

Uchhali wetland complex, Salt Range



Presentation By:

Faiza Rafique

M.Phil (Environmental Science)

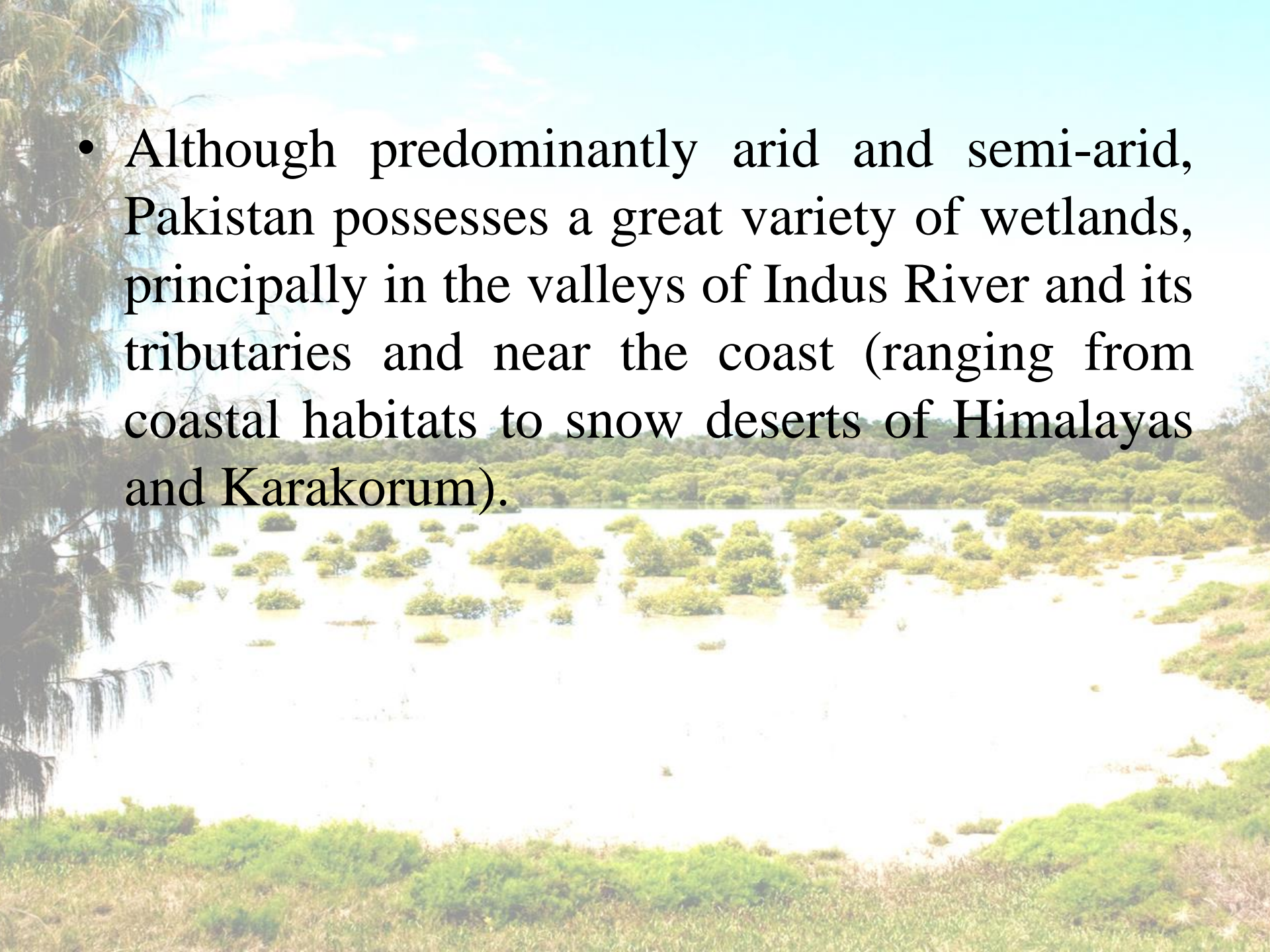
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Wetland

Pakistan is blessed with about 225 significant man-made and natural wetlands. (Ahmad & Ishaque, 2011).

Pakistan has wetlands of diverse nature and environment; these wetlands are seasonal and permanent, covering about 9.7% of land surface.

- Although predominantly arid and semi-arid, Pakistan possesses a great variety of wetlands, principally in the valleys of Indus River and its tributaries and near the coast (ranging from coastal habitats to snow deserts of Himalayas and Karakorum).



