Ramsar Advisory Missions: Report No. 2, Tablas de Daimiel, Spain (1988)

Special attention is given to assisting member States in the management and conservation of listed sites whose ecological character is threatened. This is carried out through the Ramsar Advisory Mission, a technical assistance mechanism formally adopted by Recommendation 4.7 of the 1990 Conference of the Parties. (The Ramsar Advisory Mission mechanism was formerly known as the Monitoring Procedure and the Management Guidance Procedure.) The main objective of this mechanism is to provide assistance to developed and developing countries alike in solving the problems or threats that make inclusion in the Montreux Record necessary.

Ramsar Convention Monitoring Procedure

Report No. 2: Tablas de Daimiel, Spain

Please reply to: IWRB, GB-Slimbridge, Glos. GLS 7BX

Background

1. When Spain became a Contracting Party to the Ramsar Convention in 1982, it designated two wetlands for the List, the national parks of Daimiel and Doñana. A third site, Fuente de Piedra, was added in 1983.

2. The Daimiel National Park, in the Community of Castilla - La Mancha, covers 1812 hectares. It is situated at the confluence of the Guadiana and Ciguela rivers and is an extensive area of reedbeds with low islands skirted by old tamarisks. Some 60 kms to the northeast, the Ciguela runs through a series of sb,laller lagoons (the 'La Mancha' 1agoons) which are fed by rainfall and from the overflow of the Ciguela River and its tributary the Riansares.

3. For some years there has been a problem of water supply to Daimie1, as recognised in the Spanish national reports to the Groningen (May 1984) and Regina (May 1987) Ramsar conferences. The Groningen report indicated (Proceedings p.420 English version) that "the situation in the Tablas de Daimiel National Park is critical. The Park's water source is the great "sistema 23" aquifer which extends over several thousands of square kilometres. Water is being pumped from the aquifer for irrigated lands faster than can be replenished, and causing a steady fall in its level. Consequently, the Park's water supply, which was once assured, went dry in the summer of 1983 until the spring of 1984. Even now after a good year for rain, only half of the area has water. According to hydrological studies, the Park could be reduced to a seasonal mudflat. " The Regina report (original French) indicated that "the factors which are responsible for the present situation and which condition the continuity of the Park can be resumed as:

a) over-exploitation of the aquifer of the plain of La Mancha;
b) diminished river-flow.

The persistence of these two facts is the principal reason for the critical state of the Park, which is in the same situation as in previous years. To solve this grave problem, the Administration has developed a Water Restoration Plan for "Las Tablas" whose principal action points are as follows:

a) to keep water courses which feed Las Tablas free of artificial obstacles, and to eliminate illegal diversion and damming of the course of these rivers. The principal object of this action is to restore, to the Park and its environs, volumes of water which flowed naturally under previous conditions. The careful conservation of the natural morphology of the water courses cancerned - based on the non-modification of their route, their gradient, their width and their depth - constitutes a necessary condition of the execution of the work. This is the rule, both to ensure correct functioning of the water transferred from the Tagus-Segura rivers (see note b) and to restore the local hydrographic network to its natural state.

The decrease in the water level of some lagoons, which results from the action described above, presupposes an increase in several others which were previously in a critical situation, and the free circulation of water in rivers previously modified by the diversions carried out;

b) to bring excess waters from the Tagus-Segura rivers to "Las Tablas", by using the water courses in the upper Guadiana basin, when the transfer aqueduct crosses these water courses. The Spanish Government has presented a bill to the Cortes (Legislation chamber) on the execution of this alternative;

c) to construct a number of wells to ensure the volume of water necessary to maintain the water level. This action represents a transitional measure until the work mentioned above is completed;

d) to maintain the actions already begun to clean waste urban waters which might reach "Las Tablas";

e) to construct the "Canal" dam on the Bullaque river and carry a controlled debit to ‘"Las Tablas".

4. At the Regina Conference, document C.3.6 (Review of national reports and of implementation of the Convention), prepared by the Bureau, drew attention in paragraphs 74 to 106 to possible or actual changes of ecological character at listed Ramsar sites. Paragraph 107 summarised this information and listed the sites where the likelihood of major ecological change seemed greatest. Daimiel was one of the sites listed in paragraph 107. During discussion of document C.3.6 (Summary Report of Plenary Session document PLEN C.3.8), the Spanish delegation noted that threats to wetlands in Spain represented one of the most serious conservation problems for the country. On the basis of the discussion of document C.3.6, the Regina meeting approved a Recommendation (C.3.9), urging Contracting Parties to prevent further degradation of sites and to restore the value of damaged sites and requesting Contracting Parties in whose territory are located the sites identified in document C.3.6 to report to the Bureau the actions undertaken to safeguard these sites.

