

# Marshlands (The Garden of Eden)

Presented by:

Assist. Prof Dr. Suhad M. Al-Hedny

College of Environmental Sciences / Al-Qasim  
Green University, Babylon, Iraq

# The Unique Marshlands

For over 7,000 years, the Iraqi Marshlands - the Mesopotamian Marshlands - have played an important role in global ecosystems by supporting rare wildlife and rich biodiversity.

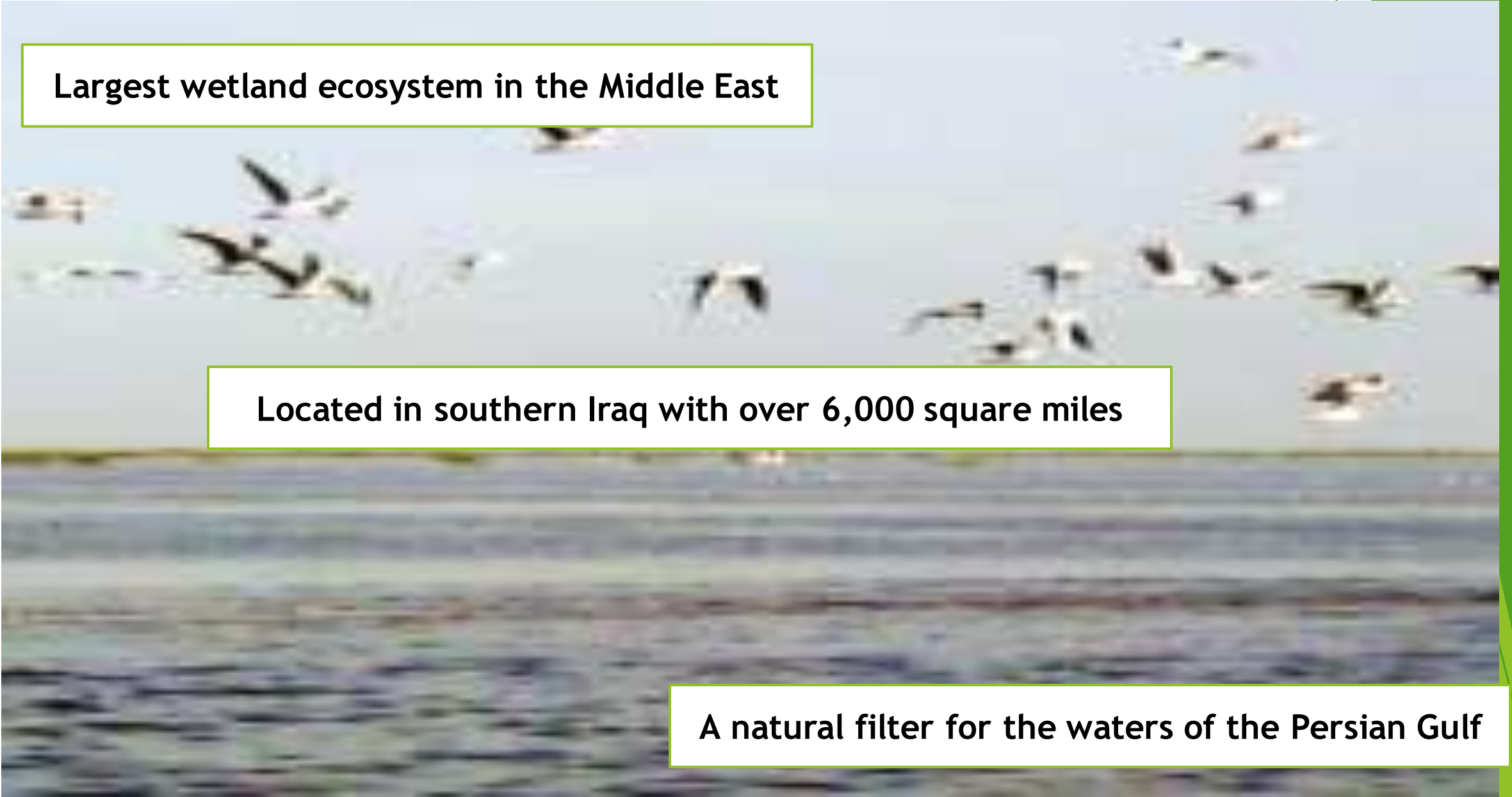


# The Unique Marshlands

**Largest wetland ecosystem in the Middle East**

**Located in southern Iraq with over 6,000 square miles**

**A natural filter for the waters of the Persian Gulf**



# Value of Iraqi

## Marshlands:

### 1-Biodiversity and Ecology

- Home to 22 globally endangered species and 66 at-risk bird species.

- A major flyway for many migratory birds

- A source of fish and dairy products

# **Value of Iraqi Marshlands!**

## **2- Cultural Heritage**

**The historic home to several hundred thousand Marsh Arabs - the Ma'dan**

## **3- Historical Significance**

**The site of the biblical “Garden of Eden”**

## **4- A UNESCO World Heritage site**

## **5- Water Resources and Agriculture**

# Every decade has a story

## The Threaten Periods

1930s

The first to attempt to drain the marshes, as a breeding ground for mosquitoes and lack of apparent economic value, as well as use of the water for irrigation.

1980s

large-scale destruction during the Iraq-Iran War (1980-1988)

1990s

Destruction by Saddam Hussayn - Regime  
The landscape and environment were long-term changed

2000-2003

UNEP alerted the international community that 90% of the Marshlands had already been lost. By 2002, the marshes had shrunk to 1,600km<sup>2</sup> or 14% of their size in 1970s.

2003- ...

Turkey, Syria and Iran have constructed a number of dams on the Euphrates, Tigris, Karkeh, and Caroon Rivers.

Fluctuation of marsh cover in the years following Re-flooding.

# The Implications of marshland degradation

1- Reduction of Biodiversity

2- Disruption of Ecological Processes

3- Economic Implications

4- Degradation of Water Quality

5- Exacerbation of Climate Change

6- Increased Risk of Flooding and Erosion

# **NBS for Ecosystem Restoration and Biodiversity Conservation**

**1- Re-flooding**

**2- Long-term health of the marshlands**

**3- Livelihoods improvement**

**4- Biodiversity Conservation**



# 1- Re-flooding

**Challenges**



**Low water revenues from neighboring countries**

**Actions**



**Political Will and International Support**

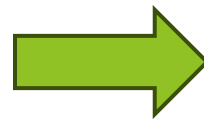
## 2- Long-term health of the marshlands

**Challenges**



**Pollution and waste discharge into the marshes.**

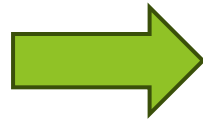
**Actions**



**Water Management**

### 3- Livelihoods improvement

#### Challenges



- Infrastructure and Services
- Land and Resource Tenure
- Poverty and Unemployment
- Climate change

#### Actions



- Long-term viability of livelihoods
- Infrastructure Development
- Diversify income sources
- Climate Change Adaptation

## 4- Biodiversity Conservation

### Challenges



- Illegal Wildlife Trade
- Invasive Species
- Lack of Awareness
- Limited Capacity
- Insufficient financial resources

### Actions



- Maintaining the ecological balance
- Integrating conservation with development

**THANK YOU**

**For Your:  
Attendance & Attention**