

**DEPARTMENT OF ENVIRONMENT  
THE ISLAMIC REPUBLIC OF  
IRAN**

**JAPAN INTERNATIONAL  
COOPERATION AGENCY**



**ANZALI WETLAND  
ECOLOGICAL MANAGEMENT PROJECT  
IN THE ISLAMIC REPUBLIC OF IRAN**

**Zoning Plan  
in the Anzali Wetland**

**July 2012**

**DOE Project Team – DOE  
JICA Expert Team – JICA**





# **Zoning Plan in the Anzali Wetland**



**DOE Project Team : Department of Environment (DOE),  
Gilan Province Environmental Protection Administration (DOE  
Gilan)**



**JICA Expert Team : Japan International Cooperation Agency  
CA)**



**Anzali Wetland Ecological Management Project in the  
Islamic Republic of Iran**

**Approved version (July 2012)**



Table of Contents  
for  
Zoning Plan in the Anzali Wetland

1. Introduction .....	1
2. Present condition around the Anzali Wetland .....	1
(1) Natural Environmental Condition.....	1
(2) Socio-economic Condition.....	1
(3) Land use and Urban plan .....	1
3. Concepts of the Zoning Plan .....	2
(1) Basic Concept .....	2
(2) Based on International Standard.....	2
(3) Covering the Existing Rules and Regulations .....	2
(4) Promotion of Wise-use .....	2
(5) Promotion of SATOYAMA Initiative .....	2
(6) Promotion of ICCA Concept .....	3
(7) Screening by AWMC .....	3
(8) Adaptive Management .....	3
4. Guidelines of Zones.....	3
(1) Wetland Zone .....	4
(2) Buffer Zone.....	4
(3) Transition Zone.....	5
5. Operation of the Zoning Plan.....	6

**Attachment**

- Map1 Endangered Bird Habitat of the Anzali Wetland
- Map2 Breeding Bird Habitat of the Anzali Wetland
- Map3 Wintering Bird Habitat of the Anzali Wetland
- Map4 Important Fish Habitat of the Anzali Wetland
- Map5 Protection Areas in the Anzali Wetland
- Map6 Ab-bandan(Hunting and Fishing Permitted Area) in the Anzali Wetland
- Map7 Satellite Image (Aster 2011)
- Map8 Landuse(2011) in the Anzali Wetland
- Map9 Anzali Wetland Zoning Map
- Map10 Wetland Zone of the Anzali Wetland
- Map11 Sub Zones in Wetland Zone
- Map12 Buffer Zone of the Anzali Wetland
- Map13 Transition Zone of the Anzali Wetland

**Abbreviation**

- AWMC: Anzali Wetland Joint Management Committee
- CENESTA: Centre for Sustainable Development (NGO)
- ICCA: Indigenous Peoples' and Community Conserved Areas and Territories
- IUCN: International Union of Conservation Natural
- MAB: Man and the Biosphere Programme
- UNESCO: United Nations Educational, Scientific and Cultural Organization



## **1. Introduction**

The Regulations of the zoning plan for the Anzali wetland management have been prepared to operate the zoning plan adequately.

these regulations consists of six components: 1) Present conditions around the Anzali Wetland 2) Concepts of the zoning plan; 3) Definition of Zones; 4) Regulations of zones; and 5) Operation

## **2. Present conditions around the Anzali Wetland**

### **(1) Natural Environmental Conditions**

The Anzali Wetland, a large complex of fresh water lagoons with extensive reed-beds, and seasonally flooded meadows in the Southwest Caspian lowlands, is extremely important as a spawning and nursery ground for fishes, and as breeding, staging and wintering areas for a wide variety of waterfowl. (Map1-4)Parts of the wetland are protected in Siahkeshim Protected Area and Selke, Sorkhankol, and Choukam wildlife refuge. The entire wetland has been designated as a Ramsar site. (Map5)

