

Socio-Cultural Parameters In The Indian E-Flow Context



Nature Is The Foundation of Culture

A Land Without Rivers Is Different From A Land With Flowing
Rivers



RAJASTHAN

Physical Regions

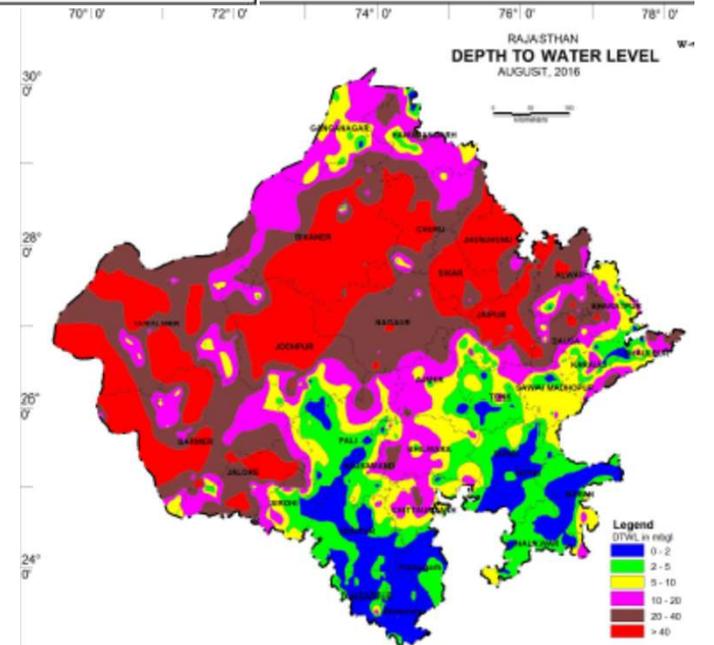


Figure 10: Depth to Water Level (August 2016)



❖ Is the anaemic flow in our rivers affecting the related socio-cultural aspects of riparian communities

❖ Can socio-cultural requirements become a criteria in determining required flows

❖ If yes, then can the factor have a numeric value

Socio-Cultural Services Afforded By River Flows

- Setting for Rituals
- City Orientation and The River Front
- Food Culture
- Landscape Aesthetics

UNESCO

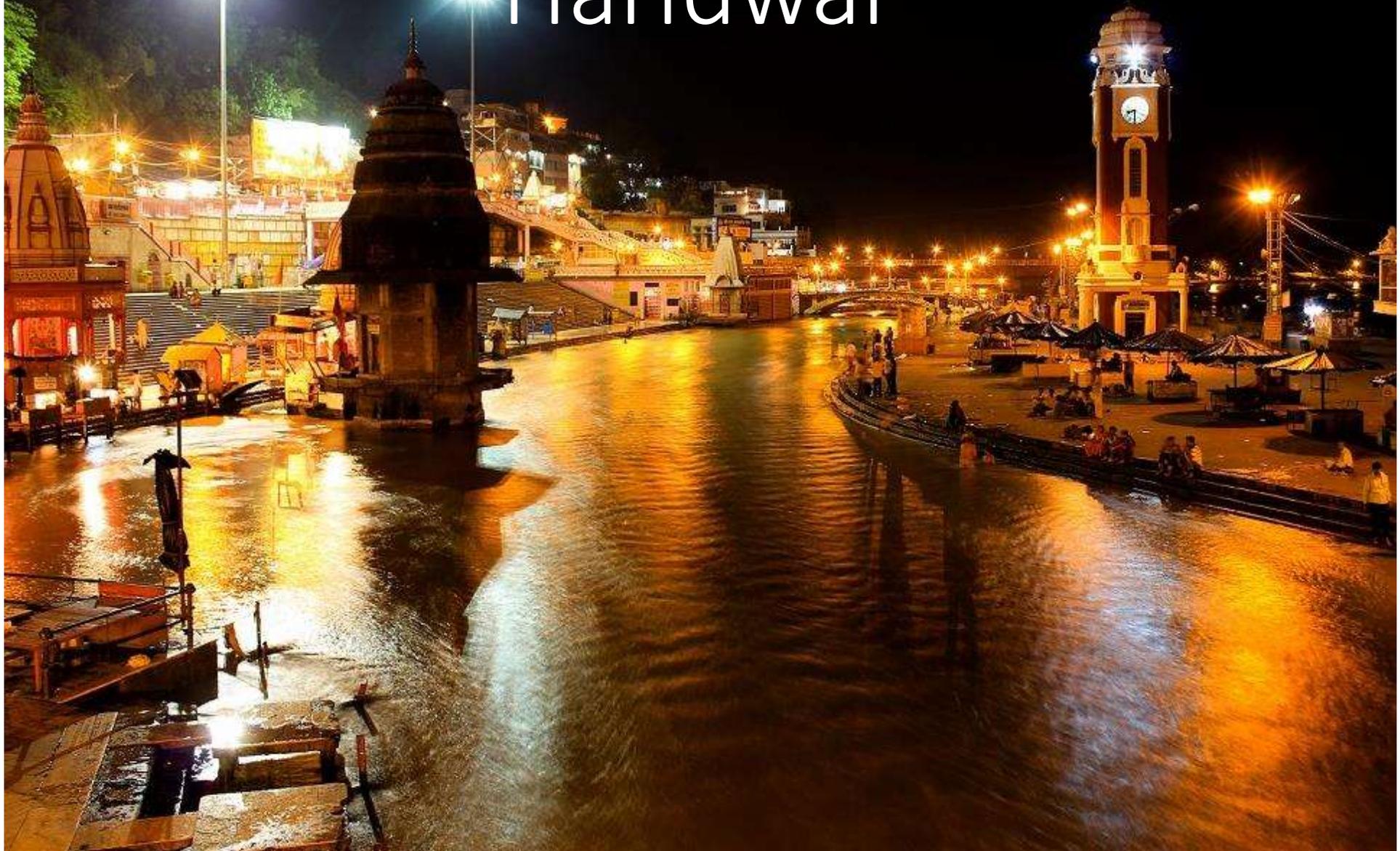
The 'River Culture' approach acknowledges that human well-being and the maintenance of both biological and cultural diversity depend on the same factors [natural habitat dynamics, water quality, diverse eco-system services].

In the Indian context there is the additional and primary factor with many rivers being considered divinities.

