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## A strategy to stop and reverse wetland loss and degradation in the Mediterranean Basin



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The region of Friuli-Venezia Giulia, in NE Italy, was recently host to one of the most successful IWRB conferences to date in the ancient and picturesque town of Grado. Much of its success was due to the unstinting work of Dr Franco Musi of the Region's Directorate of Forests and Parks. Friuli-Venezia Giulia is a relatively small "autonomous" Region, and was among the first in Italy to notify sites under the Ramsar Convention. It is proposed to incorporate all the Region's major wetlands into a series of regional parks, so as to unify planning and reduce conflict between different user-groups.

During the symposium, a strategy was developed to address the loss and degradation of Mediterranean wetlands. A précis of that strategy has recently been published in French, Italian and English.

This strategy is designed to **stop and reverse the loss and degradation of Mediterranean wetlands** and is directed to all people working for the protection and sustainable use of wetland resources in the Mediterranean.

Mediterranean wetlands provide benefits to the people of the basin and beyond, and are a priceless part of the Mediterranean cultural and natural heritage. This heritage must be treasured and conserved for posterity. This vital resource, now as threatened as the tropical rainforests, must not be squandered.

There has been a massive loss of wetlands in the Mediterranean basin. The rate of destruction seems to have accelerated this century and has been rapid over the past 40 years. Not even wetlands with statutory protection are safe.

The strategy aims to maintain and, eventually, to enhance the wetland resources of the Mediterranean,

and requires that the remaining wetlands must not be transformed or degraded. In addition, every opportunity to rehabilitate or restore former wetlands should be taken to ensure sustainable utilisation of the wetland resources and conservation of the flora and fauna.

Many wetlands are under constant threat of destruction. The problems are so numerous, so urgent and so pervasive that they must all be tackled simultaneously, urgently and at all levels. There must be concerted action to address the social, economic and political causes of wetland loss and degradation.

The next section identifies the factors that must be addressed to achieve the above goal.

### PRIMARY FACTORS

#### *Population and resources*

Large increases in the human population place greater pressures on wetlands. Along with this population increase there has been an increase in material demands by individuals. Population size and material aspirations must be considered together.

Continually increasing agricultural and industrial output can be very destructive to wetlands. Incessant development leads irrevocably to incessant habitat destruction. Thus, the goal of stopping and reversing wetland loss and degradation is only achievable if the dogmatic calls for more economic growth are muted.

#### *Attitudes and awareness*

Only by mobilizing public opinion and making people aware of wetland values and the threats to these values will Mediterranean wetlands be saved.



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## SECONDARY FACTORS

### *Integrated management*

Due to the relative paucity of water in the Mediterranean region, rivers and aquifers that support wetlands are always subject to water resource management schemes. Water pollution is also a serious problem for wetlands. A balanced ecological approach is needed to integrate human needs for water with wetland conservation.

Catchment and wetland management in the Mediterranean region often need to be undertaken in an international context because of the many rivers that cross national borders. Further attention must be devoted to river management issues.

Wetlands and their catchments should be managed in an integrated way. This means close collaboration between conservation agencies and other agencies concerned with the wetland and its support system. Research and conservation should proceed simultaneously.

### *Policies and legislation*

National agencies and local communities require a consistent and effective legal structure that can be used to stop and reverse past wetland losses. The EC has no wetland conservation policy, although the Birds Directive provides a *de facto* policy. Standards for wetland protection must be developed at EC and national levels.

### *Subsidies and disincentives*

EC policies encourage agricultural intensification and irreversible development of wetlands which may lead to drainage of wetlands, ground water loss and excessive chemical inputs to wetlands. Subsidies for drainage are inappropriate; no new wetland drainage schemes should be undertaken and the need for existing schemes reconsidered.

### *Non-governmental organizations*

Non-governmental organizations have a vital role to play in wetland conservation. Their freedom and flexibility; their generally committed staff and supporters and their closeness to issues, sites and the public mood lend them great strength.

### *Development banks and aid agencies*

Aid agencies and development banks are now sensitized to environmental considerations in as many

projects as possible. Technical advice should be made available to assist these banks and agencies on environmental, administrative, economic and legal aspects of managing wetlands.

### *Education and training*

There are not enough trained wetland conservationists in Mediterranean countries. A more concerted approach towards training and education at a variety of levels in Mediterranean wetland conservation is needed.

### *Hunting*

Although hunting does not increase wetland loss, waterfowl hunting can degrade Mediterranean wetlands through sectoral habitat management, disturbance and direct effects on waterfowl populations.