### **(2) Socio-economic Conditions**

According to Socio-economic survey by CENESTA, monitoring surveys of the economic conditions and sustenance of households residing in the wetland margins demonstrate that: The most important source of income for households residing in these areas is agriculture. In addition to agricultural activities, animal husbandry is also common as one of the comprehensive activities. With due attention to the historical utilization of the resources of the Anzali Wetland by local communities, social life trend of these communities; and the performance of predation and preying is one of the behaviour patterns that come to hand in this manner. Since hundreds of years ago communities have lived around Anzali wetland and exploited wetland resources alongside farming activities. It was mostly the exploitation of vegetation for producing handicrafts, fishing, and hunting native and migrated birds to meet some of the family needs to food and a source of income by selling wetland products. Studies as well as local communities' statements in workshops and focus group discussions show that local exploitations of wetland especially hunting and fishing followed a specific customary system and organization which is flexible to environmental, social, economic, and managerial conditions of Anzali wetland. The most significant point in this customary exploitation system is the commitment of exploiters to conserve and sustainable use of biological and ecological sources of the wetland. In other words, during hundreds of years the local communities around the wetland have exploited the wetland resources in parallel with conservation of these resources through a customary and local conservation system known as "Ab-Bandan ". (Map6)

### **(3) Land use and Urban plan**

The Anzali city, in the north of the wetland is a highly developed urban area. The wetland is bordered on the south by cultivated lands (mainly rice) and patches of woodland. There are many small villages around the wetland. Many of the villages have Terh-e Hadi plan (Urban land use plan) with permitted construction areas. (Map7-8)

## **3. Concepts of the Zoning Plan**

### **(1) Basic Concept**

In order to accomplish coexistence of conservation of the Anzali Wetland and human activities, zoning can play an important role in minimizing user conflicts by separating potentially conflicting activities.

### **(2) Based on International Standard**

The entire wetland has been designated as a Ramsar site. Therefore, the zoning plan of the Anzali Wetland should be based on international standards.

To carry out complementary activities of nature conservation and using the natural resources, Biosphere Reserves, some of which are also Ramsar Sites, are areas of terrestrial and coastal ecosystems that are internationally recognized within the framework of UNESCO's Man and the Biosphere Program (MAB). Biosphere Reserves are organized into three interrelated zones, known as the core zone, the buffer zone and the transition zone.

In the Anzali Wetland, three main zones have been defined as follows:

- o Wetland Zone
- o Buffer Zone
- o Transition Zone

In addition, the concepts of zoning plan are based on IUCN Guideline, SATOYAMA Initiative and ICCA.

### **(3) Covering the Existing Rules and Regulations**

Zoning regulation should comply with existing laws and regulations such as "Manual of Surface Water Qualitative limits determination", "Industrial and Productive Activities and Units Construction Criteria and Regulation" and each village's "Tarh-e Hadi Plan". -New and effective regulations should be introduced in addition to existing regulations.

There are so many activities in/around the wetland which have been already permitted. The zoning regulations should NOT prohibit such activities, while it should prohibit all illegal activities after approval of the zoning plan by the Anzali Wetland Management Joint Committee (AWMC) and exclude illegal activities from the zones.

### **(4) Promotion of Wise-use**

The wetland has been used by local people and communities for a long time. Local people have close relationship with the Anzali Wetland. Therefore the new zoning plan should promote wise-use of the wetland. Wise use of the wetlands is the maintenance of their ecological character, achieved through implementation of ecosystem approaches, within the context of sustainable development.

Therefore new zoning regulations should permit low impact Ecotourism, Environmental Education, and Research activities (including Monitoring) without destruction of the wetland. In addition, new zoning regulations should permit



restoration project for improvement of wetland quality, and low impact small-scale facilities for Ecotourism and Environmental Education. Basically other activities should not be permitted in the Wetland Zone.

**(5) Promotion of SATOYAMA Initiative**

SATOYAMA Initiative aims to conserve sustainable human-influenced natural environments (Socio-Ecological Production Landscapes; SEPL) through broader global recognition of their value. Inside/around the Anzali Wetland is SEPL. Therefore the zoning plan should promote SATOYAMA Initiative.

**(6) Promotion of ICCA Concept**

In fact in each historical era the mechanisms and institutional structure of this system (Ab-Bandan-Dar) was in the direct relation and compatible with their social structure as well as with their customary and official ownership systems. Nowadays this system is still alive and sustainable as a kind of Indigenous Community Conserves Area (ICCA) system. Therefore the zoning plan should promote the ICCA concept.

**(7) Screening Development Plans by AWMC**

Basically prohibited activities by zoning regulations should not be permitted, but requisite activities inside zones can be made by getting permission from the Anzali Wetland Joint Management Committee (AWMC). Even permitted activities needs Environmental Impact Assessment and mitigation to minimize the environmental impact to the wetland.

**(8) Adaptive Management**

The zoning plan should be updated based on the present conditions of the wetland by using monitoring data.