Not all Rivers Have The Same Level of Sanctity

Ritual aspects of the river are prominent during the non-monsoon seasons

The Ganga Barrage at Haridwar





Google Earth

© 2018 Google
Image © 2019 Maxar Technologies



700 m



The Cultural Economy

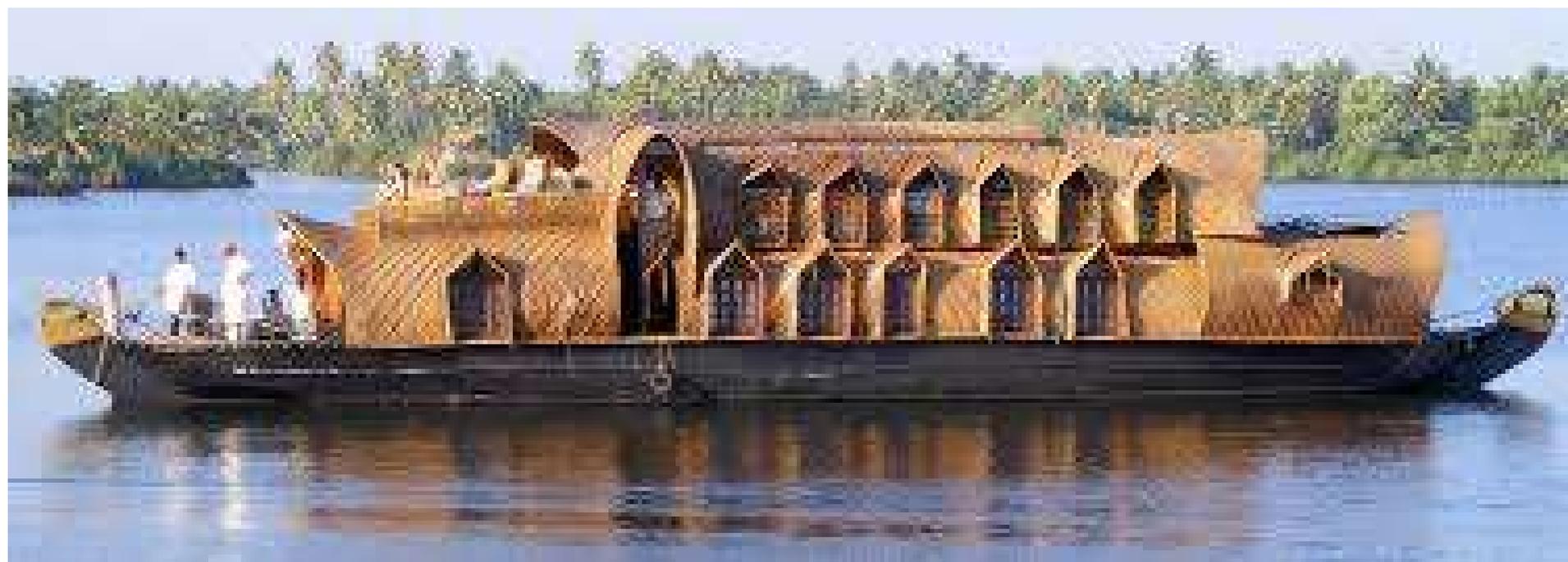


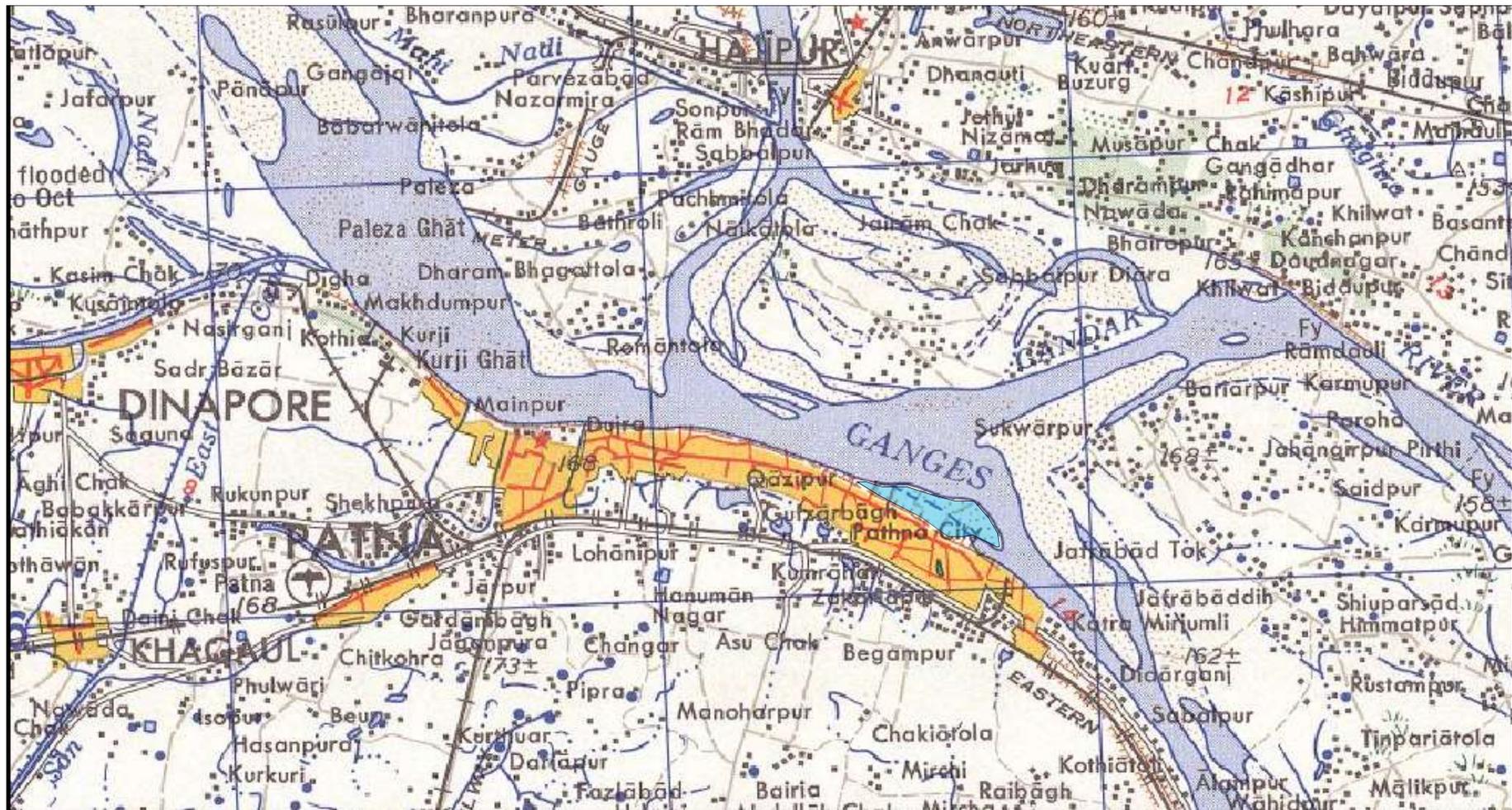


Boats on River Ganga transporting Chunnar stone|British Museum Library