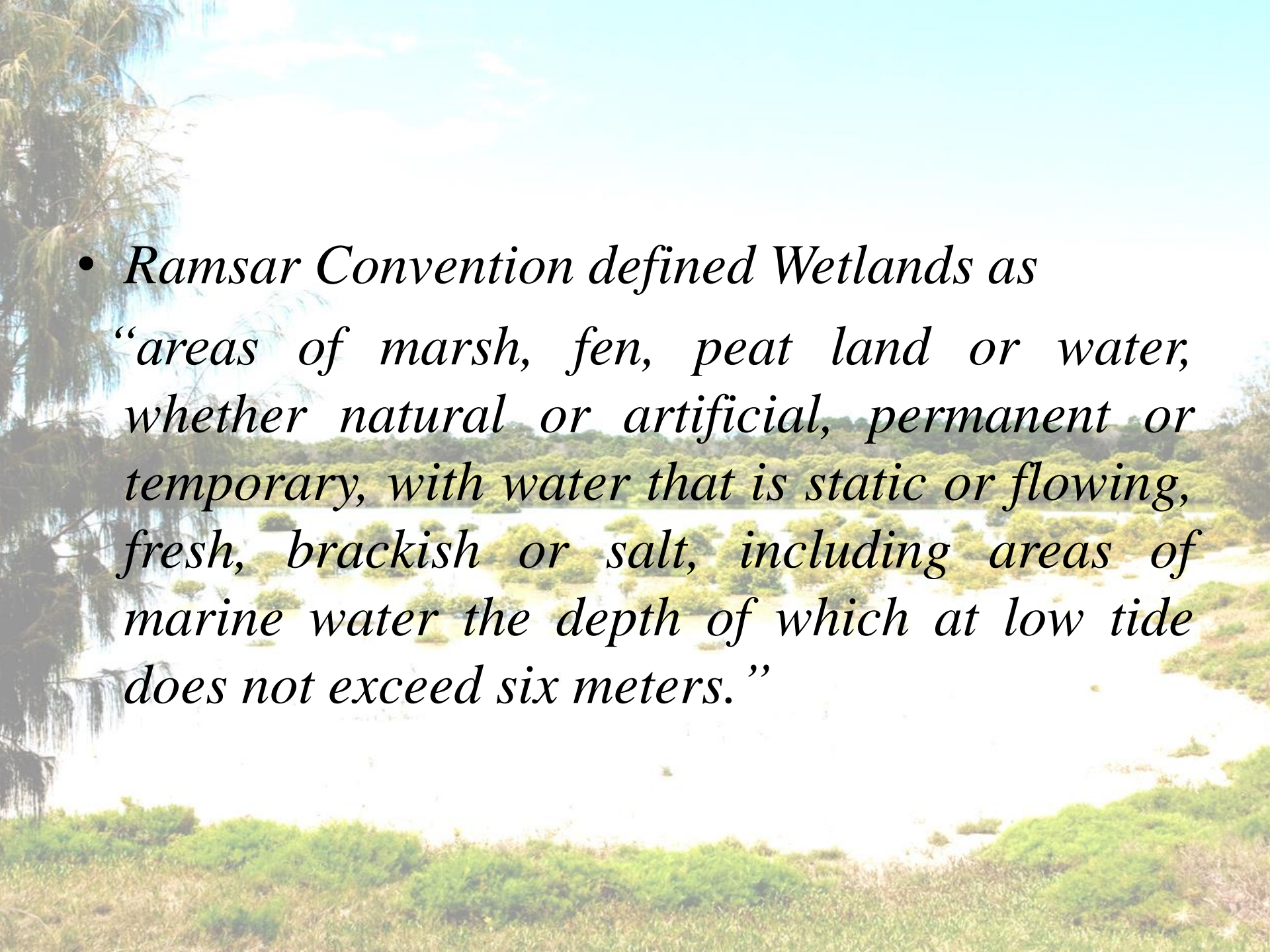
Wetlands



Human survival

Productive
environments

Countless number
of species

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- *Ramsar Convention defined Wetlands as “areas of marsh, fen, peat land or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters.”*