**4. Regulations of Zones**

Establishment of a zoning scheme should normally involve stakeholders' participation in drawing the lines between the conflicting zones. Agreeing on the zoning and the management objectives for each zone (and hence what activities should and should not be permitted within each zone) is an important part of the process of establishing close involvement of local communities and other stakeholders in the management of the wetland. It is therefore proposed that the zones and the regulations for their use should be approved by the Anzali Wetland Management Joint Committee (AWMC), and then disseminated to the wider public with the use of maps and presentations in the surrounding communities. The presentations should include the rationale for establishing and delineating the zones, and a concise description of the functions of, and restrictions applied, within each zone.

Where possible, boundaries of the zones have been selected so that they are easily recognisable and clearly identifiable on the ground, e.g. the road that forms the southern boundary of the Transition Zone. Elsewhere, the boundaries must eventually

be identified with some form of fixed permanent markers, with their locations mapped using a Global Positioning System (GPS).

The zoning plan should be amended according to significant changes in the level of the Caspian Sea, revisions in wetland boundary by MOE (based on “Manual of Surface Water Qualitative limits determination”) and other significant changes in/around the wetland. The wetland water level and water margin should therefore be monitored and the boundaries reviewed.

The definitions and permitted activities for the three Anzali zones (including the two sub zones) are provided below. (Map9)

**Table4.1 Definition of Zones**

Zone	Component of zone	Subzone	Source
1.Wetland Zone	Inside of the boundary of wetland (Seasonal submerged area, Lagoon, Swamp, Marsh(Reed bed), Riparian forest, natural grassland)	(should be determined by below)	Land-use(MOE)
	Wildlife refuge, Protection area , No hunting area	Procteted Sub-zone	DOE
	Important habitat(bird & fish)	Wiseuse Sub-zone	DOE & Shilat
	Ab-Bandan areas (for fishing and hunting) which DOE permitted	Wiseuse Sub-zone	DOE
2.BUFFER ZONE	2000m from Wetland Zone		Manual of Surface Water Qualitative limits determination, Industrial and Productive Activities and Urnts Construction Criteria and Regulation
	500m from main inflowing main river and lagoon		
	Natural area (Seasonal submerged area, Lagoon, Swamp, Marsh(Reed bed), Riparian forest, natural grassland, Important fish habitat of inflowing river)		Land-use map
	EXCEPT Development Areas based on Urban plan such as Tarhe Hadi plan		Tarhe Hadi plan
3.TRANSITION ZONE	2000M from BUFFER ZONE (But this may be varied locally to take account of existing features on the ground.)		-
	EXCEPT Development Areas based on Urban plan such as Tarhe Hadi plan		Tarhe Hadi plan

**Table 4.2 Permitted Activities of Zones**

Zone	Permitted Activities
1. Wetland Zone	
1.a Protected Sub-Zone	Research and Monitoring (by approval) Conservational management (by approval) Low impact Eco-tour and EE activity
1.b Wise Use Sub-Zone	As Protected Sub-Zone ,plus Low impact Hunting and Fishing (by permission)
2. Buffer zone	As above all, plus Low impact agriculture (such as organic farming) Low impact Industrial and Productive Activities (based on <b>Industrial and Productive Activities and Units Construction Criteria and regulation</b> and <b>Surface Water Qualitative Limits determination</b> )
3. Transition zone	As above all, plus Other Activities (Large Developments need EIA and Mitigation to the Wetland ) Transition zone must control to include at least 10,000ha paddy field and pasture for conservation of waterfowls.

## **(1) Wetland Zone**

### **Definition**

The Wetland Zone is essentially the Anzali Ramsar Site, comprising the lagoon and all the contiguous coastal reed beds, and Ab-bandans. All of the protected areas (such as *Siahkeshim Protected Area, Selke, Sorkhankol and Choukam Wildlife Refuges*) are included within this Zone. In addition, important bird and fish habitats are included in this Zone. The Wetland Zone is divided into two Sub-Zones. One is **Protected Sub-Zone** which covers all protected areas. The other one is **Wise use Sub -Zone**. (Map10-11)

### **Goal**

The Wetland Zone is a multiple-use site, the management objectives for which are broadly to ensure that the ecological character of the wetland is maintained or enhanced, so as to continue to provide its values and functions for people's livelihoods and for the conservation of biodiversity.