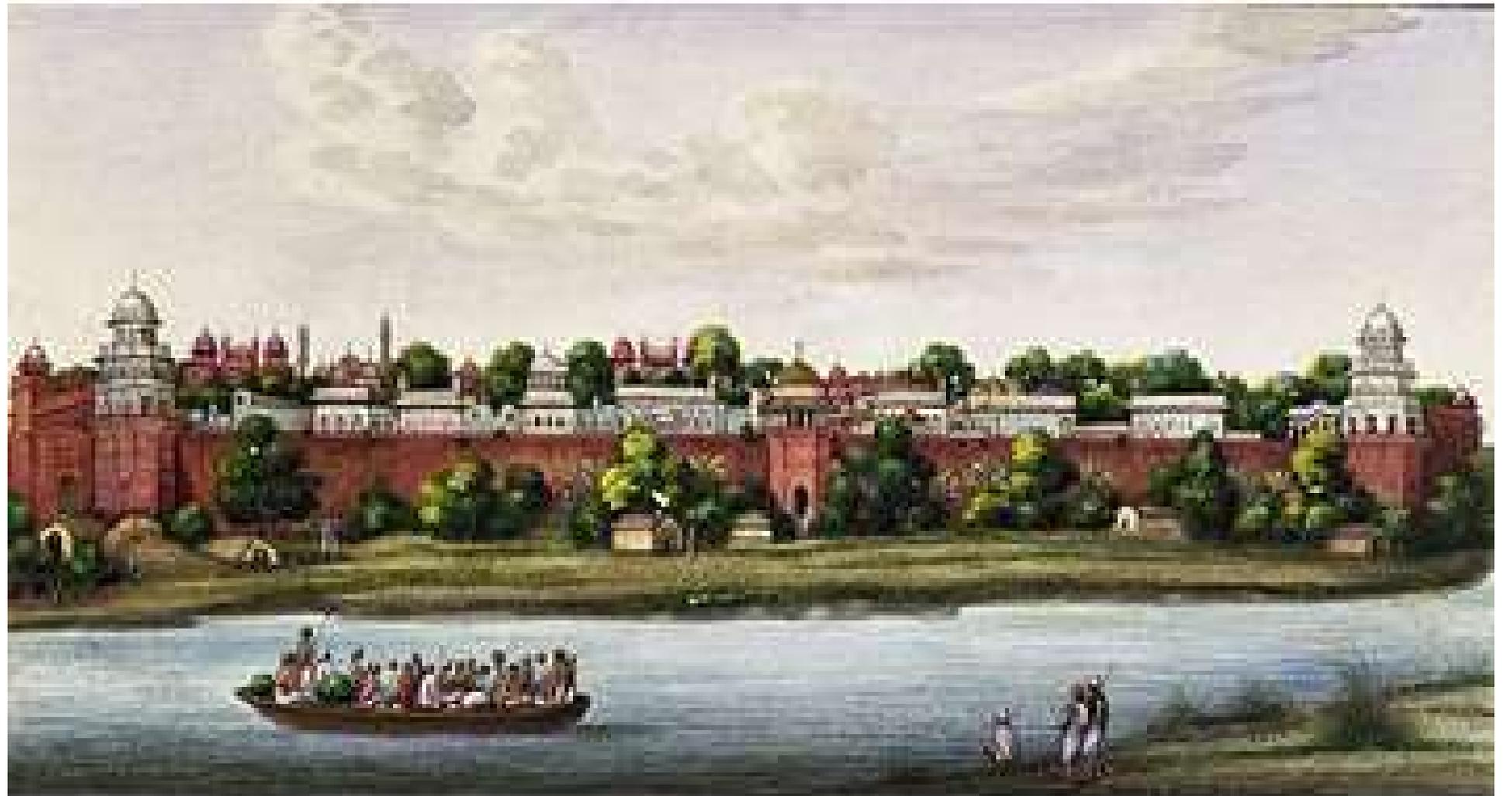


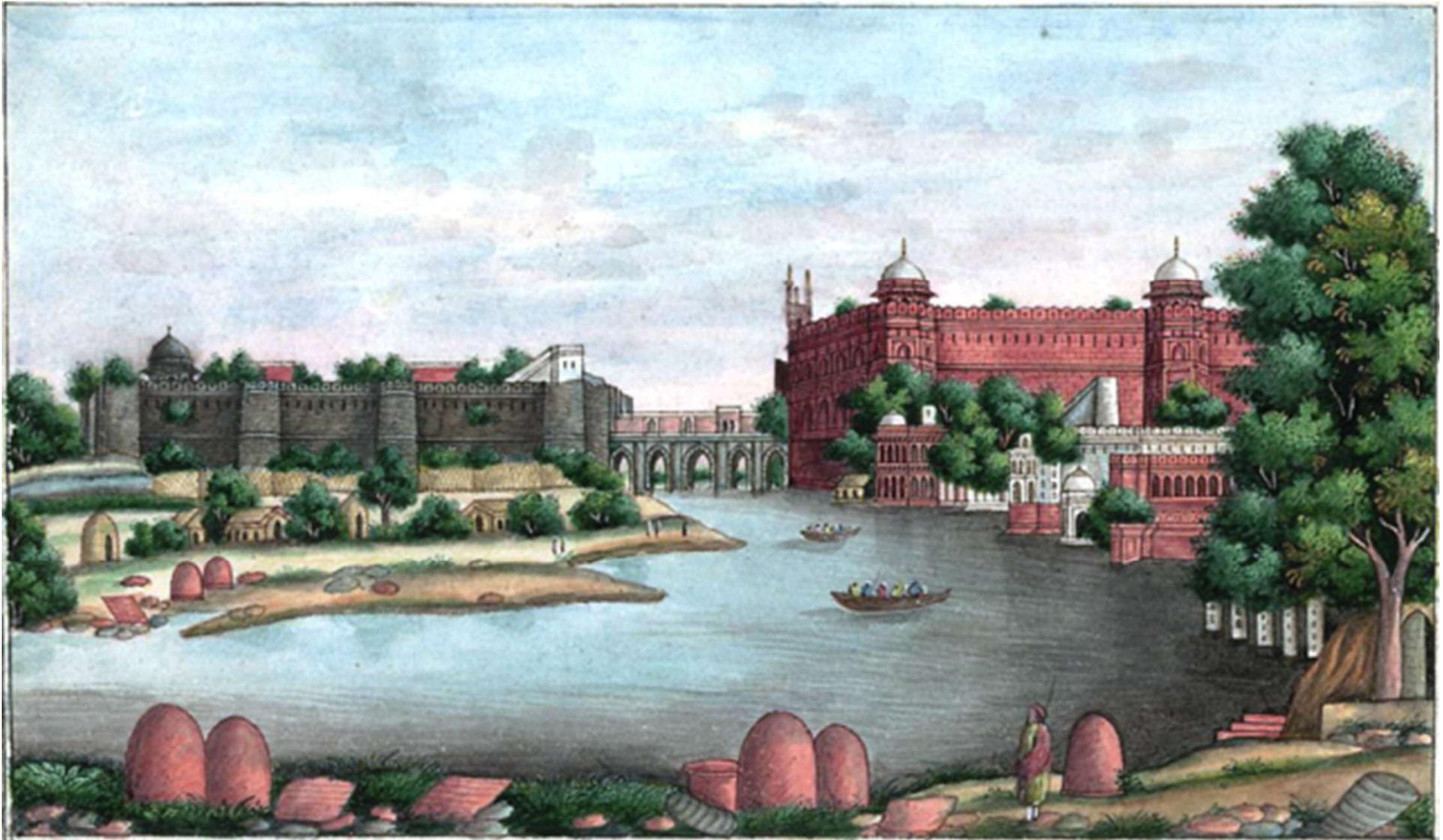


SOI Map (1969) Showing Early Stage of Land Formation On Southern Bank

The River Front:

Meandering Of The River: The river has meandered away from the southern bank. The SoI map of 1931 shows the land formation on the southern bank in the Takhat Patna Sahib stretch in progress.