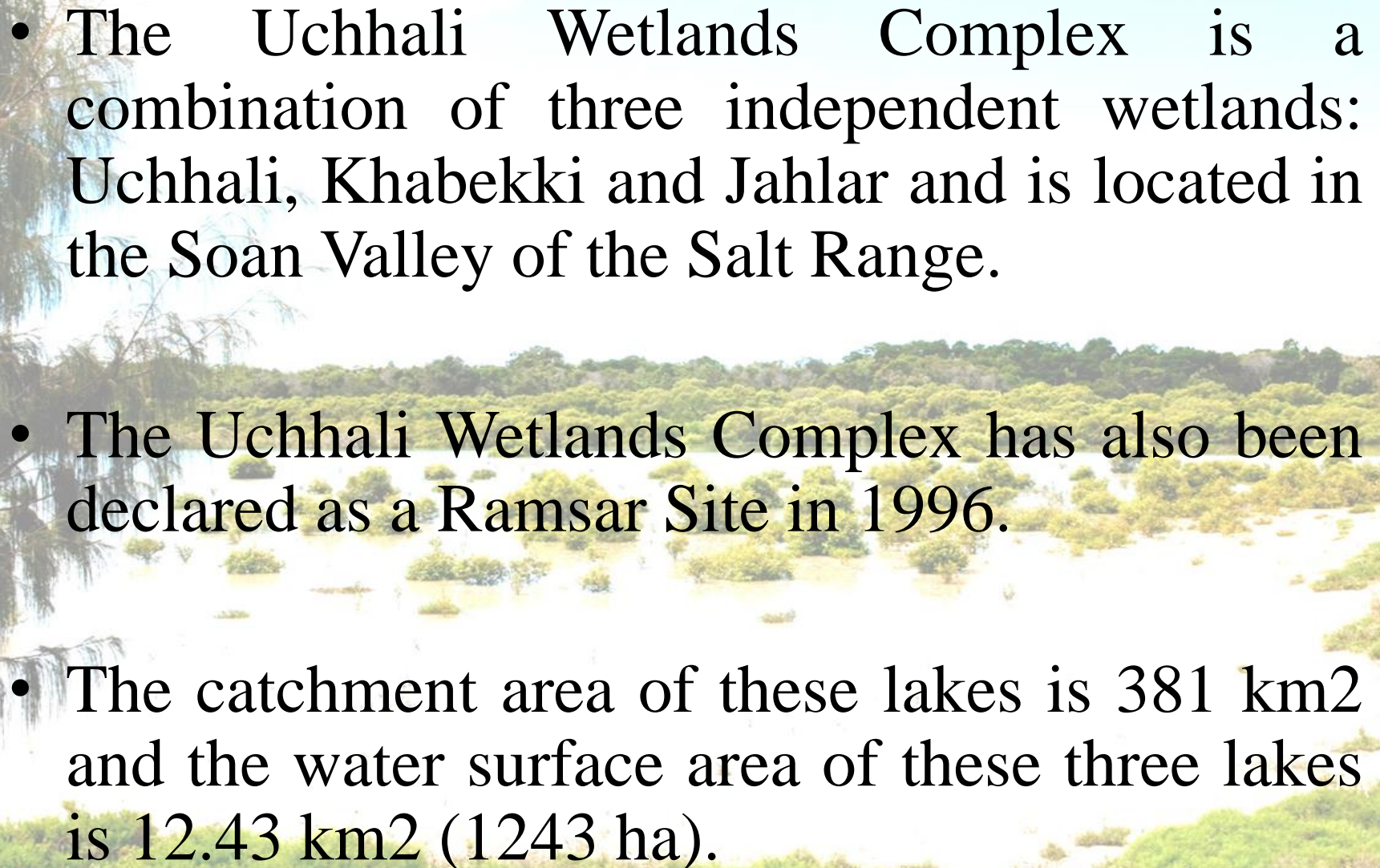


Ramsar Convention

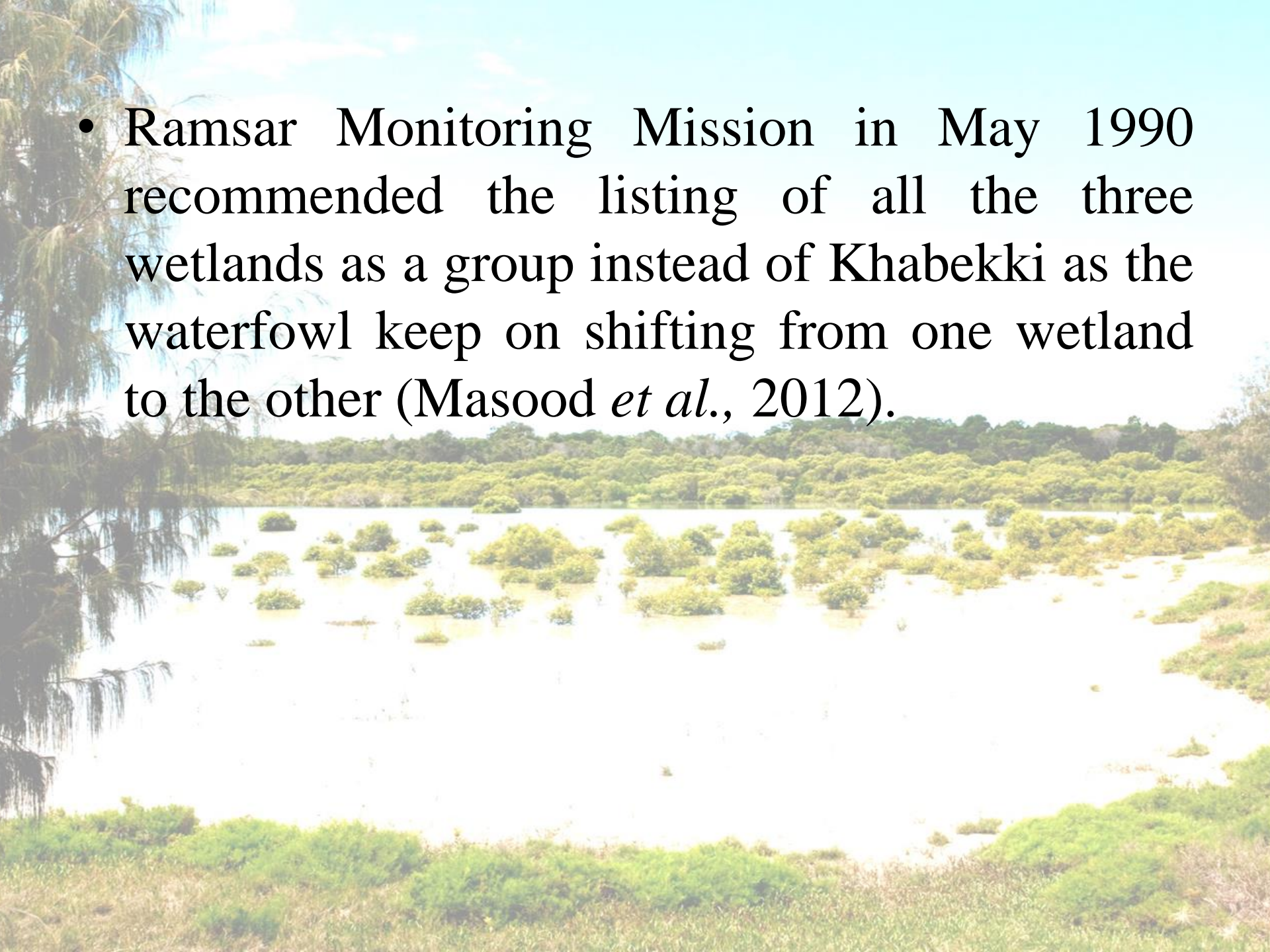
The Convention on Wetlands,
called the Ramsar Convention