5. At the Conference on the legal aspects of wetland conservation, held at Lyon from 23-26 September 1987, José Enrique Garrido of the Spanish Ministry of Public Works presented a

paper on the measures adopted for the conservation of Daimiel. This paper included a copy of Law 13/1987 of 17 July 1957 on Diversion of volumes of water from the upper basin of the Tagus for the Tablas de Daimiel national park. The late, referring to Spain's obligations under the Ramsar Convention , gave full expression to concern over the conservation of the park, authorised a total of 60 million cubic metres of water to be transferred to Daimiel for an experimental period of three years, with an annual maximum of 30 million cubic metres, and authorised the necessary funding. Garrido's paper also noted other factors related to Daimiel:

as a definitive, long-term solution, water could be drawn from the Canal dam on the Bulfaque;

the transfer of water via the Tagus-Segura aqueduct, accompanied by cleaning of the beds of the rivers flowing into the park, is a short-term solution to ensure the survival of the park in the immediate future;

also as a short-term solution, to avoid further fire risks (the dried vegetation and peat caught fire seriously in September 1986 and on a smaller scale in March 1987), a number of wells may be dug in the immediate environs of the park;

as a complementary measure, an official declaration of over-exploitation of the aquifer of the plain of La Mancha was made by the Guadiana catchment authorities on 4 February.

6. Despite these measures, the Ramsar Bureau has continued to receive reports from a variety of sources all expressing concern at the potential modification of ecological character of the Daimiel Ramsar site. In particular they argued that it was inappropriate to modify the character of the complex of lagoons in northeast La Mancha round Alcarar de San Juan and Villafranca with the object, unlikely to be realised, of restoring Daimiel, some 60 kilometres away.

7. As a result of these reports, I took the opportunity, during a meeting on Spanish wetlands from 23-25 March 1988, held in Daimiel, to visit the park, in the company of officials of ICONA and the communities (including Castilla - La Mancha), and to carry through the monitoring procedure on listed Ramsar wetlands, approved by the Ramsar Standing Committee in January 1988. On 26 March 1988, I also visited the lagoon complex in the area of Alcarar de San Juan, in order to assess the situation there.

Current situation at Daimiel

8. Winter 1987/88 produced good rainfall over La Mancha, so that Las Tablas de Daimiel, after drying out completely again in 1987, as I understand they have done every year since 1982, now hold moderate to good levels of water. These are being complemented by inflow through the Ciguela River, from the Tagus-Segura. It is confidently predicted that Tablas de Daimiel will not dry out in 1988.

9. Agricultural exploitation is continuing right up to the edge of the park (the buffer zone is a non-hunting zone, which does not preclude agricultural use). In addition to traditional vineyards, there are extensive fields of cereals, especially barley and maize, many of which are currently receiving water from wells through moveable sprinklers or massive cantilever structures transporting pipes. The declaration of over-exploitation does not prohibit use of existing wells,

only drilling of new ones. This agricultural development has occurred since the late 1970s, and does not seem to be directly related to Spain's entry into the EEC in January 1986.

10. However the transfer from the Tagus-Segura, and the winter rains will undoubtedly have replenished ground water to some extent.

11. A retention structure is currently being constructed at the lowest (southwestern) end to hold in the water coming from the Tagus. This takes the form of a low earth wall, a few metres high and perhaps a kilometre wide across the valley. Work began after the rains in February and is expected to be completed in a month or two.

12. The course of the Ciguela has been cleaned out and cleared of obstacles over a long distance - some 60 or 70 kms, to the lagoon area round Villafranca. The Spanish authorities maintain that the river's course has not been changed at all, nor has it been widened or deepened. It has simply been cleaned out, and the resulting spoil has been placed on the riverbank alongside.

13. The cost of these operations is estimated at the considerable sum of just over 200 million pesetas (= about 1 million pounds or 2.5 million Swiss francs). It is intended that they should provide a temporary solution, while the long-term problem of over-exploitation of the aquifer is addressed, and a decision is taken on construction of a new dam on the Bullaque (northwest of Daimiel).

Current situation at the La Mancha lagoons

14. At the meeting in Daimiel from 23-25 March 1988, considerable interest was shown in the La Mancha lagoons. It was clearly stated that they are of international importance and should be included, either as a complex or in some cases (notably Taray and Pedro Munoz) as individual sites, in the Ramsar List.

15. The lagoons are situated over a different aquifer from Daimiel ("sistema 24"), which does not currently suffer from over-exploitation (though I saw some tell-tale sprinklers, which suggest an incipient danger). Some (mainly those north of Villafranca) are fed by overflow of the rivers Riansares and Ciguela at their confluence; others (with much sparser vegetation, a higher salt content and which are reminiscent of north African Sebkhas) are valley-bottom depressions fed largely by winter rain.

16. The lagoons north of Villafranca (especially Arroyo Moron, Masegar, Quero (or Santos), Molino Abogado, Pastrana and Presarrubias) were originally part of the flood plain of the Ciguela and were inundated in late winter and spring by winter rain and snow melt. They retained water into, and sometimes throughout, the summer and provided breeding-grounds for waterfowl. In recent years they have been altered by the construction of deep channels connecting them with the river and by the building of embankments to retain the water. They were thus filled earlier in the winter and provided habitat for wintering ducks and opportunities for shooting.