Cities Turn Their Backs To The River

Ganga Arti at Varanasi



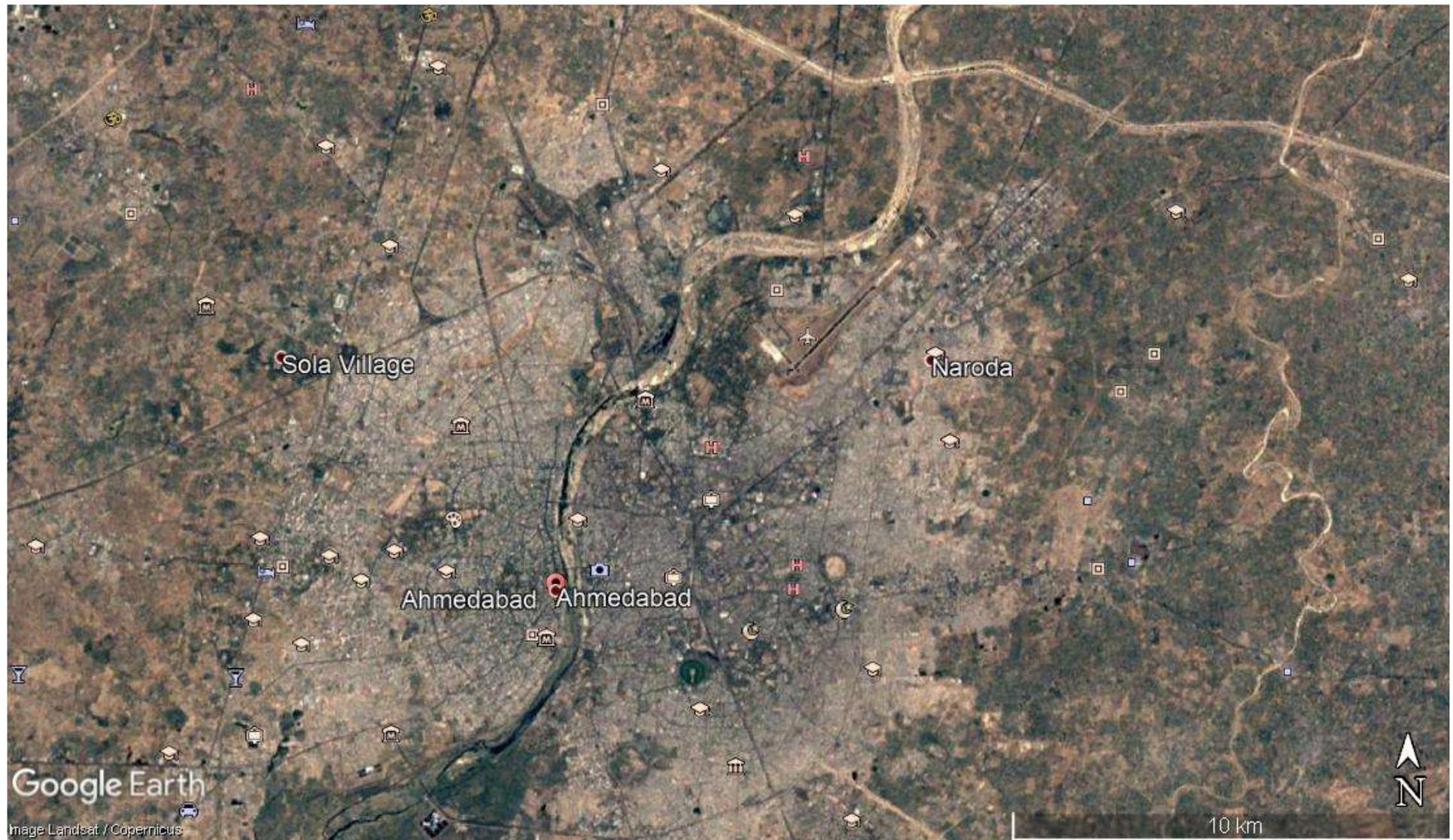




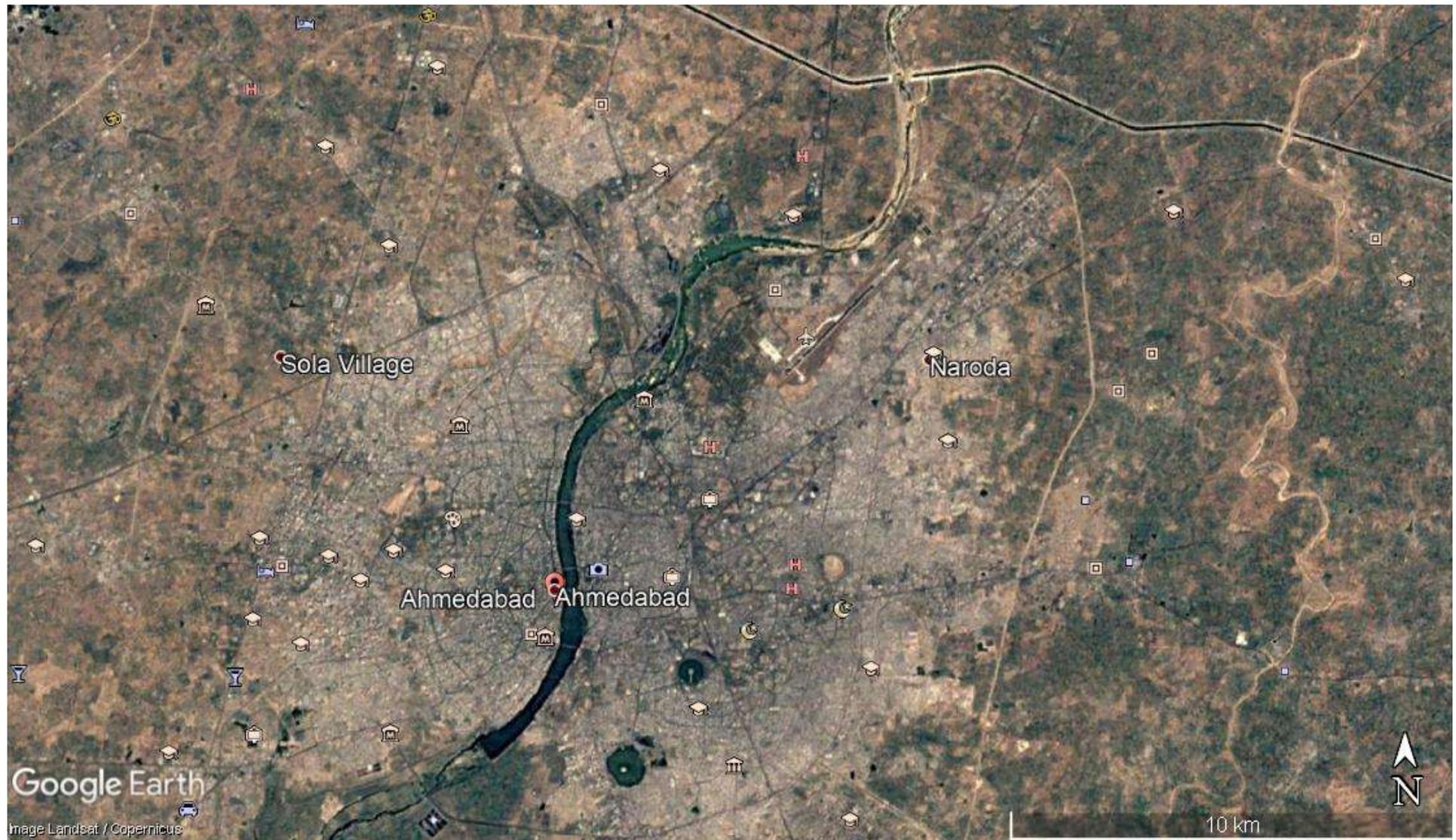
Sabarmati



Sabarmati – Dry Course, 2001



Sabarmati – Dry Course, 2001



Sabarmati – Completed Project



The Yamuna River





The Yamuna River – will reverence not decline



YEARNING FOR GLORY DAYS

With the customary opening of Mettur dam not taking place on June 12 due to poor storage level, the Cauvery river bed sports a bone dry appearance in Tiruchy on Thursday | **M K ASHOK KUMAR**