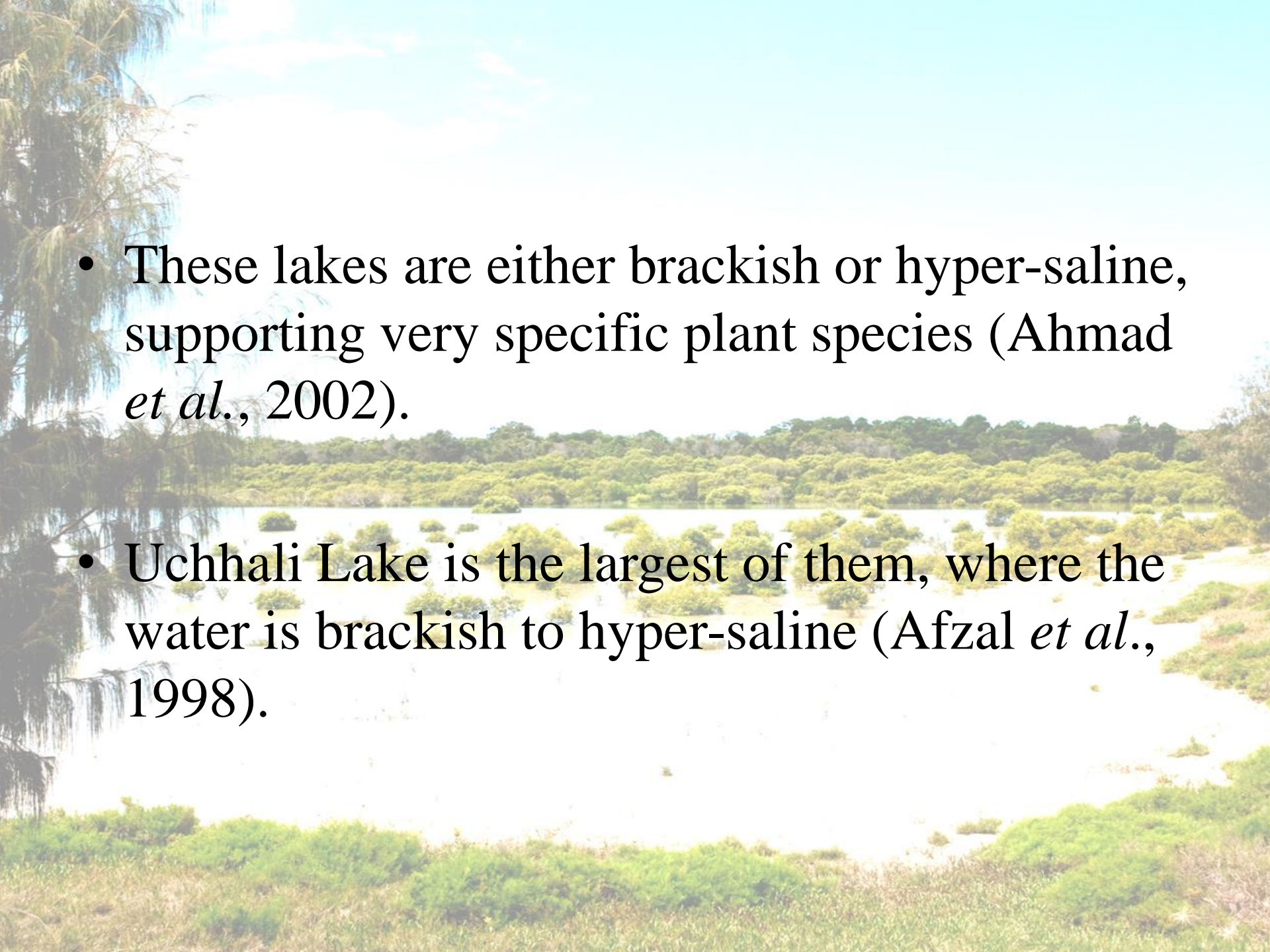
intergovernmental treaty
that provides the framework
for national action and
international cooperation

conservation and wise use of
wetlands and their resources.

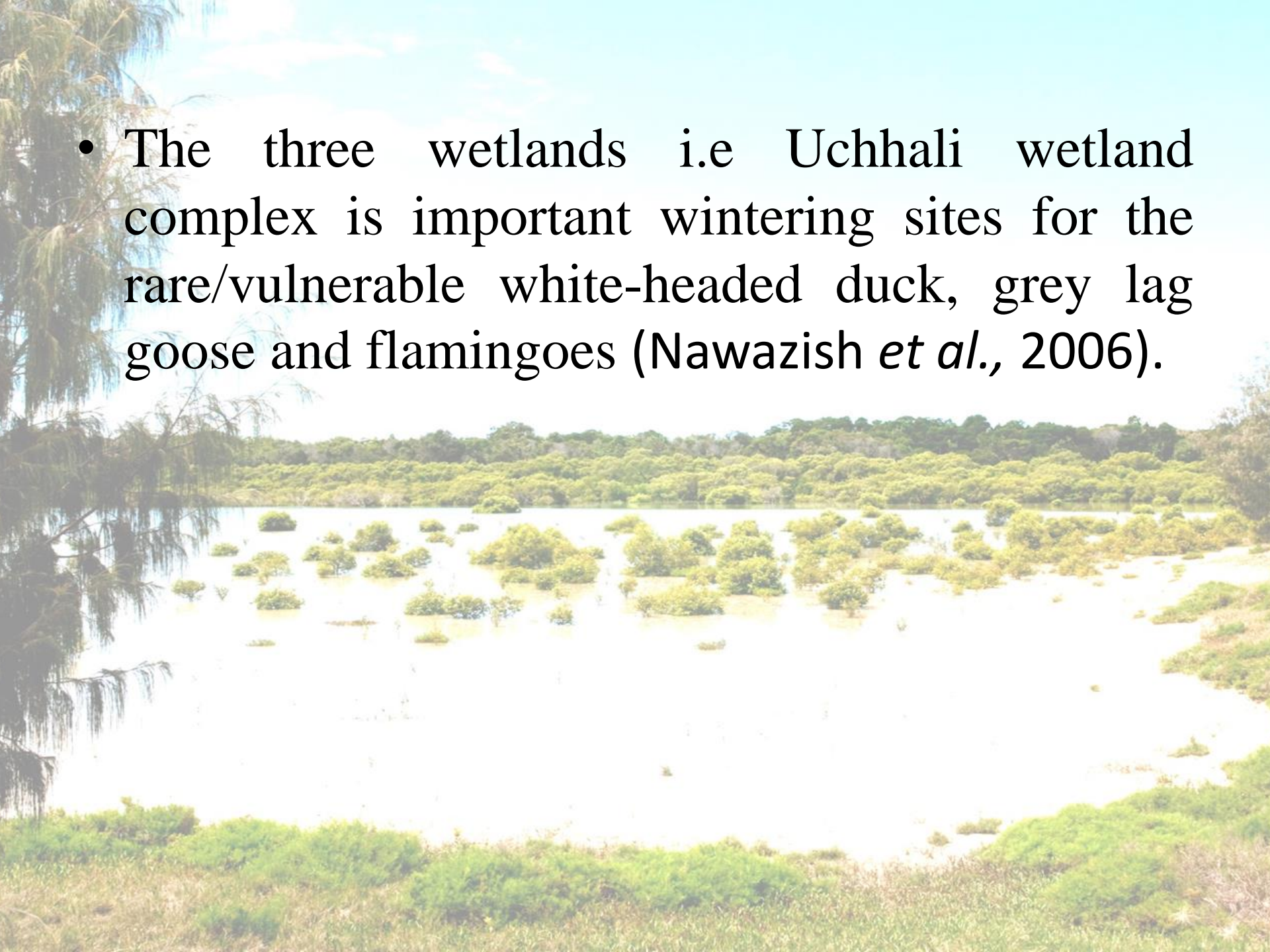
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- The Uchhali Wetlands Complex is a combination of three independent wetlands: Uchhali, Khabekki and Jahlar and is located in the Soan Valley of the Salt Range.
 - The Uchhali Wetlands Complex has also been declared as a Ramsar Site in 1996.
 - The catchment area of these lakes is 381 km² and the water surface area of these three lakes is 12.43 km² (1243 ha).

