

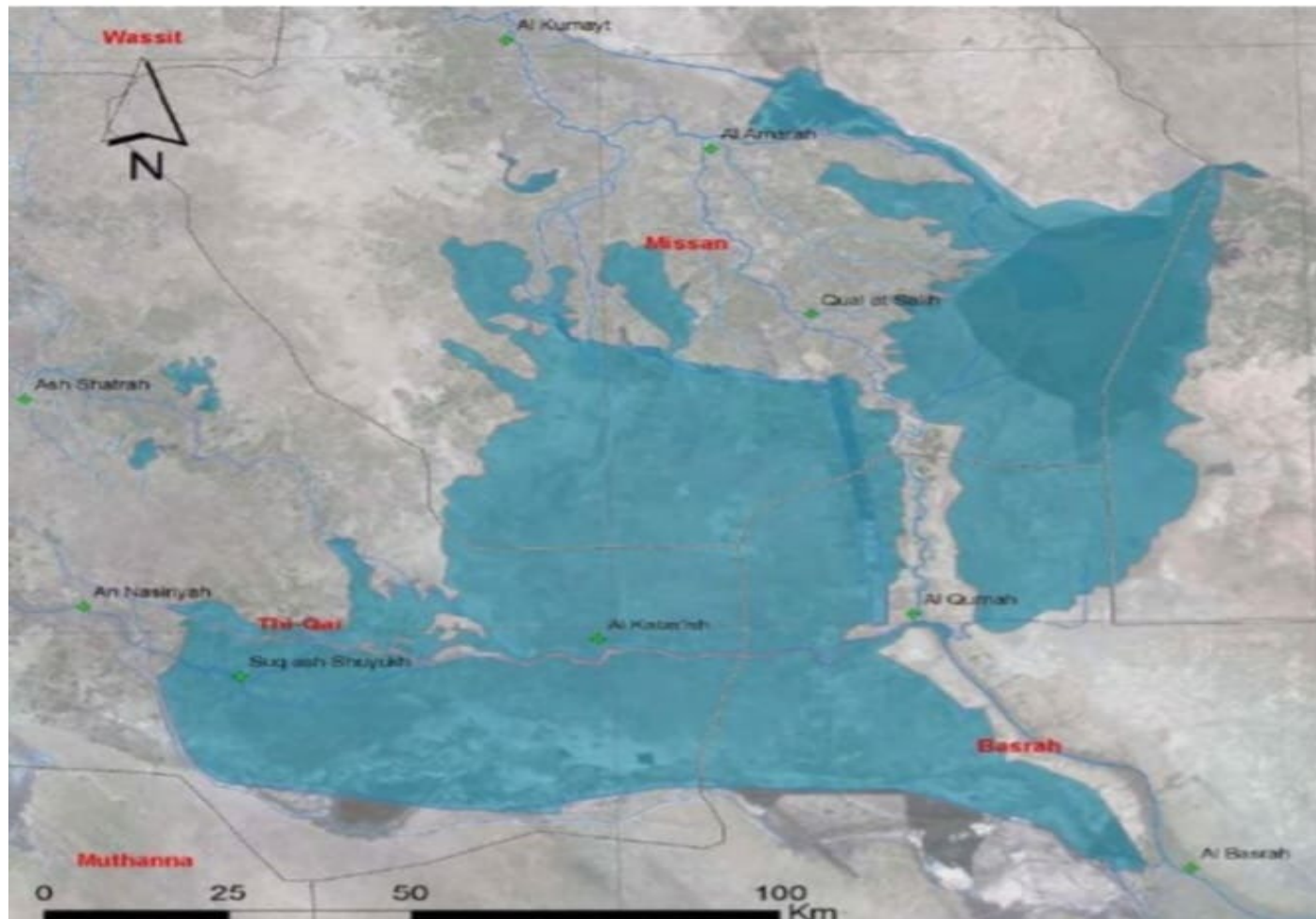
Restoration of Al-Hawizeh Marsh in Southern Iraq

Dr. Luay Ali Hussein - Ministry of Water Resources -
Republic of Iraq

Marshes of Mesopotamia

- ▶ Located in southern Iraq within the governorates of Maysan, Dhi Qar, and Basra.
- ▶ They cover more than 20,000 km² during periods of water abundance.
- ▶ They were extensively drained during the 1990s, negatively impacting social life and biodiversity.
- ▶ Some areas were preserved and later designated as Ramsar sites and protected zones.

