Usage of Iron in Tamil Nadu

Why in news?

Carbon dating of excavated finds in Tamil Nadu pushes evidence of iron being used in India back to 4,200 years ago.

What is the historical significance Iron?

- Iron is not known to have been used in the Indus Valley, from where the use of copper in India is said to have originated (1500 BCE).
- Iron technology led to the production of agricultural tools and weapons, leading to production required for a civilisation ahead of economic and cultural progress.
- Iron tools were used to clear dense forests and bring land under agriculture.

What are the findings of the excavation?

- The excavations are from Mayiladumparai near Krishnagiri in Tamil Nadu, about 100 km south of Bengaluru.
- Mayiladumparai is an important site with cultural material dating back between the Microlithic (30,000 BCE) and Early Historic (600 BCE) ages.
- The site is situated in the midst of several archaeological sites such as Togarapalli, Gangavaram, Sandur, Vedarthattakkal, Guttur, Gidlur, Sappamutlu and Kappalavadi.
- Prof Rajan had discovered the site in the 1990s, and the first excavations from there were made in the 1990s.
- The results of dating that used accelerator mass spectroscopy pushes evidence of iron being used in India back to 4,200 years ago.
- The Accelerator Mass Spectroscopy (AMS) dating by Beta Analytical Lab in Florida, US has established three important features
    - Iron appeared in Tamil Nadu as early as 220 BCE
    - The late Neolithic phase was identified before 2200 BCE as there is a cultural deposit of 25 cm below the dated level
    - Black-red-redware was in use the late Neolithic phase itself, in contrast to the wider belief that they were introduced in the Iron Age.
- Before this, the earliest evidence of iron use was from 1900-2000 BCE for the country, and from 1500 BCE for Tamil Nadu.
- The latest evidence dates the findings from Tamil Nadu to 2172 BCE.

> *The carbon dating of artefacts in Keeladi, a Sangam Era site near Madurai, and paddy husks found in a burial urn in Sivakalai in Thoothukudi district established their age to 2,600 and 3,200 years old.*

What is the timeline regarding the iron usage in India?

- In 1979, use of iron was traced to 1300 BCE at Ahar in Rajasthan.
- Later, samples at Bukkasagara in Karnataka, indicating iron production, were dated back to 1530 BCE.
- The date was pushed back to 1700-1800 BCE with excavations finding evidence of iron smelting at Raipura in the Mid-Ganga valley
- It was then pushed to 1900-2000 BCE based on investigations in sites at Malhar near Varanasi and Brahmagiri in North Karnataka.
- Before the latest discovery, the earliest evidence of iron use for Tamil Nadu was from Thelunganur and Mangadu near Mettur, dating back to 1500 BCE.

References

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