In the absence of an adequate knowledge of the relationship between the numbers of birds harvested and population dynamics of waterfowl, a reasonable approach to hunting management is a conservative 'risk-averse' strategy.

### *Research and monitoring*

To date most wetland research has been undertaken by biologists. Future emphasis needs to be given to research: (i) which stimulates new policies that foster conservation of wetlands; (ii) into the effectiveness and adverse consequences of existing policies which facilitates more effective conservation activity.

## KEY ISSUES FOR MEDITERRANEAN WETLANDS

The strategy touches upon a wide range of issues which relate to Mediterranean wetlands. This section outlines some tactical steps which can be taken to address specific issues. The aim is to promote the conservation of wetlands throughout the Mediterranean basin.

### *Critical sites*

A small number of large wetlands remain in the Mediterranean which have not been substantially damaged or irreversibly changed by recent human activity. However, all of them are subject to intense development pressure. These critical sites of global importance must be maintained for their natural riches and the resources they provide.

### *Rehabilitation and restoration*

The destruction and degradation of Mediterranean wetlands is so severe that schemes should be launched



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to restore degraded wetlands, and to reinstate their valuable functions. The problems of wetland restoration must not be underestimated. Experience has shown that rehabilitation of existing wetlands is more likely to be successful than the restoration of destroyed wetlands. Similarly, the experience of artificially creating wetlands has not always been positive.

A programme of rehabilitation, restoration, and perhaps creation, is needed to improve the quantity and quality of Mediterranean wetlands.

#### *Fisheries and agriculture*

Fishing was formerly the main activity in freshwater lakes, large rivers and lagoons within the Mediterranean region. However today, traditional fishing has either disappeared or become a marginal activity. The main factors involved in the decline of fisheries are: habitat degradation, pollution and eutrophication, introduction of exotic fish and over-fishing. Intensive aquaculture has led to increasing eutrophication and accidental release of non-native species. Most aquaculture in Mediterranean lagoons involves shellfish culture. In contrast to what decision-makers believed, fish-farming is not the panacea for economic development of all lagoons systems.

#### *The salt industry*

Salt extraction has been associated with Mediterranean countries for centuries. Salt pans support important animal communities, particularly waterbirds that use them for breeding, wintering and as 'refuelling' sites during migration. Many Mediterranean salt pans are threatened. Except for France and Spain many salt pans are being abandoned and then totally degraded, transformed for agricultural purposes, destroyed for industrial development and urbanisation, or more recently, transformed into fish farms.

#### *Tourism*

Tourism has contributed greatly to the destruction and degradation of Mediterranean wetlands. However, one of the values of wetlands to local people lies in their economic potential for tourist activity. Well planned and well managed tourism has the potential to be compatible with the conservation of wetlands.

#### *Pollution*

Nutrient enrichment is one of the most general forms of wetland pollution. Coastal waterbodies can suffer from severe eutrophication; they are also shallow and irregularly flushed and so large beds of foul smelling

algae can develop.

Most industrial pollution in the Mediterranean originates from the petrochemical industries that have contributed an enormous amount to the prosperity of the basin. Transport and refining oil is a well recognised pollution threat to coastal wetlands. Disposal of wastes is a complex problem and there is always the risk of spillages that spread, resulting in severe pollution some distance from the source.

### IMPLEMENTING THE STRATEGY

The loss and degradation of Mediterranean wetlands is so severe and so urgent that action is needed immediately, simultaneously and at all levels throughout the Mediterranean region.

#### *Regional Actions*

Many international organizations are involved with the conservation of Mediterranean wetlands. Effective and enduring partnerships between these groups will be essential if the goal of the Strategy is to be achieved. Most countries of the region are Contracting Parties to the Ramsar Convention. The Convention should be further strengthened as a tool for conserving Mediterranean wetlands.

#### *Mobilising National Actions*

Although the goal and strategy are aimed at conserving wetlands throughout the Mediterranean Basin, most actions will occur at the national level through both governmental and non-governmental organisations. It is vital that these groups co-operate.

#### *Mobilising People*

It is imperative that local communities are involved in the conservation and sustainable development of their local resources. Local communities used to organize, strengthen and apply their own capabilities for the care of their environments and the satisfaction of their needs. Secure access to resources, equitable shares in managing resources, a clear sense of responsibility, and education and training are required.

### ACTION PLAN

An Action Plan is currently being developed on the basis of this strategy, which will identify the key steps that must be taken to address the goal. Details of this Action Plan will be presented in a future issue of IWRB News. For copies of the Strategy, please write to IWRB, Slimbridge, Gloucester GL2 7BX, UK.