Marshes in 1970





1973

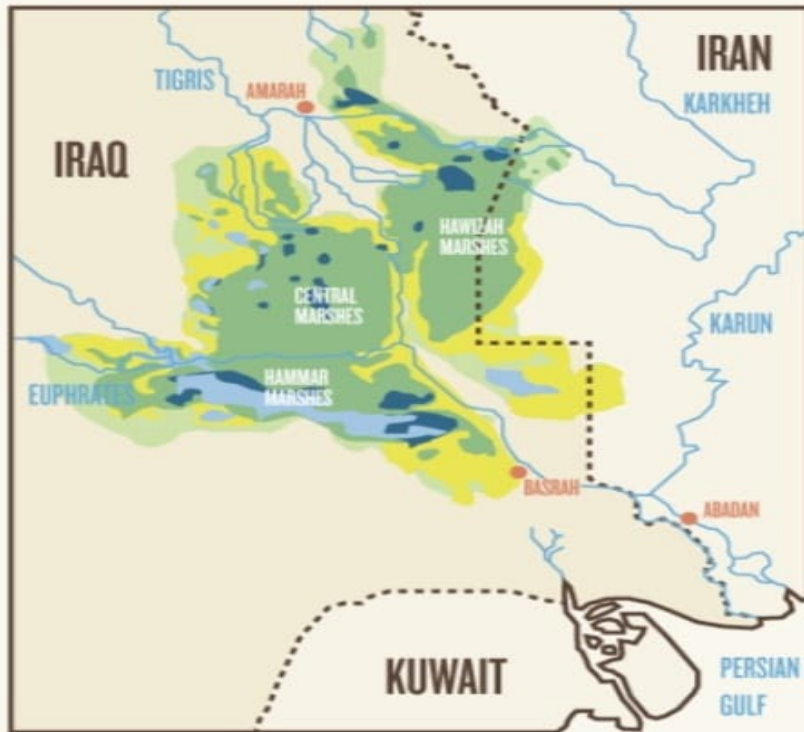


2002



THE RAPID DESTRUCTION OF THE MESOPOTAMIAN MARSHLANDS

1973



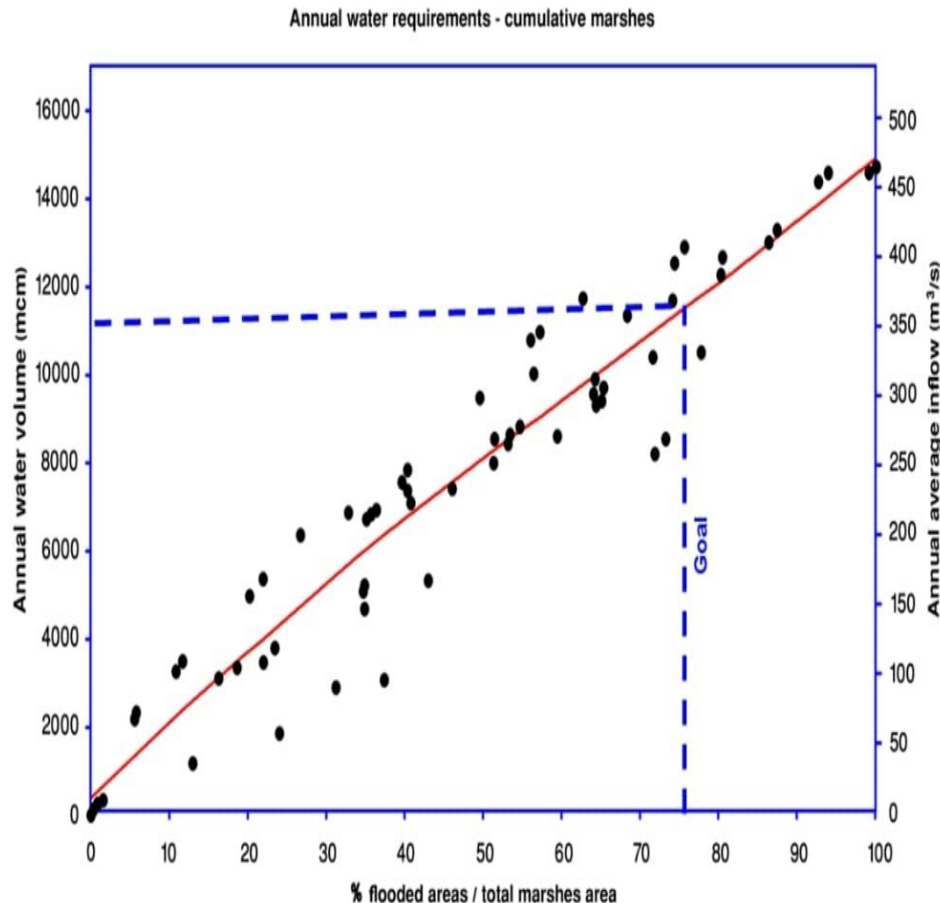
- PERMANENT MARSH
- SEASONAL MARSH
- EDGE MARSH / TEMPORARY MARSH
- PERMANENT LAKE
