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**Islamic Republic of Iran**  
**National Wetland Conservation Strategy**  
**and Action Plan**

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**May 2011**

**Department of Environment with the assistance of the  
Conservation of Iranian Wetlands Conservation Project**

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## 1. Introduction

There are a considerable number of wetlands in the Islamic Republic of Iran and some have been recognised as being of international importance and are listed under the Convention on Wetlands of International Importance, known as the Ramsar Convention as it was signed in Ramsar, Iran in 1971. However, many of the wetlands in Iran are suffering adverse effects of different activities which are degrading these very important resources for nature and for the economy, health, food and tourism. Conservation actions to date have not prevented or compensated for the deterioration of wetlands and the efforts have been sporadic and ineffective.

In response to the deterioration of Iranian wetlands, the Department of the Environment in Iran and the United Nations Development Programme /Global Environment Facility developed a project to demonstrate how to conserve wetlands so as efforts can lead to the conservation of biodiversity and healthy ecological systems, managed and used wisely by people. The *Conservation of Iranian Wetland Project* (CIWP) commenced in 2005 and will end in 2012. To date the project has focussed on the development and application of the ecosystem approach at three contrasting wetlands. At these three sites the project has adopted a cross-sectoral and participative approach and has demonstrated how to rehabilitate and conserve wetlands whilst achieving ecological and socio-economic goals. The ecosystem approach adopted by the project has been utilized in different ecosystems and various regions around the world.

### **Ecosystem Approach**

The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. Thus, the application of the ecosystem approach will help to reach a balance of the three objectives of the Convention on Biological Diversity: conservation; sustainable use; and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

In the following table, the characteristics of the ecosystem approach are compared with a more traditional approach. It indicates clearly the limitations of the traditional approach and highlights why the ecosystem approach helps to overcome the challenges of simultaneous conservation and sustainable use.

<b>Ecosystem approach</b>	<b>Traditional approach</b>
<ul style="list-style-type: none"> <li>- Management is societal choice</li> <li>- Management is decentralized</li> <li>- Take account of adjacent ecosystems</li> <li>- Environmental and economic context</li> <li>- Conserve ecosystem functioning</li> <li>- Manage within ecosystem limits</li> <li>- Manage at ecosystem scale</li> <li>- Manage for the long term</li> <li>- Change is inevitable (proactive)</li> <li>- Conservation and sustainable use</li> <li>- Use all forms of knowledge</li> <li>- Involve all stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>-Management is an administrative affair</li> <li>-Management is both centralized and concentrated</li> <li>-Take account of protected areas merely</li> <li>-Environmental context</li> <li>-Conserve species (mostly fauna)</li> <li>-Manage within protected areas</li> <li>-Manage at habitat and protected area scale</li> <li>-Manage for the short term</li> <li>-Resistant to change (passive)</li> <li>-Conservation and protection, resistant to use</li> <li>-Ignorant of traditional knowledge</li> <li>-Oppose any participation</li> </ul>

In order to build upon the achievements at the three demonstration wetland sites the Department of the Environment and the project identified the need for a national wetland conservation strategy and action plan. This strategy and action plan should ensure that the ecosystem approach is implemented across all Iranian wetlands so that they are sustainably managed in the future, biodiversity is conserved and people are able to benefit from healthy and productive ecological systems. The strategy and action plan should also help to raise the profile and importance of wetlands and their multiple values to society. It should facilitate a cooperative approach and provide clear direction and a set of priorities for all parts of Government whose activities affect wetlands. It will assist the development of a more integrated approach to the way land and water is managed. Wetlands should contribute to the social and economic health of the nation. This strategy and action plan is a framework that provides a clear long term vision for Iranian wetlands; sets the overall goals and identifies the priority actions that need to be taken or led at a national level to achieve these goals.

This strategy is the result of two years collective work of a large number of managers and experts. A series of workshops have been held from 2007 to 2010 with participants from different Government Offices, Non-Governmental Organisations and local communities. These workshops explored the use of the ecosystem approach and the lessons learnt from the three demonstration wetland sites. Participants developed the vision, goals, implementing strategies and the

action plan. It has been the subject of extensive consultation with different parts of Government and all key stakeholder groups.