Fri, 16 June 2017

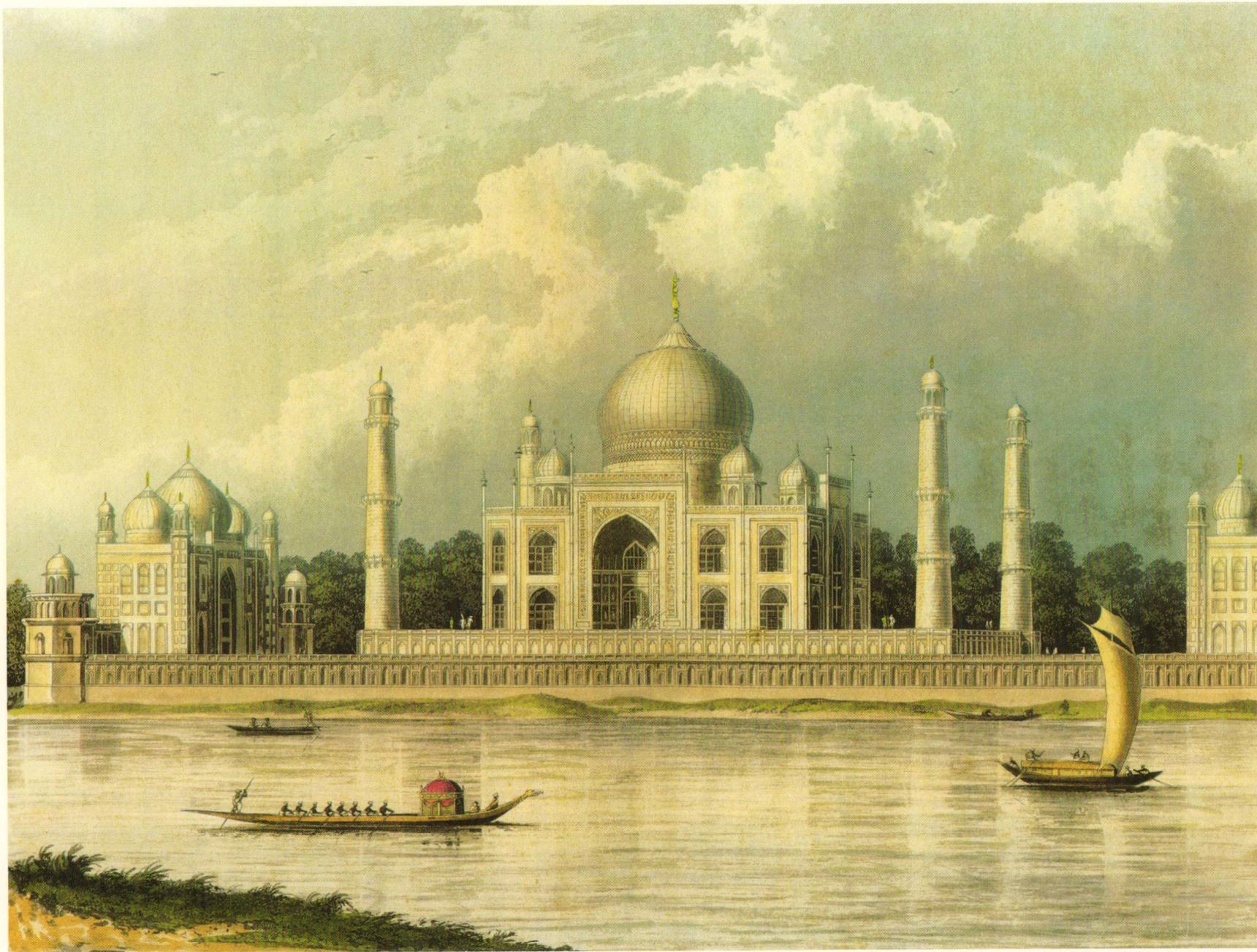
epaper.newindianexpress.com/c/19844240



Bhagwat Ghat, Mahapushkaram in Kumbakon in Sept.







The TAJ MAHAL, Tomb of the EMPEROR SHAH JEHAN and his QUEEN.