- SHALLOW / SEASONAL LAKE

1994



- PERMANENT MARSH
- AREA OF SUBSTANTIAL DRYING
- FLOOD AREA
- CANALS / PIPELINES
- FORMER EXTENT OF MARSHLANDS (1973)
- DAM / DIKE

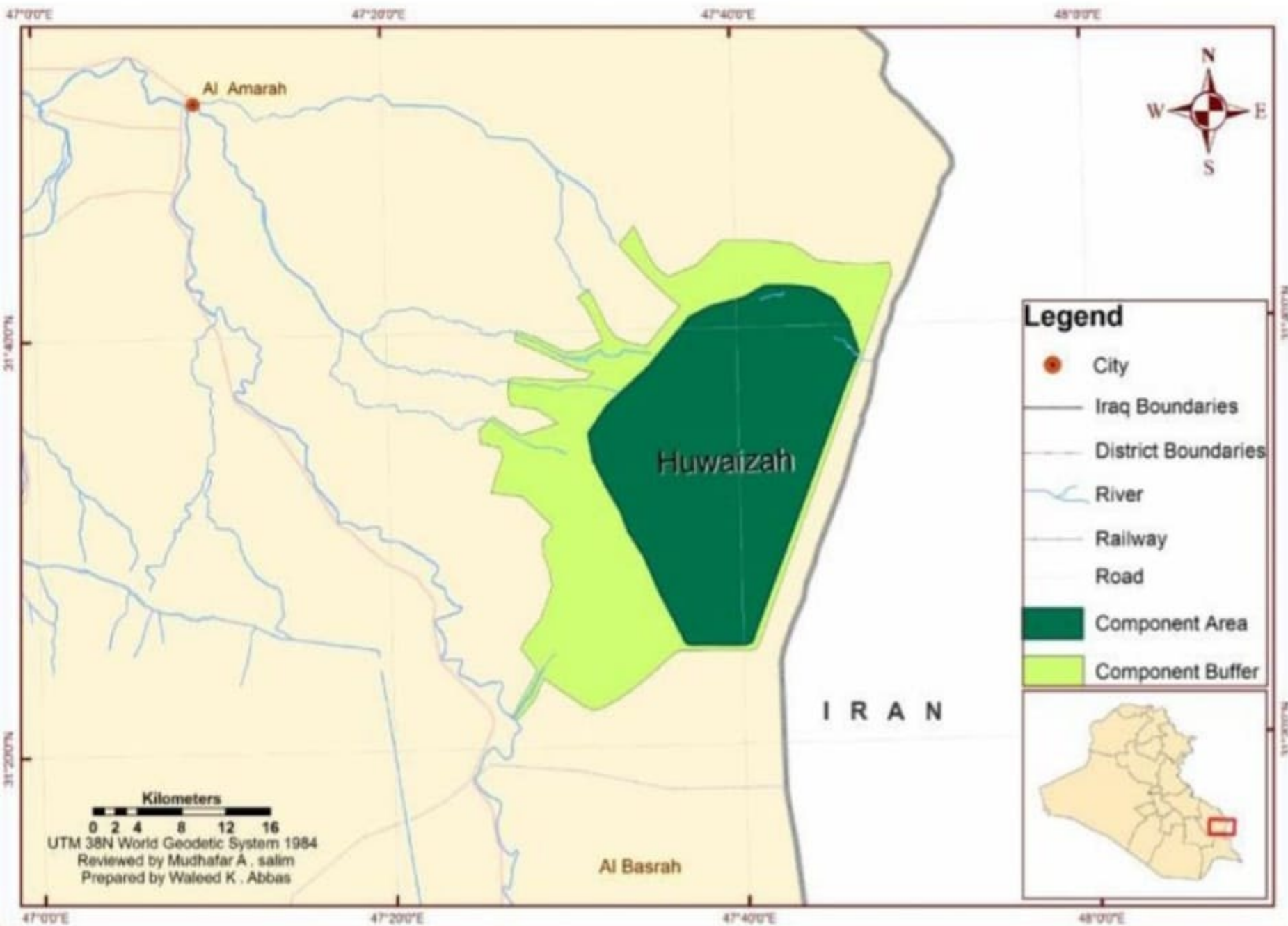
Strategy for Water and Land Resources in Iraq (SWLRI)