Whilst this document was being prepared, articles 187, 191 and 193 of the 5<sup>th</sup> National Development Plan (2011- 2015) law was approved by the Parliament which granted an important, explicit and unprecedented status to wetland conservation.

## 2. Overview of wetlands in Iran

There are a variety of definitions for wetlands. For the purposes of this strategy and action plan the Ramsar Convention definition of wetlands is used: *"Areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static, flowing, fresh, brackish or salt, including areas of marine water, the depth of which at low tide does not exceed six meters"*.

Based on the Ramsar Convention definition of wetland, there are hundreds of natural and human-made wetlands in Iran. They are rich in biodiversity. Of the thirty-nine basic types of wetlands, all except Alpine and Tundra, are found in Iran.

Regarding geographical location, Iran is located at the intersection of two main global routes of birds' migration. Hence, Iranian wetlands are of great importance in supporting bird migration.

Among Iranian wetlands, eighty-four have been recognized as of international importance and twenty-four are listed as Ramsar Convention sites. There are more than 1800 Ramsar sites around the world and Iran is ranked as the 19th country among 150 members of the Convention for the number of designated wetlands. Unfortunately, as a result of drought, mismanagement, and reduction of water inflows a considerable number of Iranian wetlands have been degraded in recent years. This situation has led to degraded biodiversity and a reduction of ecological functions, which in turn has caused socio-economic damage. Wetlands are important, and sometimes essential, for the health, welfare and safety of people who live in or near them. They are amongst the world's most productive environments and provide a wide array of benefits. These benefits are often referred to as ecosystem goods and services.

### ***Wetland Goods***

Wetlands frequently provide tremendous economic benefits, for example:

- water supply (quantity and quality);
- fisheries (over two thirds of the world's fish harvest is linked to the health of wetland areas);
- agriculture, through the maintenance of water tables and nutrient retention in floodplains;
- timber and other building materials;
- energy resources, such as peat and plant matter;
- wildlife resources;
- transport;
- a wide range of other wetland products, including herbal medicines.

### *Wetland Services*

The interactions of physical, biological and chemical components of a wetland, such as soils, water, plants and animals, enable the wetland to perform many vital functions, for example:

- water storage;
- storm protection and flood mitigation;
- shoreline stabilization and erosion control;
- groundwater recharge (the movement of water from the wetland down into the underground aquifer);
- groundwater discharge (the movement of water upward to become surface water in a wetland);
- water purification;
- retention of nutrients;
- retention of sediments;
- retention and purification of pollutants;
- stabilization of local climate conditions, particularly rainfall and temperature;
- recreation and tourism opportunities.

Despite the sizeable number of wetlands in Iran and their ecological, social and economic importance, accurate and precise knowledge on the impacts of both anthropogenic and natural factors need to be investigated. Followings are facets of the impacts on wetlands.

- Salinity increase of water to the degree that has endangered vitality of rare and endemic *Artemia Salina urmian* in Uromieh Lake as a unique species (Uromieh Lake).
- Decreased of stock of wetland biota, birds, fish, vegetation (many wetlands).
- Significant impacts on wetlands has degraded its function as stand for migratory birds which damages and force them to find another habitat (wetlands across the country).
- Habitat fragmentation is another significant impact that mostly resulted from road construction. This has disrupted integrity of habitat and led to loss of biodiversity (examples include Anzali, Uromieh).
- Eutrophication (nutrient enrichment) of wetlands, especially those which are near urban settlements, agricultural and industrial activities and receiving pollution through rivers (Anzali, Norouzlo, Gorigol, Ghara-gheshlagh, Shadegan and many others).
- Decrease of water which disturb wetland ecosystem through water withdrawal and drought (many wetlands)
- Increase of vulnerability of wetlands through change of compatible surrounding land use which functions as a buffer zone (Dorge-sangi, Meimand, Agh-gol, Bournalan, Zaghmarz, Fereidounkenar, and many others)