T. Sutherland sculp!





ORCCHA



MIRZAPUR



Chet Singh Fort



SRINGAVERAPURA

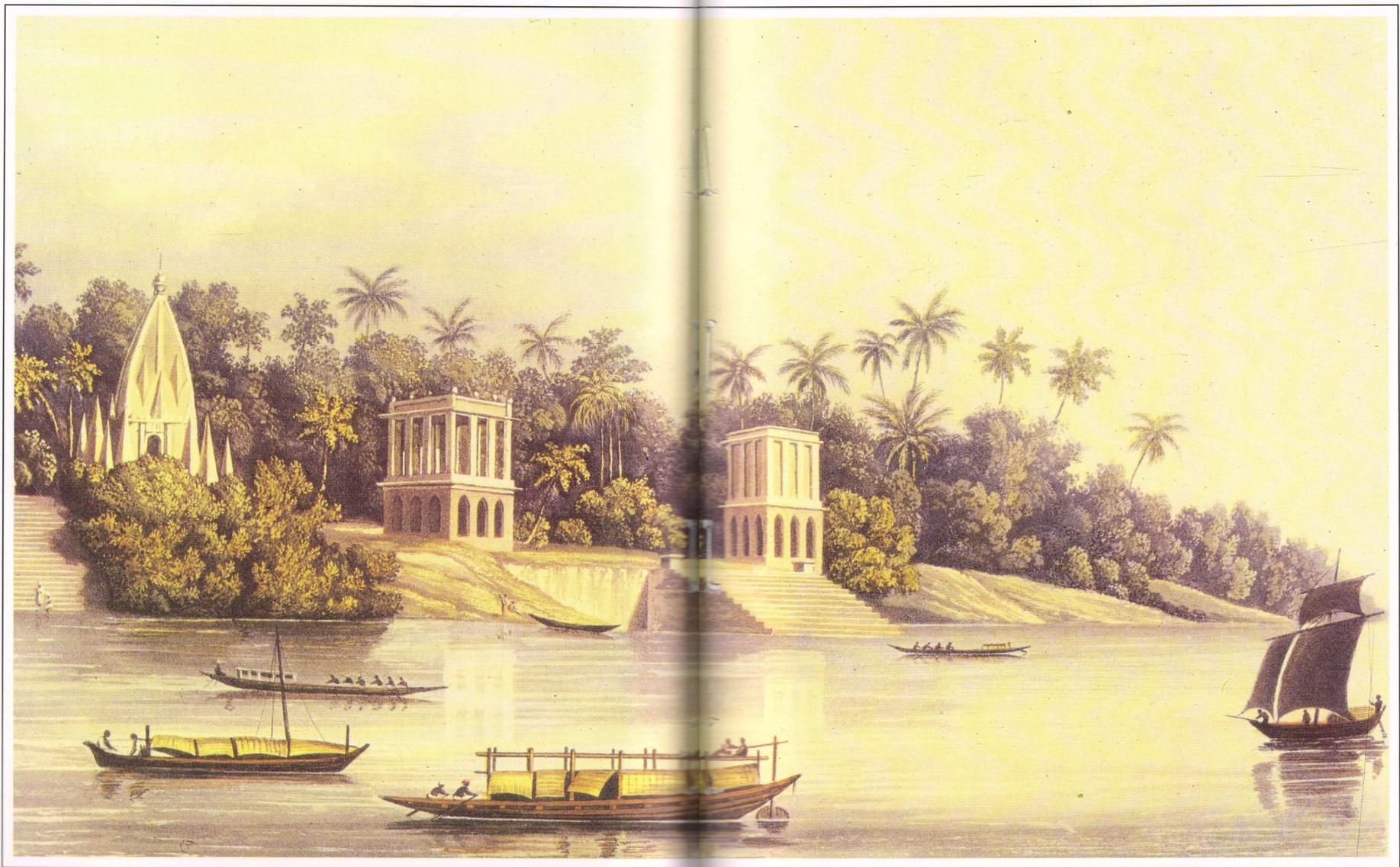


Darbhangha Palace Patna





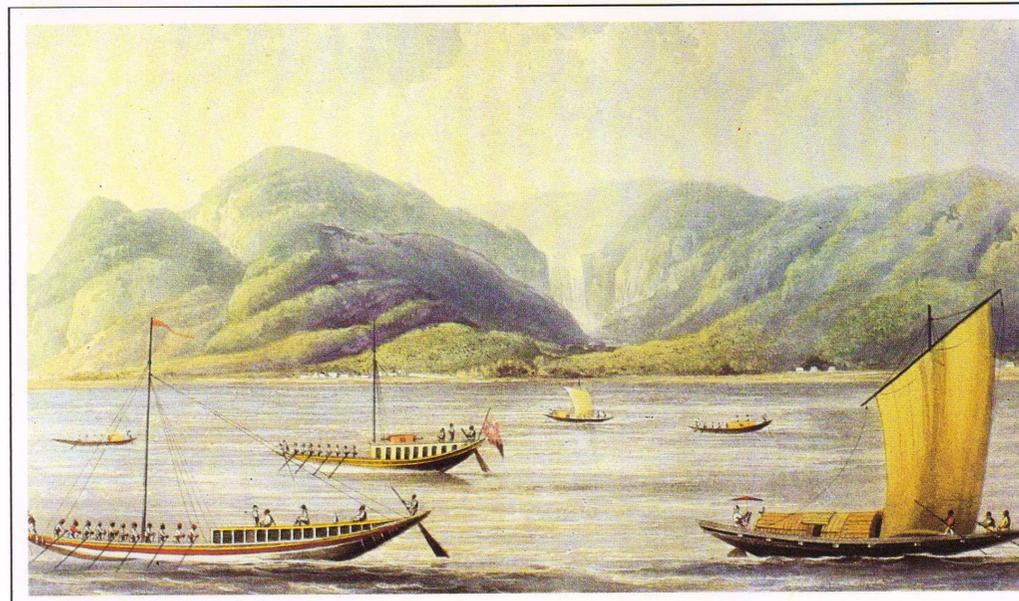
A Vanishing Era – Life on the River



Barrackpore



Riparian
Communities



The Boat
People and
River Songs



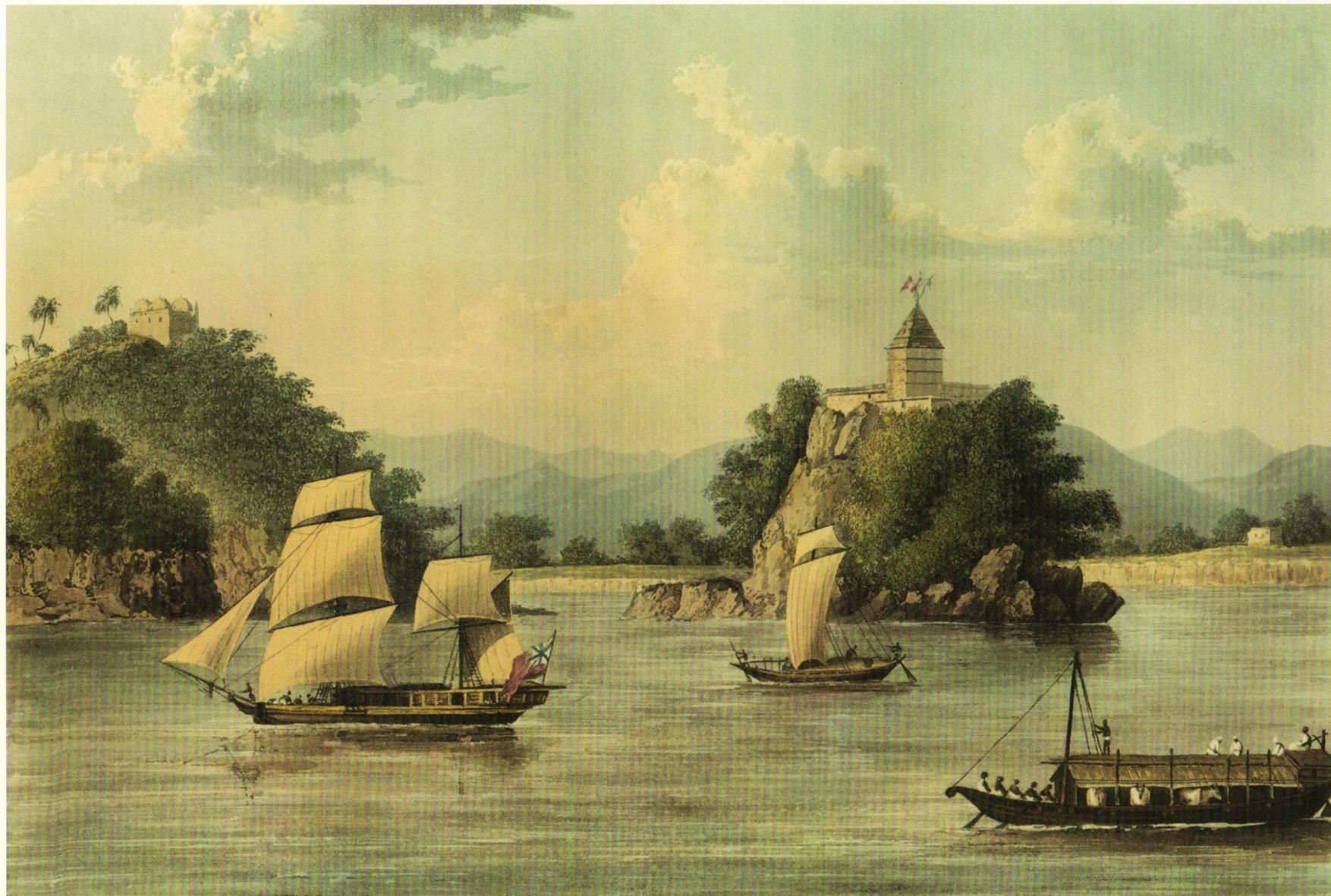
The River Butar. Ganges in the foreground and part of Lord Moira's Fleet

15. Lord Hastings's flotilla on the river, with many pinnace budgerows
By Sita Ram. c.1810-22.

From : Victor Mallett

Storm on the Ganges – William Hodges, 1790





The FAKER'S ROCK at JANGUIRA.
NEAR SULTANGUNJ.

T. Sutherland sculp.

London Published by R. ACKERMANN, 101, Strand, Sept. 1, 1824.