- Ramsar Monitoring Mission in May 1990 recommended the listing of all the three wetlands as a group instead of Khabekki as the waterfowl keep on shifting from one wetland to the other (Masood *et al.*, 2012).



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- These lakes are either brackish or hyper-saline, supporting very specific plant species (Ahmad *et al.*, 2002).
 - Uchhali Lake is the largest of them, where the water is brackish to hyper-saline (Afzal *et al.*, 1998).

- The three wetlands i.e Uchhali wetland complex is important wintering sites for the rare/vulnerable white-headed duck, grey lag goose and flamingoes (Nawazish *et al.*, 2006).



- The three main lakes of Uchhali Wetland Complex are situated inside a cup shaped catchment area called the Soan Valley (Afzal *et al.*, 1999).



Khabekki Lake



Khabekki Lake

- **Khabekki Lake** is a shallow brackish lake of approximately 283 ha in the Salt Range.
- It is located at an elevation of 740 m above mean sea level.
- The lake is fed by local rainfall and several intermittent streams rising in the surrounding hills.
- The water level has risen by 30-60 cm in recent years, causing an increase in the size of the lake and decrease in salinity.

Jahlar Lake

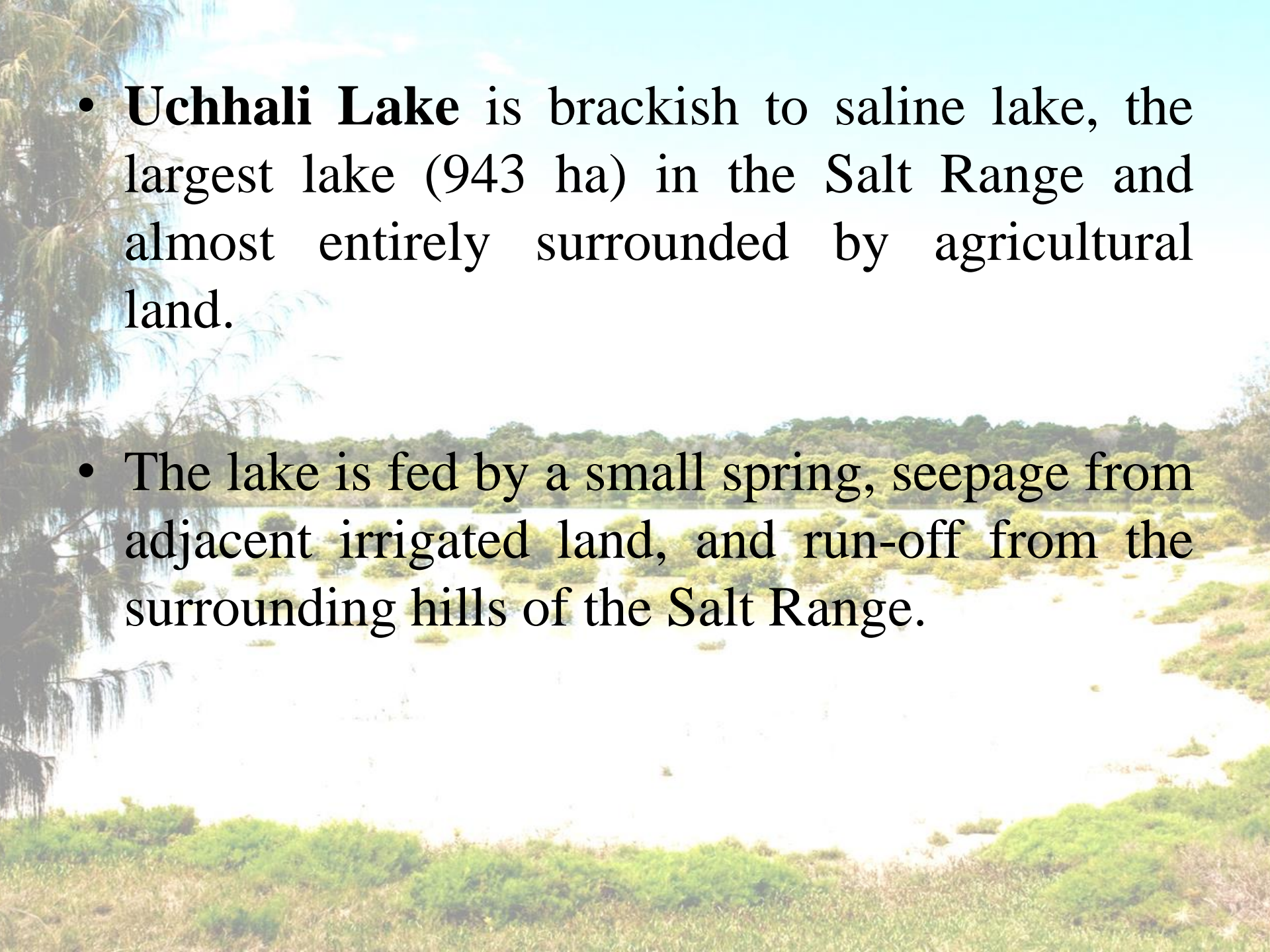


Jahlar Lake

- **Jahlar Lake** is a small brackish to saline lake of 17 ha in the Salt Range.
- The lake is located at an elevation of 819 m above mean sea level.
- The lake is fed by run-off from the surrounding hills of Salt Range.
- The depth of the lake varies from 0.2 m to 6 m depending on the amount of rainfall received.