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- Disturbance and disruption of hydrodynamics of the wetland (Uromieh, Anzali, Zarivar).
- Damage to the endemic and natural species, fauna and flora through introduction of alien species (Azola in Anzali, Amirkalaye, Valasht, Alagol, fish in Zarivar).
- Annual death of sizeable number of fishes and migratory aquatic birds due to unknown causes (Amirkalaye and many others).
- Disturbing wetland landscapes (Zaghmarz).
- Dried wetlands (such as Jazmourian, Parishan).
- Shrinkage of the area of the wetlands (Hashilan, Ovan, and many others)
- Due to the drying of wetlands, adjacent land suffer damage (Gorigol, Tashk and Bakhtegan and many others)
- Decline of photosynthesis by aqua flora as a result of sedimentation and water turbidity
- Cutting of mangrove trees
- Damage to the coral reefs and habitat of turtles (coastal wetlands)

Actually, each wetland is experiencing several of these impacts. It means that cumulative impacts are affecting biodiversity of the wetlands. Therefore, it is very important that recommended actions are implemented simultaneously. More inquiries can illuminate the severity of the damage to the ecological condition of wetlands.

Of course, none of these are unique to Iran and similar problems are experienced in many other countries.



### 3. Vision and goals for wetlands

Based on the ecosystem approach and the present situation of wetlands in Iran, a 10 year vision has been prepared. It encompasses the main elements for the achievement of healthy wetlands. Vision corresponds to the strategic vision of the I.R.Iran (2026), therefore it meets strategic national goals.

#### **10 YEAR VISION**

Awareness of the economic, social and ecological values of wetlands is high throughout Iran. Wetlands now make a real contribution to the economy and people's lives, and nature (biodiversity) is flourishing. Decision makers are pursuing sustainable development through integrated approaches to land and water management which take account of the impacts of climate change. Sufficient water is now reaching all wetland ecosystems. Local communities and individuals are participating in decisions affecting their wetlands and as a result there is effective management, conservation and sustainable use of wetland resources.

#### Goals

To achieve the vision, five goals have been identified. These goals are inter-dependent and all of them are important for achieving the vision.

## Goals

1. Prevent further loss and degradation of the nation's wetlands by removing threats, ensuring appropriate water allocations and encouraging restoration and rehabilitation, so as to maintain their functionality and conserve their biodiversity.
2. Ensure that the enjoyment and economic use of the nation's wetlands become sustainable, through effective use of Environmental Impact Analysis (EIA) and emphasis on ecological capability and carrying capacity.
3. Ensure that this National Wetland Strategy and Action Plan, as well as any programmes formulated under it, are linked to other land, soil, water, air, wildlife conservation and economic development policies in order to secure the wise use of the nation's wetlands
4. Ensure national and international wetland conservation responsibilities are fulfilled, including transboundary wetlands, shared water resources and migratory species.
5. Ensure adaptation of wetland management to climate change

#### **4. Implementation strategies and action plan**

Eight implementation strategies have been formulated. They all complement each other and implementing all of them is essential to achieving the goals and realising the vision.

##### **Implementation Strategies**

1. Establishment of integrated management within and among local, provincial, watershed, and national levels based on the ecosystem approach.
2. Awareness raising of people and decision makers on wetland values.
3. Ensure wetlands receive enough water to be sustainable.
4. Sustainable use of wetlands (inside the actual wetland, the surrounding areas and upstream).
5. Ordain and modify laws, regulations and policies to support wetland conservation.
6. Study and research on socioeconomic and ecological characteristics and processes of wetlands.
7. Establishment of participatory monitoring and evaluation for wetland conservation based on up-to-date data.
8. Expansion of international and regional cooperation for conservation of internal and common wetlands.

It is proposed that the Government should establish a national Wetlands Committee involving all the relevant Government Organizations and stakeholder groups to oversee the implementation of this strategy and action plan. It should establish and fund a series of 5 year wetland action plans until the vision is achieved.