Gangotri, Fraser, 1820

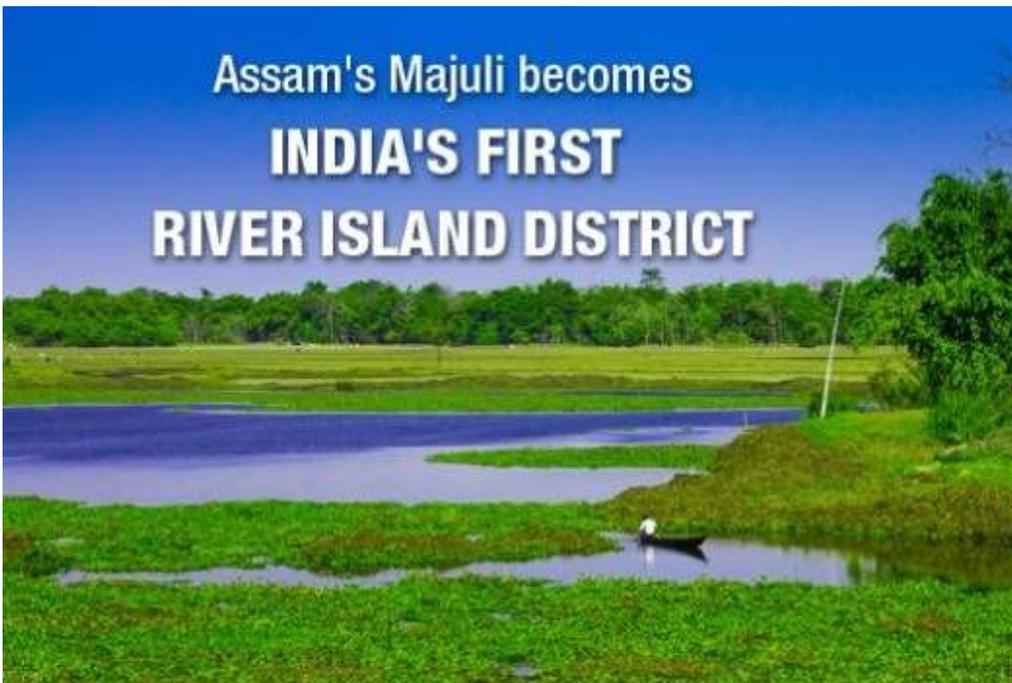
HILSA

The Vanishing Food Culture





Majuli Island

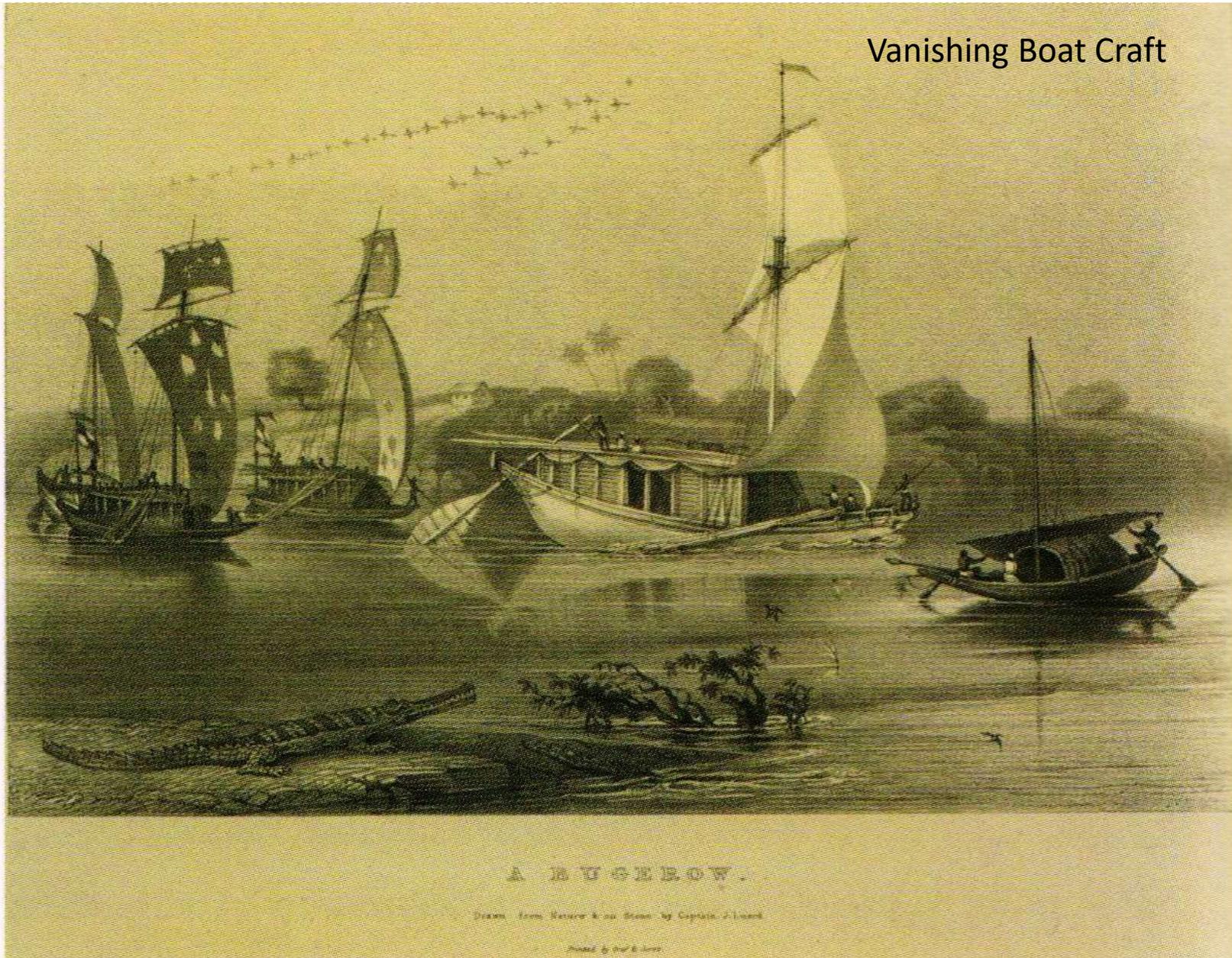


Assam's Majuli becomes
INDIA'S FIRST
RIVER ISLAND DISTRICT





Vanishing Boat Craft



A BUDGEROW.

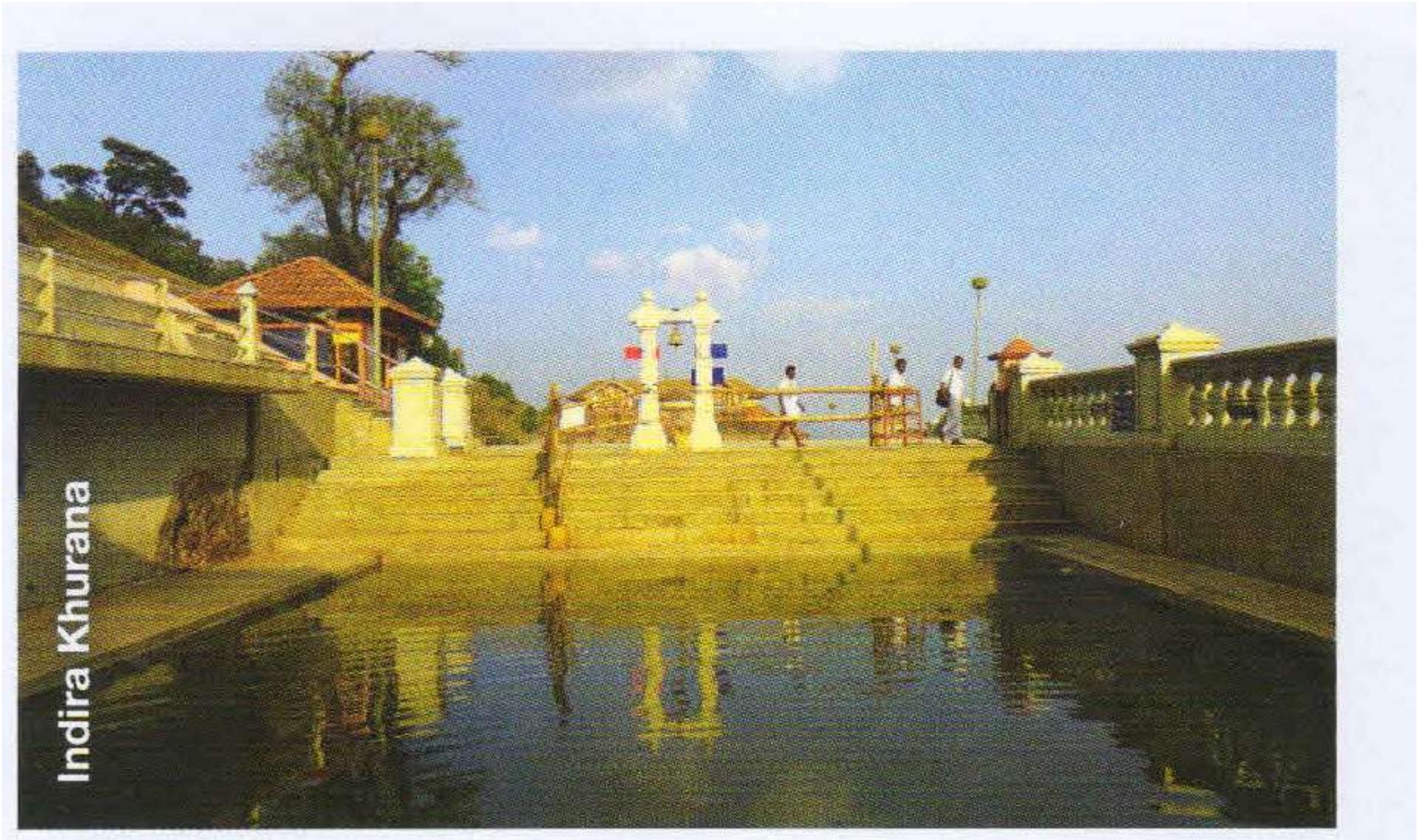
Drawn from Nature & on Stone by Captain J. Luard.

Printed by W. & A. G. Smith.