- ▶ SWLRI indicated the need to provide sustainable environmental flows to the marshes.
- ▶ According to SWLRI, marshes need 5.305 billion m³/year of water to flood 50% of the area required.
- ▶ Some of them listed as a Ramsar site or a World heritage.

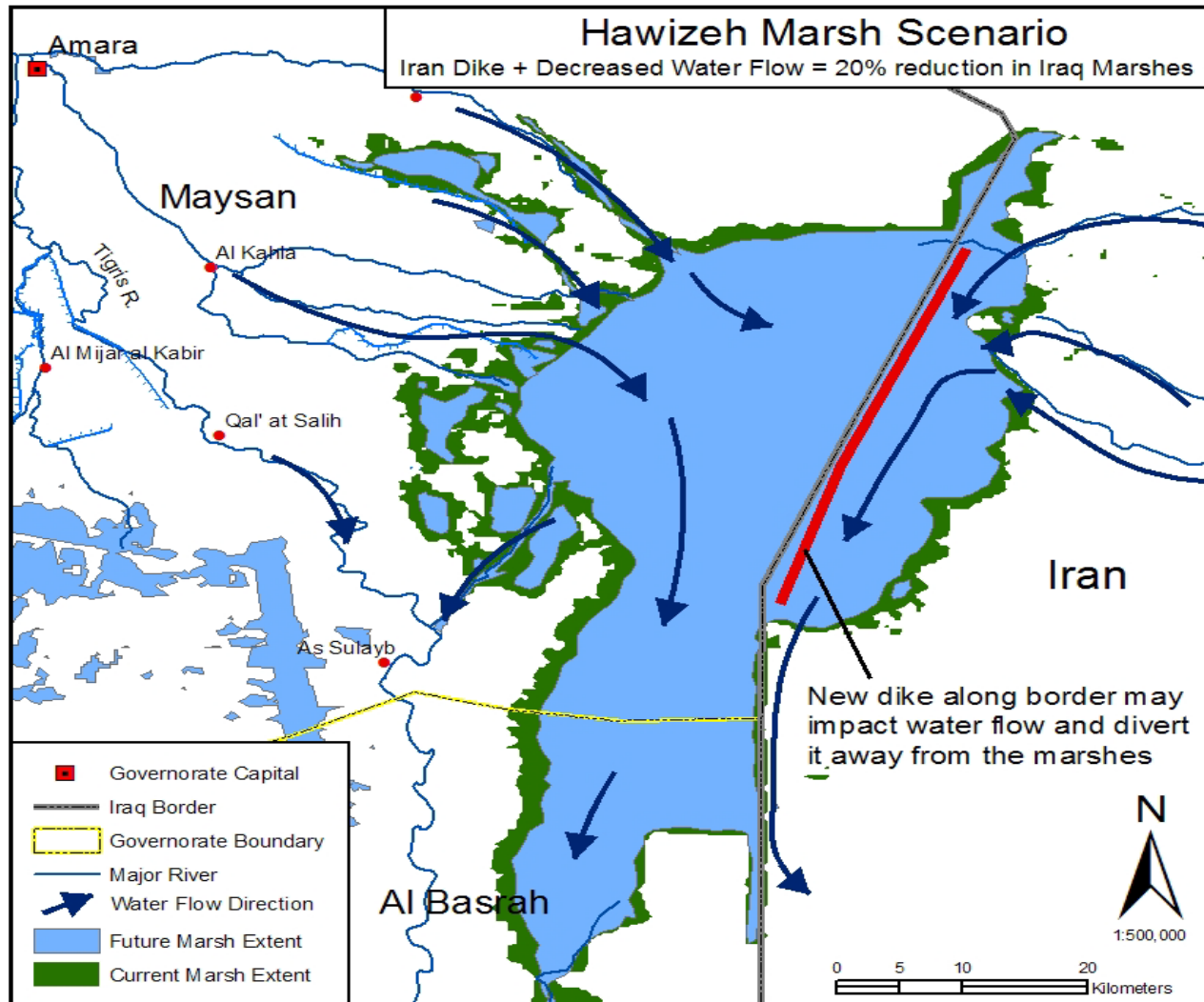
Al-Hawizeh Marsh

- ▶ Al-Hawizeh Marsh is located on the Iraq-Iran border, with a total area of approximately 3,000 km².