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No	Implementation Strategy	Actions	Responsible Organization	Counterpart Organizations
1	Establishment of the integrated management within and among local, provincial, watershed, and national levels based on ecosystem management approach	1. 1 Establish the National Committee for Wetlands to oversee implementation of the National Wetland Conservation Strategy and Action Plan conservation (2012) 1. 2 Establish wetland conservation working groups in Provincial Development and Planning Councils (2012) 1. 3 Establish wetland conservation local committee at the local (Shahrestan) level (2012 onwards) 1. 4 Prepare and promote guidance on how to formulate and integrate wetland policies into the local and provincial development plan (2012) 1. 5 Prepare risk management plan, including climate change adaptation and drought management, and develop required capacity for its implementation (2013 -2014) 1.6 Prepare and implement management plans, including zonation, for each nationally important wetland (2012 -2016) 1.7 Identify prioritized list of wetlands requiring restoration and implement (2013 onwards) 1.8 Prepare and implement species action plans for priority Red List and endemic species at risk (2012 -2014)	Department of Environment (national, provincial, local)	Ministries of Internal Affairs(national, provincial, local levels), Jihad Agriculture(national, provincial, local levels), Energy, Road and Transportation(national, provincial, local levels), Parliament, NGOs, and local communities
2	Awareness raising of people and decision makers on wetland values	2. 1 Distribute and promote the National Wetland Conservation Strategy and Action Plan when it is approved (2012)	Department of Environment (national, provincial, local)	Ministry of Education, Literacy didactic Movement, I.R.I. Broadcasting. NGOs, Small Grant Program

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No	Implementation Strategy	Actions	Responsible Organization	Counterpart Organizations
		<p>2. 2 Identify stakeholders and analyze their capacity and educational needs (2012)</p> <p>2. 3 Prepare and implement environmental awareness raising plans at national, provincial and local levels (2012 onwards)</p> <p>2. 4 Prepare and disseminate a range of educational materials for wetland managers, community groups and schools (2012)</p> <p>2. 5 Encourage existing environmental and interpretation facilities near key wetland sites to include wetland related issues in their activities. (2012 onwards)</p> <p>2. 6 Monitor and evaluate the effectiveness of the educational activities and information exchange on wetland conservation and wise use (2013onwards)</p>		(GEF/UNDP)
3	Ensure wetlands receive enough water to be sustainable	<p>3. 1 Approve and implement a new law to ensure wetlands receive appropriate water allocation including quality, quantity, timing and duration to support natural values and functions (2012-2013)</p> <p>3. 2 Assess water requirement for each nationally important wetland and establish user rights during drought (2013 onwards)</p> <p>3. 3 Prepare and promote guidelines on wise use management of water resources both upstream and in the surrounding areas so as to provide wetland share at different conditions (2013)</p> <p>3. 4 Explore and promote different ways of providing water such as water transfer between basins, desalinization, rainwater harvesting, recycling grey water, water efficiency measures in all</p>	Ministry of Power(national, provincial, local levels) and Ministry of Jihad Agriculture(national, provincial, local levels)	Department of Environment (national, provincial, local levels), Ministry of industries and Mines(national, provincial, local levels), Ministry of Internal Affairs(national, provincial, local levels), Municipalities, Local communities, NGOs

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No	Implementation Strategy	Actions	Responsible Organization	Counterpart Organizations
		sectors, especially agriculture (2012 onwards)		
4	Sustainable use of wetlands (inside the actual wetland, the surrounding areas and upstream)	4. 1 Review damaging impacts affecting nationally important wetlands and implement prioritised programme to address them (2012 onwards) 4. 2 Integrate wetland policies into Provincial and local planning policies (2012 onwards) 4. 3 Produce and disseminate case studies demonstrating ways in which wetlands benefits are shared by local communities (2012) 4. 4 Investigate and promote opportunities for recreation , ecotourism and enjoyment through minimum impact access (2015) 4. 5 Establish small grant scheme to encourage sustainable use and development projects on wetlands (2014) 4. 6 Introduction of pollution preventive and control techniques to the stakeholders (2012)	Department of Environment (national, provincial, local levels)	All members of national, provincial and local committees
5	Ordain and modify laws and regulations, and policies to support wetland conservation	5. 1 Preparation of a comprehensive law for wetlands (2012-13) 5. 2 Approval of specific regulations for each wetland of national importance (2012 onwards) 5.3 Determination of the list of the activities with significant potential impacts on wetlands so as to be included for mandatory Environmental Impact Assessment (2012) 5.4 Allocate sufficient annual budget for implementation of wetland management plan and National Wetland Conservation Strategy and Action Plan (2012) 5.5 Determine legal and ecological borders of the wetlands (2012-2015)	Department of Environment (national, provincial, local)  Deputy of Presidency on Strategic Planning and Supervisory	Ministries of Internal Affairs, Jihad Agriculture, Energy, Road and Transportation, Parliament, NGOs  Department of Environment
6	Study and research on socioeconomic and ecological characteristics	6. 1 Ensure up-to-date ecological and assessment data is available for all nationally important wetlands and fill any gaps as necessary with	Department of Environment (national, provincial,	Universities, Consulting Companies, Ministry of Economic Affairs,

