

## How the Indus Valley Civilisation coped with climate change?

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• The Indus Valley Civilisation underwent a period of climate change about 4,000 years ago, say scientists who suggest that the ancient population in India used a variety of subsistence practices to cope with diverse environments.

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 Researchers from the University of Cambridge in the UK and Banaras Hindu University studied the dynamics of adaptation and resilience in the face of a diverse and varied environmental context, using the case study of the Indus Civilisation.

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## What they looked at?

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- They looked at **how Indus populations in north-west India interacted with their environment,** and considers how that environment changed during periods of climate change.
- Researchers showed that this region was subject to climate change during the period when the Indus Civilisation was at its height (2500-1900 BC).
- The civilisation provides a unique opportunity to study how an ancient society coped with diverse and varied ecologies and change in environmental parameters.

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## What they found?

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• The Indus Civilisation was situated close to lake **Kotla Dahar**, which would have been primarily monsoonal. **The lake showed evidence for two** 

## dramatic decreases in monsoon rainfall and a progressive lowering of the lake level.

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- The second of these shows Kotla Dahar becoming ephemeral during 2200-2000 BC as a result of an abrupt weakening of the monsoon, which is visible in **speleothem** (features made by minerals deposited in a cave by the action of water) records in Oman and northeast India.
- The proximity of the Kotla Dahar record to the area occupied by Indus populations shows that climate must be formally considered as a contributing parameter in the process of Indus de-urbanisation.
- It has long been hypothesised that there was variation in the subsistence practices used by Indus populations and this fits with the theme of coping with diverse environments.
- "We argue that rather than being forced to intensify or diversify subsistence practices in response to climatic change, we have evidence for the use of millet, rice, and tropical pulses in the pre-urban and urban phases of the Indus Civilisation. This evidence suggests that local Indus populations were already well adapted to living in varied and variable environmental conditions before the development of urban centres," said Cameron Petrie, the lead author from of Cambridge.

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**Source: Live Mint** 

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