- ▶ About 80% lies within Iraq, and the remaining part lies within Iran (Al-Azim Marsh).
- ▶ The marsh requires about 1.6-1.9 million m³ water annually, discharging over four months to maintain its wetland ecology.



الجمهورية - محافظة ميسان

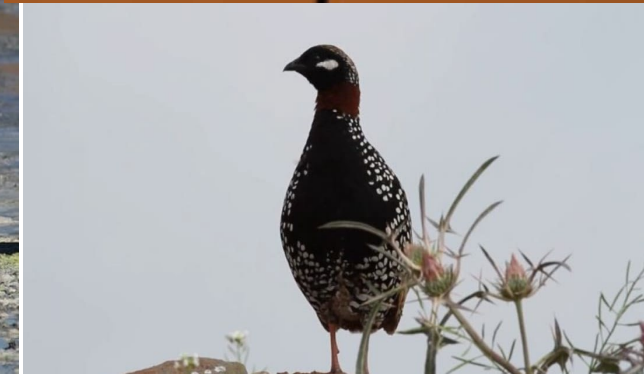
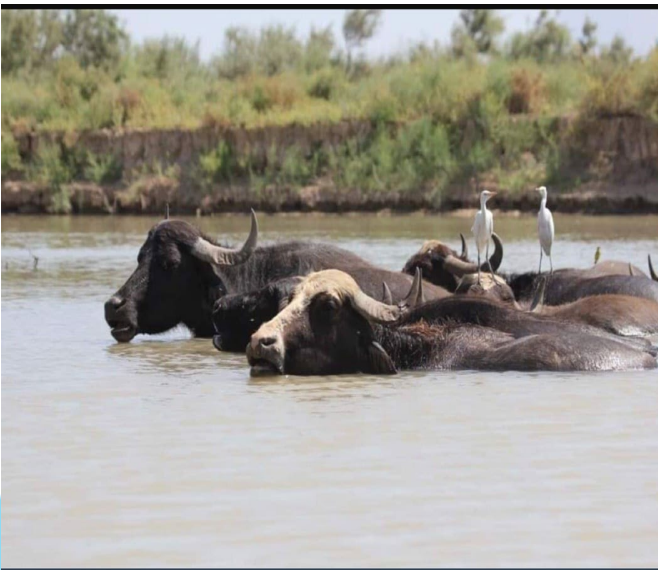
Al-Hawizeh Marsh