Uchhali Lake

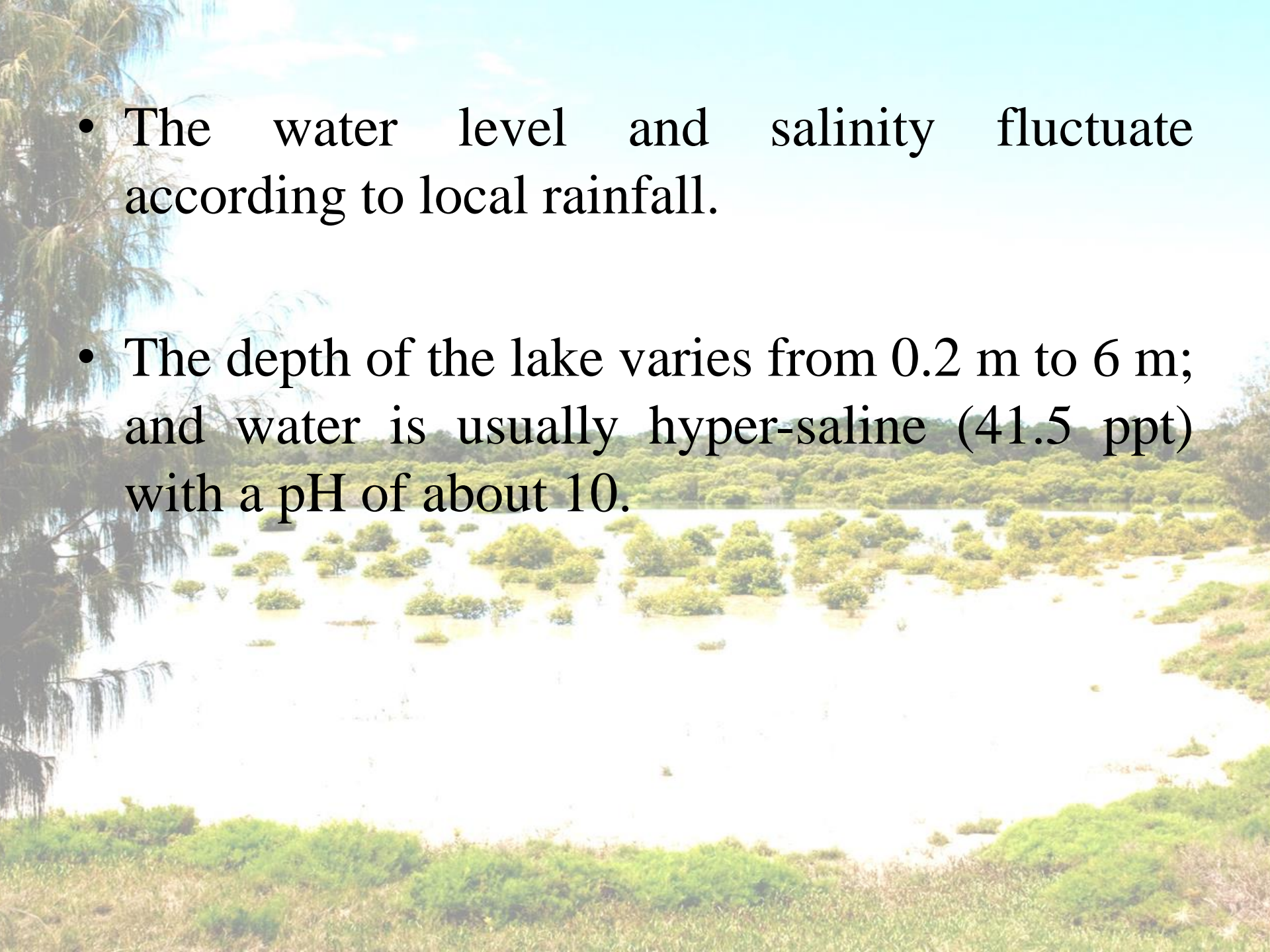


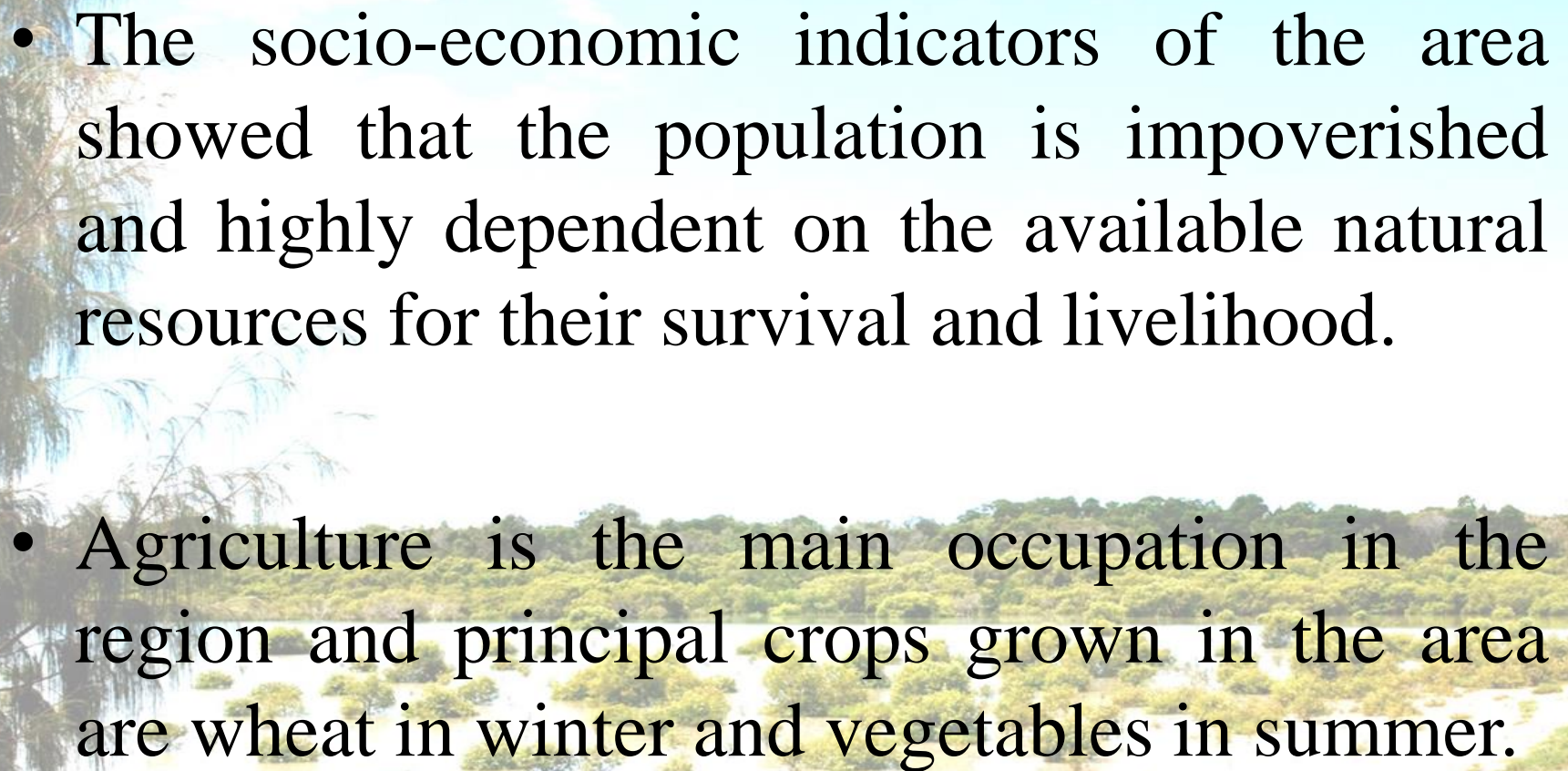


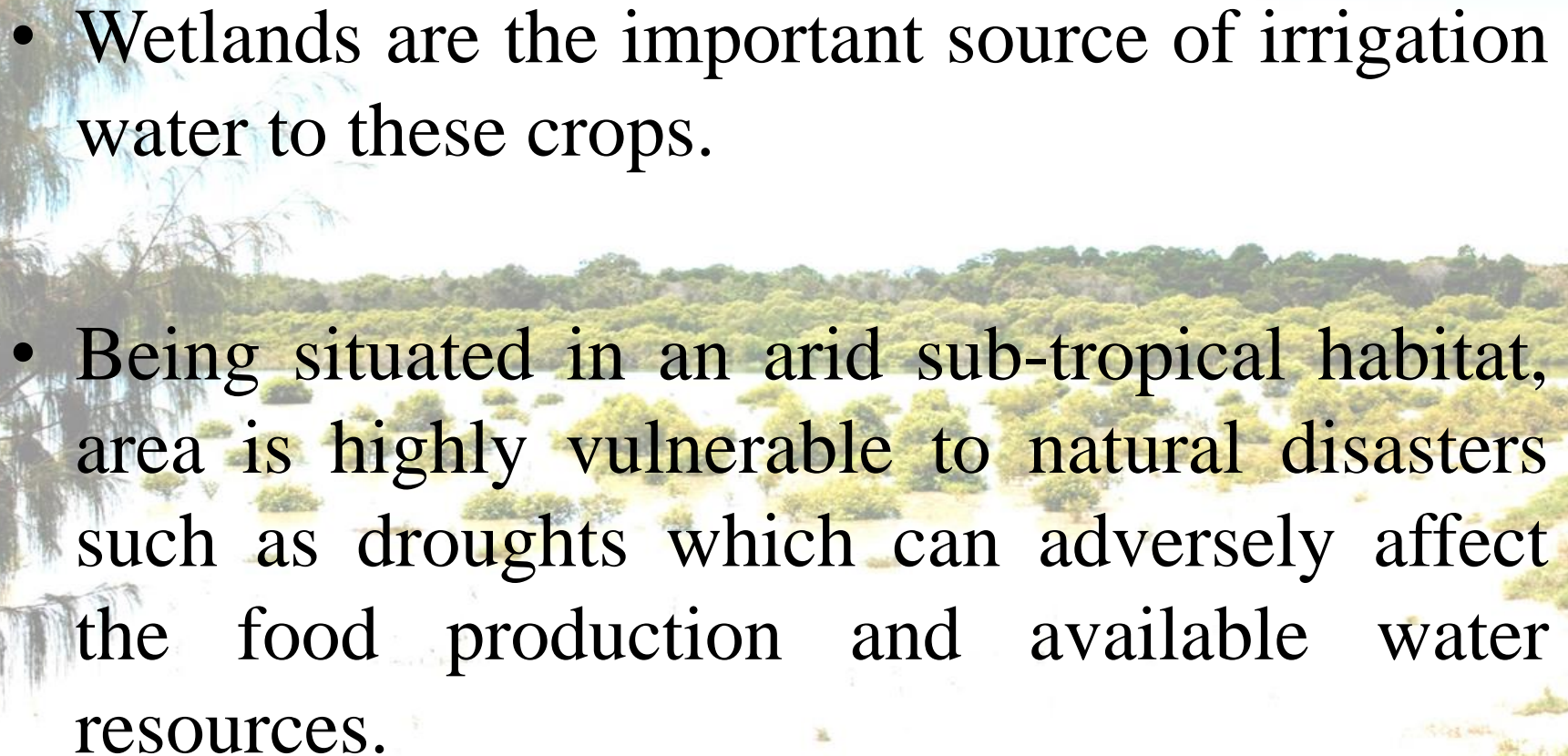
- **Uchhali Lake** is brackish to saline lake, the largest lake (943 ha) in the Salt Range and almost entirely surrounded by agricultural land.