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No	Implementation Strategy	Actions	Responsible Organization	Counterpart Organizations
	and processes of wetlands	baseline studies covering physical, biological, hydrological characteristics and socioeconomic studies (2012 onwards) 6. 2 Complete data entry for the National Wetland Database and ensure adequate system for maintenance and use of the information (2012) 6. 3 Undertake study of the ecological values of wetlands, including goods and services (2012 onwards) 6. 4 Undertake study of the economic values and damage costs of wetlands and ensure results feed into national accounts and Governmental decision making processes (2012 onwards) 6. 5 Complete survey of all regionally and locally important wetlands using rapid assessment techniques (2012-2014)	local)	Statistical Center of Iran, Central Bank
7	Establishment of participatory monitoring and evaluation for wetland conservation based on up-to-date data	7. 1 Agree a set of performance and result based indicators for biodiversity, socioeconomic and institutional arrangement and use these indicators to prepare an annual progress report for National Wetland Committee and public (2012) 7. 2 Prepare and disseminate wetlands participatory monitoring and evaluation guidelines and implementation methodologies (2013) 7. 3 Encourage local communities to participate in monitoring and reporting management effectiveness on their wetlands (2014) 7. 4 Establish a wetland Geographic Information System linked to the National Wetland Database (2012 -2013)	Department of Environment (national, provincial, local)	All members of national, provincial and local committees
8	Expansion of international and regional cooperation for conservation of internal and common	8. 1 Negotiate transboundary agreements with neighboring countries on conservation of shared wetlands (2013) 8. 2 Identify specific projects for international collaboration focusing on transboundary wetlands and migratory species (2012)	Department of Environment	Ministry of Foreign Affairs, International Organizations, regional and neighbor countries

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No	Implementation Strategy	Actions	Responsible Organization	Counterpart Organizations
	wetlands	8. 3 Establish mechanisms to exchange of experiences with international organization and other countries (2013)		



## 5. Participation

Need for a cross-sectoral approach

Wetlands are integrated ecosystems located in larger ecosystems. This integration includes not only natural components of the system aspect but also societal. All the different functions and uses of wetlands used to be in harmony. However, for some time sectoral decisions have disrupted the ecological integrity of wetlands which led to the decrease of ecological functions and deterioration in the benefits wetlands provide to society.

To reverse these existing negative processes, sectoral decision making should turn into cross-sectoral and integrated decision making. It should be noted that this change will not be merely in the benefit of wetland biodiversity but also local communities and development activity should benefit. A prerequisite to this change is a willingness to take a more holistic view and to work together cooperatively to make the right long term decisions for society as a whole.

Who needs to be involved?

The Department of the Environment is the main Government Office responsible for leading the implementation of the strategy and action plan. However, Ministries of Energy and Jihad Agriculture, and Deputy of Presidency on Strategic Planning and Supervisory play important roles in provision of water and budget allocations. Many other Government Offices are required to cooperate and coordinate for the implementation of actions at national, provincial and local levels.

Another main aspect of the participation is engagement of local communities and Non-Governmental Organisations. Local communities which have direct and daily relationships with wetlands are of great importance. They have local knowledge which needs to be utilised and often have complex cultural and spiritual links to wetland areas. However, poverty and short term self-interest can lead to over exploitation of wetland resources and damage. Therefore, it is necessary to engage them from the beginning of the projects. Reaching local people needs significant investments of effort and time, but this short term investment pays long term rewards. Their attendance at meetings does not indicate participation and care has to be taken ensure they have a genuine stake in the wetland area and are actually able to participate in decision making processes. Non-Governmental Organisations can be helpful in awareness raising and convincing local communities to partake in conservation and in many cases they have been created to lead the conservation and sustainable use of wetlands.

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Governmental organisations, non-governmental organisations, the private sector and civil society all have an essential role to play in delivering the National Strategy and Action Plan and all need to work in partnership arrangements appropriate for the work to be done.

To achieve a more holistic and integrated approach working across different sectors and different groups in society requires a significant investment in capacity building at system, organization and individual levels.