17. The operation to clean out the Ciguela and to remove obstacles in its bed has severely affected the lagoons modified by the construction of deep channels. Most were dry during my visit, and seem likely to remain so, the more so as the Spanish authorities maintain that the

owners had no right to extract water from the Ciguela. Those lagoons where the owners did have a legal right to extract water (Vadancho, Villafranca Chica and Villafranca Grande) were in excellent condition during my visit. In addition, Masegar which is very close to the Ciguela and floods easily when river levels are high as at present, was 60% covered in shallow water and seemed likely to have some water all summer. Furthermore Taray, a miniature Daimiel, which receives water naturally, was in excellent condition.

18. Status of individual lagoons in the Villafranca Alcazar area:

a) Taray: undoubtedly the most important of the Villa-franca group. A privately owned area of reed-bed and shallow water covering 240 hectares. Water levels excellent. Privately owned and shot.

b) Masegar: floodplain area between Riansares and Ciguela, currently extensively flooded.

c) Vadancho: an area of flood-plain where the owner has water extraction rights. Shallowly flooded, in excellent state.

d) Quero and Mofino Abogado: artificially bunded areas of recent construction, fed by channels dug from the Ciguela. Quite dry during my visit.

e) Arroyo Moron, Pastrana and Presarrubias: I did not visit these lakes but was assured they are in the same condition as Quero and Molino Abogado.

f) Villafranca Chica and Villafranca Grande: deeper lakes which are authorised to extract water. Full, [text missing] levels appeared excellent.

g) Tirez, Penahueca and Yeguas: salty, valley-bottom depression lakes, visited very rapidly. Held some water after the winter rains.

19. Status of individual lagoons in the Pedro Munoz area:

a) Pedro Munoz: small lagoon (30 ha), spring fed, by the village of that name. Water levels excellent, breeding birds gathering. The lagoon has recently been purchased by the Community of Castilla - La Mancha for management as a nature reserve. The rubbish round the edge and the stone track through the middle will be removed and an observation point and visitor centre will be constructed.

b) Manjavacas: large valley bottom basin (over 200 ha) with inflow of waste water from nearby village. Some water from winter rains; waste water inflow attracts birds but destroys the small reed-beds. Community of Sastilla-La Mancha has recently authorised a British resident to prevent disturbance by building an electric fence round it. He has also recruited two British bird-watchers to record bird passage for three months.

Conclusions

20. The Spanish authorities have clearly taken their Ramsar undertakings extremely seriously, and have adopted a series of measures - legal, financial and on the ground - to restore the water supply to Daimeil. These measures (cleaning of the Ciguela, transfer of water from the Tagus-

Segura basin, construction of a retaining structure at the southwest end of the park and drilling of a small number of wells for immediate supply in case of fire) appear to have solved the immediate problems.

21. Whether the solution will work in the long-term will depend on controlling use of underground water in aquifer 23. The declaration of over-exploitation appears to have had little effect so far. The Spanish authorities are naturally anxious to maintain the good-will of the local farming community. This community is currently well disposed towards the National Park, since the transfer of water has improved water supply in the area and to some extent replenished aquifer 23. This is clearly an extremely sensitive issue - during my visit, national television showed police intervening in a water supply dispute in a neighbouring village. It is more a long-term matter of wise use, which can only be solved over a period. If the Canal dam is built on the Bullaque, this could provide a new and permanent solution.

22. The current Daimiel Water Regeneration Plan will allow diversion of water from the Tagus-Seguro basin for three years. As yet there are no plans for detailed monitoring of its effects, though the Park staff includes a graduate biologist and geographer. It seems a pity that such an important and innovative scheme, in an area like the Mediterranean whose wetlands are under extreme pressure, should not be monitored by a multi-disciplinary team. Investigations should cover not only ornithology and botany but should give priority to hydrology, using up-to-date satellite techniques already used elsewhere in the Mediterranean. The forthcoming Hydrological Conference in Seville, organised by Prof Llamas of Universidad Complutense, Madrid, would be an opportunity to discuss this further.

23. Despite the considerable efforts made by the Spanish authorities to maintain the ecological character of Daimiel, the Ramsar Bureau continues to receive comments to the effect that the La Mancha lagoons have been dried out in a vain attempt to save Daimiel. On the basis of my short visit it is clear that the Spanish authorities are anxious to maintain the principal La Mancha lagoons too. Several of the best lagoons have been maintained in their original state; lagoons have only been dried out when their owners had no rights to extract water from the Ciguela. Any monitoring programme should aim to give a dispassionate answer to the controversial question: would it have been better to have maintained artificial La Mancha lagoons, even if their owners had no right to water?

Recommendations for further action

24. a) The Daimiel National Park authorities, in collaboration with local authorities and water users, should seek a long-term solution to the problem of over-exploitation of Aquifer 23, paying special attention to the application of the Declaration of over-exploitation of 4 February 1987.

b) A multi-disciplinary scheme should be established in collaboration with Spanish and other universities to monitor the effects of the Daimiel Water Regeneration Plan, both in the medium term (next three years) and in the long-term. It should pay particular attention to the effects on the La Mancha lagoons round Villafranca.

c) National and community authorities should give high priority to further conservation measures, including Ramsar listing, of the La Mancha lagoons. Such measures should include dispositions to prevent future over-exploitation of the aquifer.

M Smart
7 April 1988