Cultural and economic diversity



Unique biodiversity



Cultural and civilizational diversity

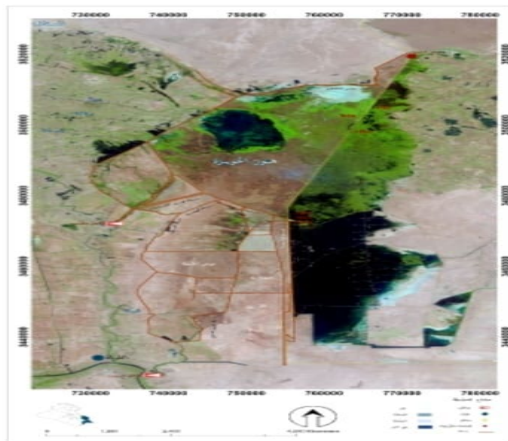


Efforts to restore Al-Hawizeh Marsh

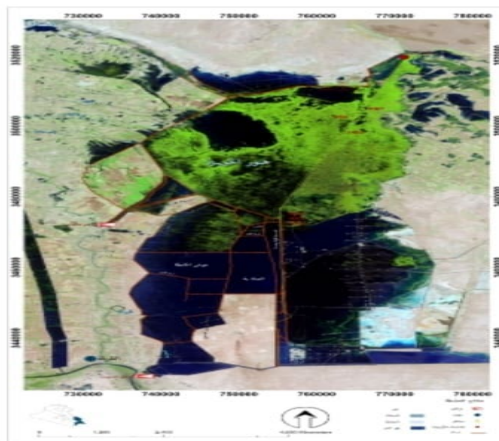
- ▶ The Center for Restoration of Iraqi Marshes and Wetlands (CRIMW) was established in 2005, under the MoWR.
- ▶ The CRIMW has implemented several projects to restore and improve the environment of the Hawizeh Marsh.
- ▶ The World Heritage List included the Hawizeh Marsh (as a Biodiversity Refuge and Cradle of Civilisations) in 2016 after listing it as a Ramsar Site in 2007.



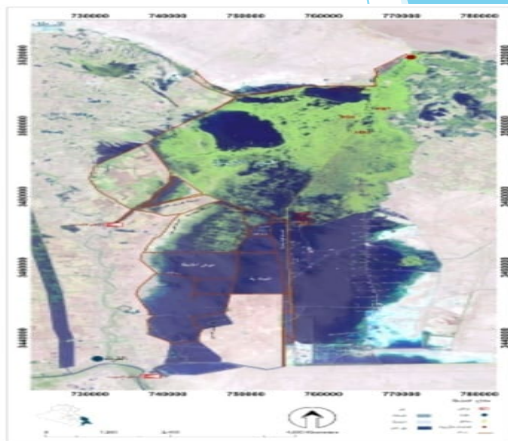
Flooding levels have fluctuated significantly due to water policies and climate change, ranging between 40% to 80% of the original area in some years.