14. Budgerows, the traditional boats of the Ganges. Lithograph by John Luard, c.1830.

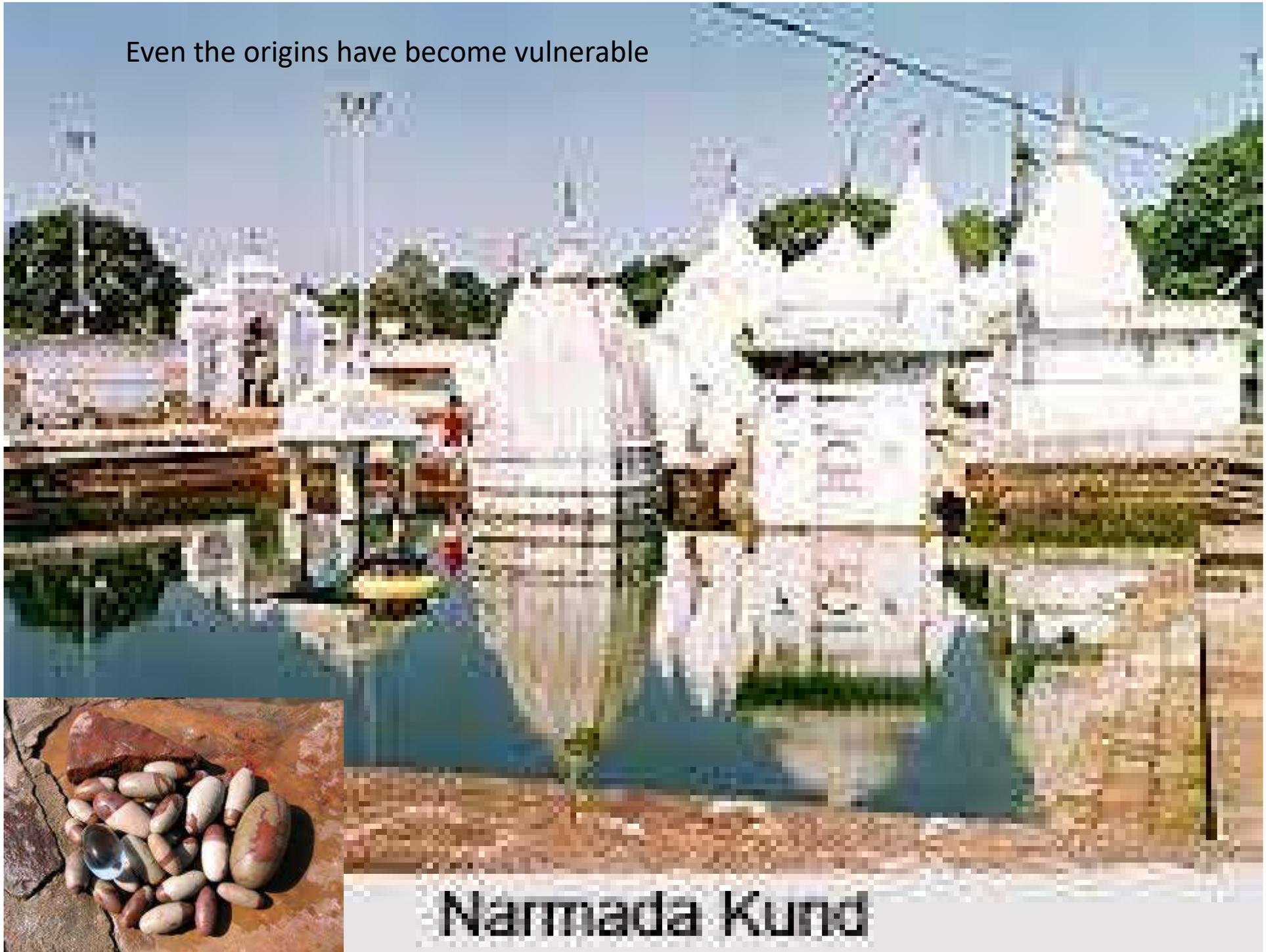
From : Victor Mallett

Origin of Cauvery, Coorg



Indira Khurana

Even the origins have become vulnerable



Narmada Kund

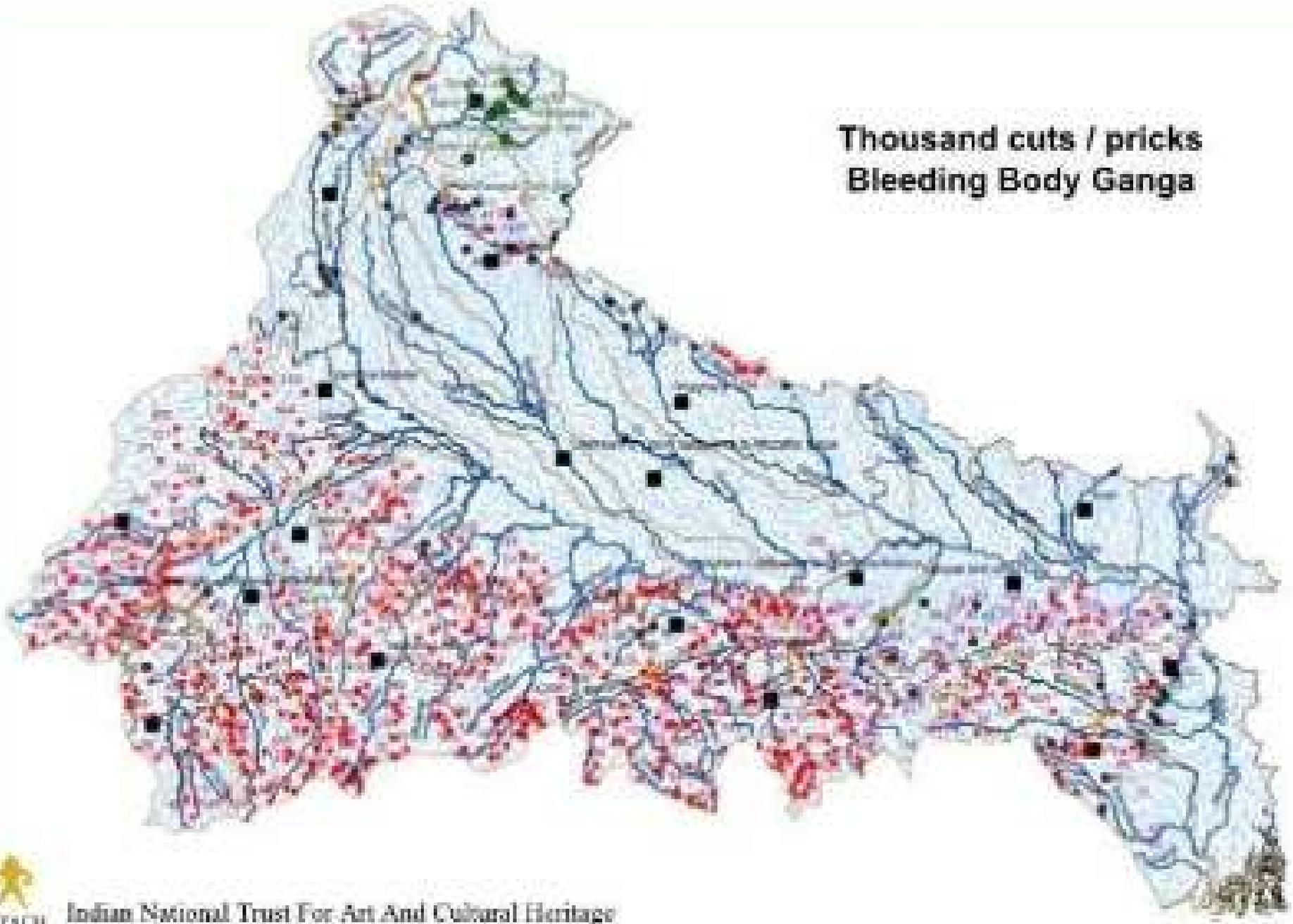




Figure 3 Twin Sources of Bhagirathi River at Gaumukh, May 2019

Ganga Basin Structure – Over All

Thousand cuts / pricks
Bleeding Body Ganga



Conclusion

- ❖ *Socio-Cultural Parameters Also Require Flow Thresholds To Be Maintained*
- ❖ *Will these 'soft' requirements find a place in the E-Flow Matrix*
- ❖ *A Factor Which Does Not Factor In Calculations And Hard Logic*
- ❖ *If E-flow For Eco-system Services Is Prose Then C-flow Is Poetry*

- *A Factor Which Does Not Factor In Calculations And Hard Logic*
- *If E-flow For Eco-system Services Is Prose Then C-flow Is Poetry*

Is This The Future Then ?

For Whom the Bell Tolls



Source : SANDRP

5 12:55PM



THANK YOU