

# Content of session

- What is artificial drainage and how is this threatening wetlands?
- What are the agricultural practices and how do they threat wetlands?

## What is artificial drainage and how is this threatening wetlands?

- Artificial drainage – employs the help of pipes, wells and other constructed materials to achieve a successful drainage solution
- Artificial drainage equal to wetland loss
- Therefore wetlands loose their functions

## Loss of Mediterranean wetlands

- Despite their considerable biological and economic value, Mediterranean wetlands were long considered as hostile to humans, and were therefore “cleansed”, drained, and filled in over the centuries.
- Their area has continuously decreased and they have been profoundly degraded, especially during the second half of the 20<sup>th</sup> century when they were often converted into agricultural, urban or industrial lands, or replaced by artificial wetlands.
- Even today, most Mediterranean wetlands are still endangered by the intensification of agriculture – which requires great quantities of water and land, and releases organic pollutants – and water management infrastructure, climate change, and the introduction of new species.

## 50% of Mediterranean wetlands disappeared during the 20th century

- those that remain are often degraded or artificialized.
- 50% of French wetlands disappeared between 1960 and 1990;
- 73% of the marshes in northern Greece have been drained since 1973;
- 60% of the initial area of Spanish wetlands have been lost;
- 84% of the wetlands of the Medjerda river basin in Tunisia disappeared during the 20th century.

62 % of wetlands lost in Albania during 1950-1980

## Current situation

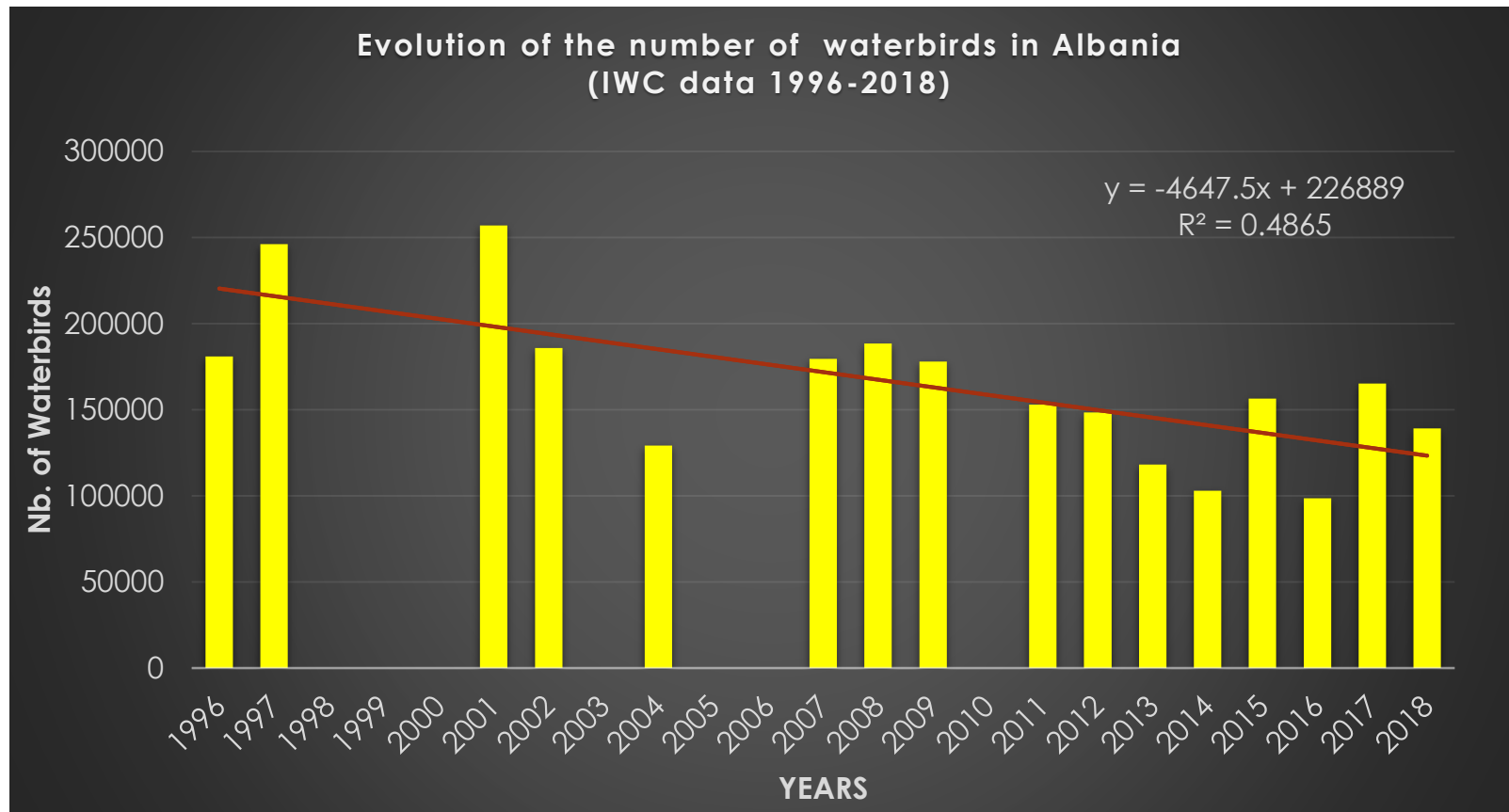
Wetland types in Albania	Number	Surface (ha)
Lagoon ecosystems	10	13000
Marshes	1	300
Natural lakes	247	36000
Hydroenergetic lakes	5	36000
Rezervoirs	623	4000
<b>Total</b>	<b>886</b>	<b>89300 ha</b>

## The importance of Albanian wetlands for biodiversity

Fauna groups	Number	National %
Fish	> 120	> 33
Amphibians	13	87
Reptiles	27	75
Birds	290	89
Mammals	42	56
<b>Total</b>	<b>534 species</b>	<b>&gt; 70%</b>

## Wintering waterbirds trend (IWC in Albania 1996-2018)

**16 years cluster, Av. No. of waterbirds 164178, 97 species, 80 regular**



Environmental values started to be appreciated.

- Until a generalised decline in the natural functions of Mediterranean wetlands was observed
- Wetland loss – loss of vital functions for ecosystems and humanity

# Functions of wetlands

- Groundwater recharge and protection
- Groundwater discharge
- Flood control
- Coastal protection and erosion control
- Sediment and toxicant retention
- Nutrient retention and recycling

# Functions of wetlands

- Tourism and recreations
- Biodiversity
- Hunting
- Fisheries
- Pasture land and grazing

# Agricultural practices

- Intensive agriculture
- Use of nutrients
- Use of pesticides/herbicides
- Monoculture agriculture

# Threat Management

- Improving legal framework
- Integrated Management,
- Restoration
- Training
- Education
- Awareness raising programmes



Thank you!