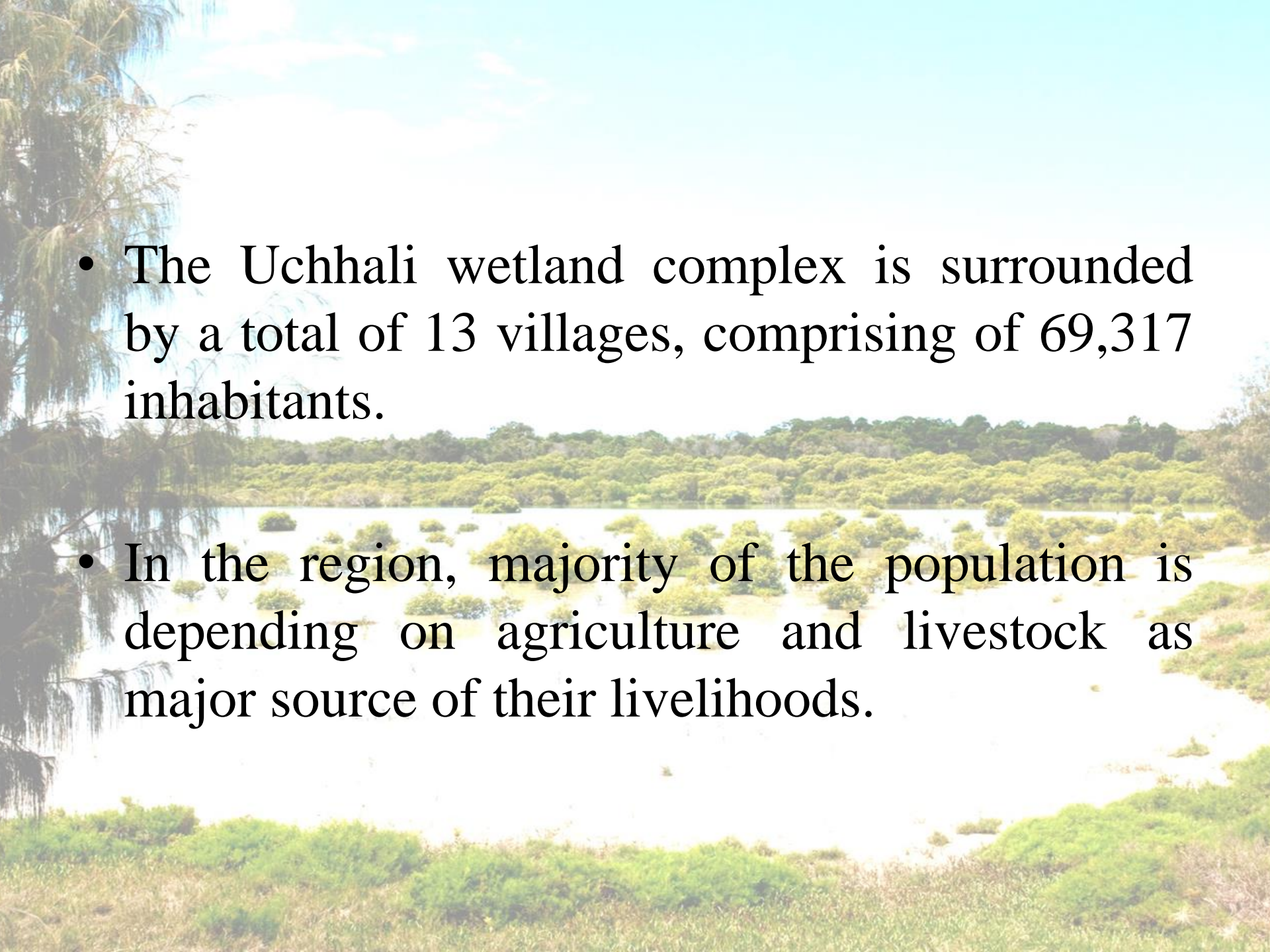
- The lake is fed by a small spring, seepage from adjacent irrigated land, and run-off from the surrounding hills of the Salt Range.

- The water level and salinity fluctuate according to local rainfall.
- The depth of the lake varies from 0.2 m to 6 m; and water is usually hyper-saline (41.5 ppt) with a pH of about 10.



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- The socio-economic indicators of the area showed that the population is impoverished and highly dependent on the available natural resources for their survival and livelihood.
 - Agriculture is the main occupation in the region and principal crops grown in the area are wheat in winter and vegetables in summer.

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- Wetlands are the important source of irrigation water to these crops.
 - Being situated in an arid sub-tropical habitat, area is highly vulnerable to natural disasters such as droughts which can adversely affect the food production and available water resources.

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- The Uchhali wetland complex is surrounded by a total of 13 villages, comprising of 69,317 inhabitants.
 - In the region, majority of the population is depending on agriculture and livestock as major source of their livelihoods.

- *Besides recharging groundwater supplies and trapping floodwaters, wetlands serve a variety of important ecological functions*





Thanks