



ARTESIAN WELL: GEOGRAPHY

NEWS: Water gushes out from underground in Rajasthan village: What is 'artesian condition', responsible for it?

WHAT'S IN THE NEWS?

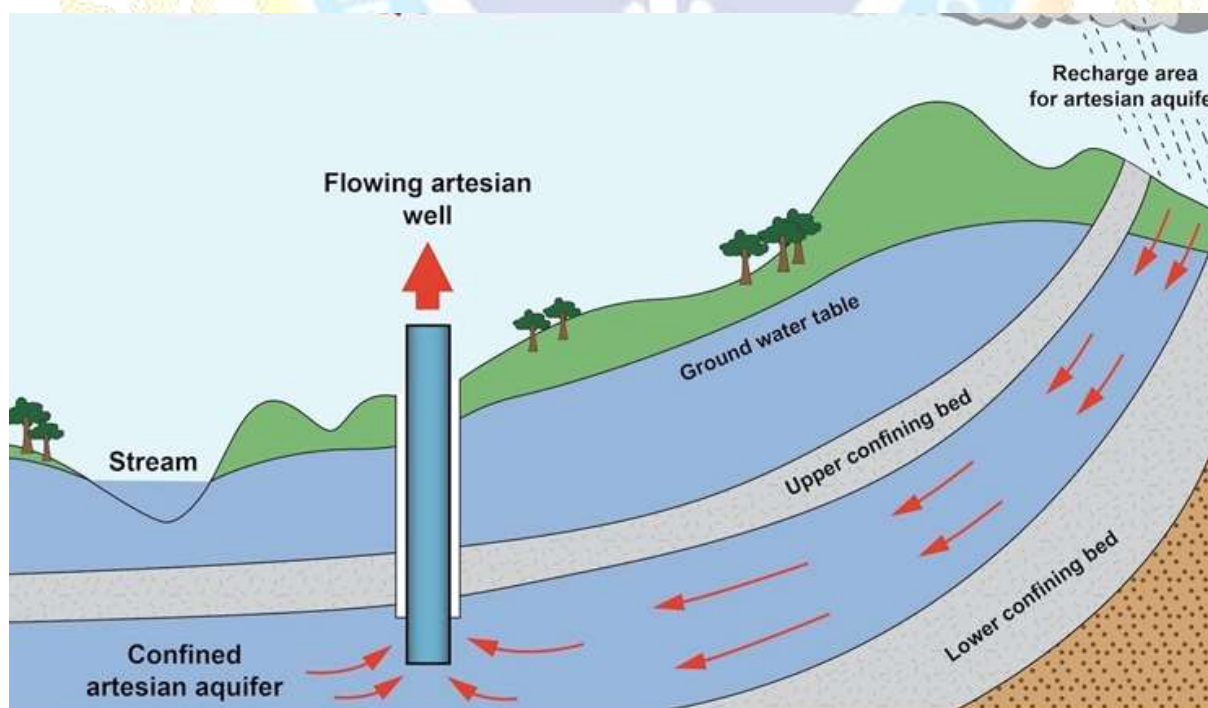
In Jaisalmer, Rajasthan, an artesian aquifer burst caused water and non-inflammable gas to gush out after a tube well was drilled, highlighting the region's unique geology. The phenomenon debunks myths about the Saraswati river and stresses the importance of groundwater management.

The Event

- **Date and Location:** December 27, 2023, in Taranagar village, Jaisalmer, Rajasthan.
- **Occurrence:**
 - Water gushed uncontrollably from underground after a tube well was drilled.
 - The high-pressure flow created a pit and inundated nearby land.
 - A small amount of non-inflammable gas accompanied the water.
- **Duration:** Flow ceased on its own on December 29.

Claims and Myths

- **Myth:** Linked to the ancient Saraswati river mentioned in the Rig Veda.
- **Reality:** Scientists attribute it to artesian conditions, unrelated to ancient rivers.





Scientific Explanation

- **Artesian Conditions:**
 - Water is stored under pressure between impermeable geological layers (e.g., sandstone).
 - Drilling punctures the layer, releasing water naturally due to pressure.
 - Named after Artois, France, where such phenomena were first observed.
- **Non-Inflammable Gas:** Its presence is common in artesian aquifers.

Why in Jaisalmer?

- **Geology:** Artesian aquifers lie beneath sandstone layers in desert regions like Jaisalmer.
- **Precedents:** Similar events recorded in Mohangarh, Nachana, and deserts of Australia and Africa.
- **Unprecedented Intensity:** The Taranagar event's magnitude was extraordinary.

Broader Significance

- **Groundwater Management:** Highlights the need for careful groundwater utilization in arid regions.
- **Scientific Inquiry:** Emphasizes debunking myths and understanding natural phenomena through geology.

Source: <https://indianexpress.com/article/explained/everyday-explainers/jaisalmer-water-reason-artesian-condition-saraswati-9763117/>