### **Guideline**

1. Permit low impact ecotourism, environmental education, and research activities (including the monitoring) without destruction of the wetland.
2. Permit activities for improvement of wetland quality, and low impact small-scale facilities for ecotourism and environmental education.
3. Prohibit other activities inside **the Protected Sub-Zone**.
4. Permit sustainable fishing and hunting as an Ab-bandan system inside **the Wise-use Sub-Zone**.

## **(2) Buffer Zone**

### **Definition**

The Buffer Zone is the area that surrounds the wetland within which land use activities may directly affect the ecological character of the wetland itself, and therefore need to be controlled. The Buffer Zone includes the area within which seasonal or longer term water level rises may be experienced. Thus, it is an eco-tone where the aquatic ecosystem blends into the terrestrial ecosystem, and as such may be a highly diverse and productive habitat. Basically this area has been taken to be 2km wide around the Wetland Zone and 500m wide from the main inflowing rivers and swamps. Most of the buffer zone is under agricultural use, either as paddy fields, livestock and pasture or fish ponds. (Map12)

### **Goal**

The objective for land use within the Buffer Zone is sustainable use through ecosystem management, consistent with the maintenance of the ecological character of the wetland. This means that any development or activity that could have an adverse effect on the adjacent wetland should be prohibited.

### **Guideline**

1. Permit all of the activities which have been already permitted inside the Wetland Zone.
2. Permit low impact industrial and productive activities based on relevant laws.
3. Promote low impact agriculture such as organic farming.
4. Promote low impact aquaculture.
5. Prohibit other activities inside the Buffer Zone except the construction areas in Tarhe Hadi Plans.

### **(3) Transition Zone**

#### **Definition**

This zone surrounds the Buffer Zone, in which ‘sustainable use’ is promoted to conserve the other two zones against pollution and degradation. In general, the Transition Zone is a 2km-wide band, while this may be varied locally to take account of existing features on the ground. Most of the transition zone is under agricultural use, either as paddy fields, livestock and pasture or fish ponds. (Map13)

#### **Goal**

Most of the transition zone is covered by sustainable agricultural lands. There is enough socio-ecological production landscape such as paddy fields or pastures for waterfowls feeding habitat in this zone.

#### **Guideline**

1. Permit all of the activities which have been already permitted inside the Buffer Zone.
2. Permit other activities with Environment Impact Assessment and mitigation.
3. Control all of the land use inside this zone to include at least 10,000ha of paddy field or pasture for conservation of waterfowls.

## **5. Operation of the Zoning Plan**

#### **Goal**

DOE Guilan plays strong leadership for the operation of the zoning plan of the Anzali Wetland in cooperation with relevant organizations and local people in order to accomplish coexistence of conservation of the Anzali Wetland and human activities.

#### **Guideline**

1. DOE Guilan operates the zoning plan in order to accomplish coexistence of conservation of the Anzali Wetland and human activities.
2. DOE Guilan publicizes the zoning plan among relevant organizations and local people such as distributing zoning maps.
3. DOE Guilan patrols and stops illegal activities in the wetland.

4. DOE Guilan manages the each Zone in cooperate with organizations and local people.
5. DOE Guilan and relevant organizations set sign boards on the boundary of each zone.
6. DOE Guilan arranges the zoning working level meetings with relevant organizations regularly.
7. DOE Guilan updates and improves the zoning plan according to considerable changes in water level of the Caspian Sea, revisions in wetland boundary by MOE and other significant changes in/around the wetland.
8. DOE Guilan allocates the budget for operating zoning by decision of the Anzali Wetland Management Joint Committee.

## **Attachment**

- Map1 Endangered Bird Habitat of the Anzali Wetland
- Map2 Breeding Bird Habitat of the Anzali Wetland
- Map3 Wintering Bird Habitat of the Anzali Wetland
- Map4 Important Fish Habitat of the Anzali Wetland
- Map5 Protection Areas in the Anzali Wetland
- Map6 Ab-bandan(Hunting and Fishing Permitted Area) in the Anzali Wetland
- Map7 Satellite Image (Aster 2011)
- Map8 Landuse(2011) in the Anzali Wetland
- Map9 Anzali Wetland Zoning Map
- Map10 Wetland Zone of the Anzali Wetland
- Map11 Sub Zones in Wetland Zone
- Map12 Buffer Zone of the Anzali Wetland
- Map13 Transition Zone of the Anzali Wetland