularly regrettable.
11. The Action Plan Proposal adopted in April 1989 by the joint WWF, University of Thessaloniki and IUCN meeting provides a sound basis for the development of a wetland strategy for Greece. It is essential that the impetus provided by the meeting be maintained. The Action Plan should be submitted to the Greek Government for adoption as a statement of policy and a small committee of scientists be established on a permanent basis to pursue the matter further, as the plan suggests.

12. There would seem to be a need for a Greek Ramsar Committee, composed of representatives of Government departments, scientific institutions and NGOs, along the lines of the committees which have now been formed in other countries, to promote the implementation of the Convention, identify major problems and seek solutions. The scientific committee referred to in the previous paragraph should be represented on the Ramsar Committee.

13. In view of the importance of the elimination of present legal impediments to conservation action and of the development of appropriate legislation for integrated management, the establishment of the small group of environmental lawyers, along the lines of recommendation 8 of the first Monitoring Procedure Report, should be actively pursued. The group could, inter alia, examine the legislative basis for integrated management which has been developed in other countries, for instance in Italy, and consider how such legislation could be adapted to the particular situation of Greece. A representative of the legal working group should sit on the Ramsar Committee.

14. Public information and education on the importance and values of Greek wetlands are of fundamental importance. The Goulandris Museum seems to be particularly competent and well placed to prepare the necessary material and organize exhibitions and awareness campaigns. Some financial assistance from the international conservation community would, however, be needed.

15. NGOs are now playing an increasingly important part in the development of conservation action in Greece. Most NGOs, however, are based in Athens with few opportunities of intervention at local level. The institution of local NGOs, or of local branches of national NGOs, should, therefore, be encouraged with the assistance of the international conservation community. The leading role of "Friends of Prespa" in the defence of this endangered Ramsar site is a good example of what such NGOs could do.

16. It is important to continue to seek financing from outside sources for specific projects relating to the conservation of Greek wetlands and, in particular, of Greek Ramsar sites. Such projects should include education and training and the development of management plans.

17. The Ramsar Bureau has been grateful to the Greek authorities for their cooperation under the Convention's Monitoring Procedure, and looks forward to further collaboration in the future.