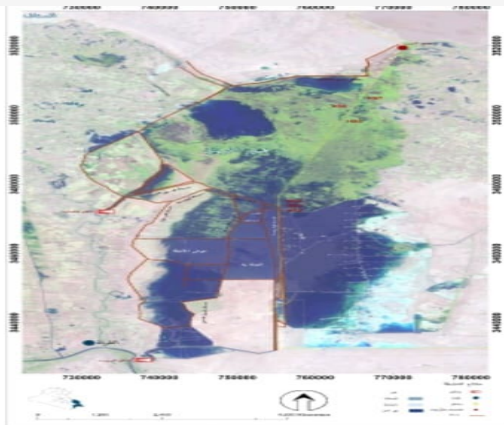
2018



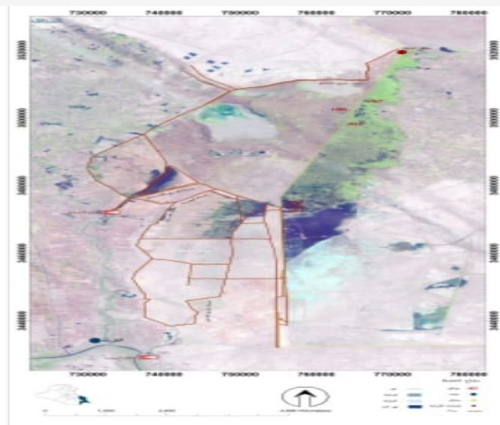
2019



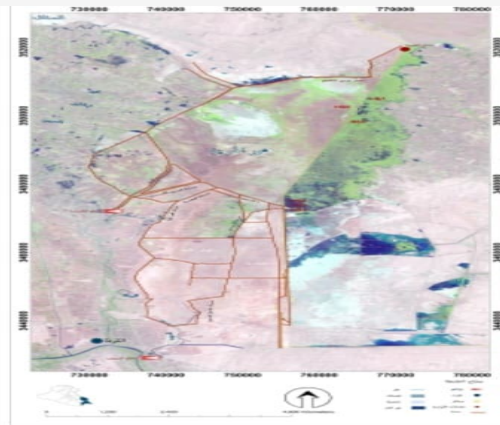
2020



2021



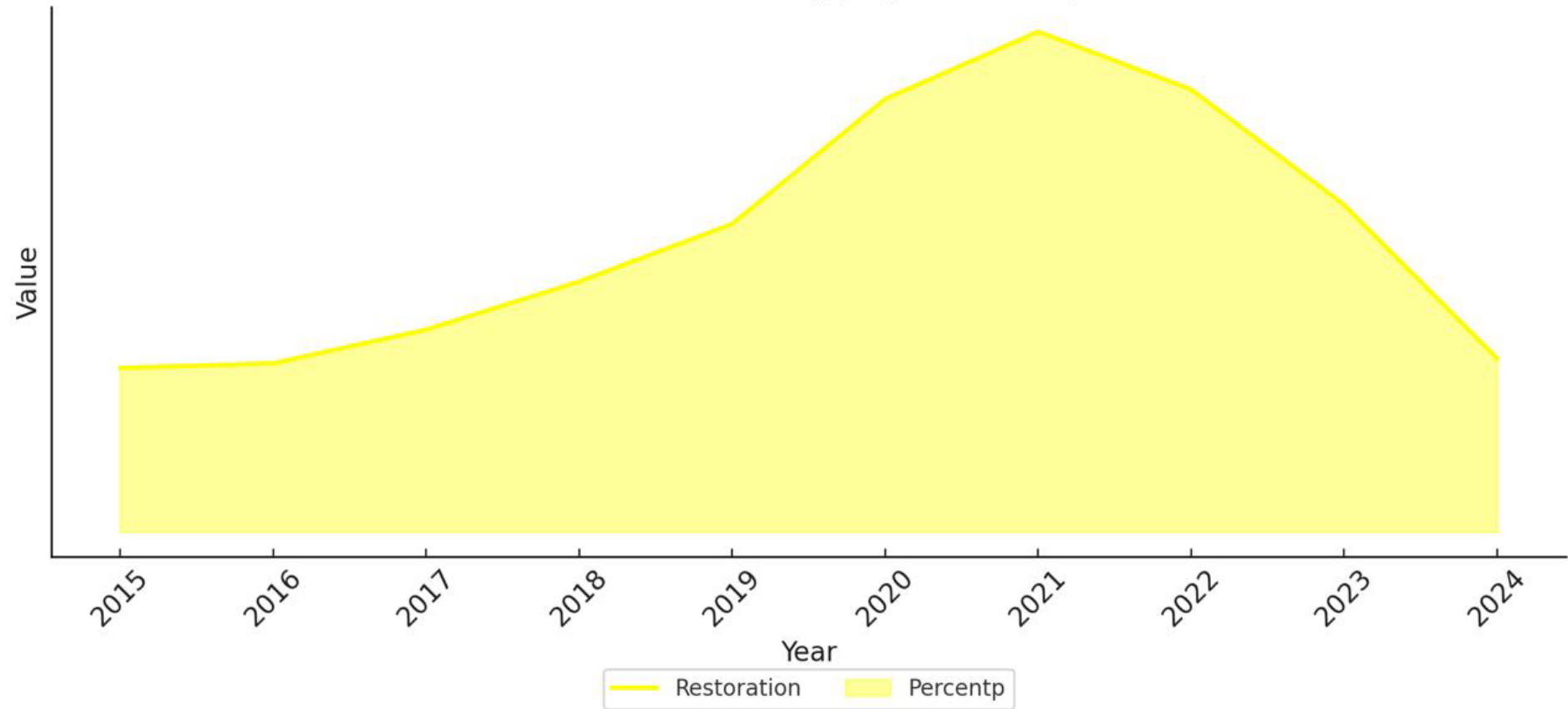
2022



2023

Al-Hawizeh Marsh flooding (2015-2024)

Restoration / Percentp (Improved Match)



Challenges to restore the marsh

- ▶ Declining water flow from the Karkheh River in Iran and the Tigris River (Al Musharrah and Al-Kahla) in Iraq.
- ▶ Increased salinity due to the scarcity of freshwater entering the river, threatening plant and animal life.
- ▶ Iranian dam construction on the Karkheh River.
- ▶ Natural changes: Declining rainfall and increasing evaporation rates (approximately 44% of its water).
- ▶ Lack of an agreement to manage the marshes in particular and other shared waters in general.

Transboundary cooperation is essential.

- Al-Hawizeh and Al-Azim Marshes form a single, interconnected ecosystem that must be sustained through collaborative, transboundary efforts.
- marshes span the Iraq-Iran border, forming one ecological unit despite political boundaries.
- Their hydrological and biological systems are interdependent, meaning degradation on one side affects the entire wetland.
- Joint management is essential to balance water allocations, protect migratory bird routes, preserve biodiversity and traditional livelihoods.
- Cooperative action aligns with international frameworks like the Ramsar Convention and supports regional environmental security.

Track 1. 5 and track 2.0 diplomacy

Bilateral workshops (Track 1.5)

- ▶ The Iraq's Thirst Project held 3 workshops between Iraqi-Iranian experts and academics, the last one was on 28-29 October 2024, under the patronage of the Iraqi PM.
- ▶ An Iranian delegation headed by Undersecretary of the Ministry of Foreign Affairs.
- ▶ The workshop recommended strengthening cooperation between the two countries in the management of Al-Hawizeh/ Azim Marshes, emphasizing on exchanging expertise and experiences and activating international agreements



Academic cooperation (Track 2.0)

- ▶ The Water Diplomacy Center/JUST held in Nasiriyah Governorate the inaugural meeting for the project “Evaluation and Management of Al-Hawizeh/Al-Azim Marsh” supported by the SDC on 23-27/2/2025.
- ▶ The project involved the Tarbiat Modares University in Tehran, and the Engineering Consulting Office at Dhi Qar University.



A future vision towards transboundary cooperation

- The Hawizeh Marsh represents a significant environmental treasure, and its sustainable management requires local and regional cooperation, equitable water guarantees, and the integration of national and international efforts.
- The necessity of strengthening cross-border cooperation, as the marshes (Hawizeh/Azim) represent an integrated ecosystem.
- Developing water quality and biodiversity monitoring programs. The importance of regional cooperation to protect the Hawizeh Marsh as a Ramsar site.
- Adopting standards for adaptive management and response to climate change.



Thanks for listening