Chief minister Edappadi K Palaniswami - inaugurated Underground fossil museum at Varanavasi near Ariyalur

The museum highlights rock formations which prove that dinosaurs and other reptiles lived in the region millions of years ago.

It displays fossils, rocks and minerals from the pre-Cambrian, Jurassic and Cretaceous periods apart from the rocks of marine origins dating back several million years.

The state Archaeological department has set up the museum with a large repository of fossils in the region.

Ammonites from the Cretaceous period, which are found in plenty in Ariyalur, are also displayed in the Museum.

It has been constructed at a cost of Rs 2 crore at about 48.84 hectares area, which was set aside for exploring the fossil deposits.

The historical richness of Ariyalur’s antiquity is well known, after fossilised dinosaur eggs were found on the Cauvery riverbed in the region years ago.

In view of the large number of fossils found in Ariyalur, the government decided to set up the on-site museum at Keelapazhur to preserve and conserve fossils.

Former chief minister J Jayalalithaa had announced in 2012 about setting up such a museum while addressing a conference of collectors.
NATIONAL

◆ Aadi Mahotsav (National Tribal Festival) - kicks off on August 17, 2019, at Polo Ground, Leh-Ladakh

✓ The event will be inaugurated by Governor of Jammu and Kashmir, Satya Pal Malik
✓ It is a nine-day festival in which tribal artists participate and showcase their masterpieces
✓ About 160 Tribal artists from more than 20 states are participating in this festival
✓ Mahotsav will cover Food and Forest Produces, which can be processed, value-added and marketed under the Van Dhan Scheme of the Ministry of Tribal Affairs
✓ Local cultural troupes will be presenting Ladakhi folk dances during the event.
✓ Theme - A celebration of the spirit of Tribal Craft, Culture and Commerce
✓ In Ladakh, tribals make up 70% of population
✓ It is known for pashmina shawls and apricots
✓ Until 2018 Ladakh did not figure on list of places where Aadi Mahotsav is held every year
✓ It is a joint initiative of Union Ministry of Tribal Affairs and Tribal Cooperative Marketing Development Federation of India (TRIFED)
✓ The Government has constituted the Tribal Cooperative Marketing Development Federation of India (TRIFED) for achieving tribal upliftment goals.
✓ Over the next 10 days, a Van Dhan camp will also be organized in Ladakh
✓ Van Dhan scheme was launched in 2018
✓ Under it a group of 20 tribal artisans is trained and provided with working capital to add value to products
✓ The centre has set an ambitious target of setting up 600 Van Dhan by September 2019 and total 5,000 in the next 5 years

◆ Vice President of India M. Venkaiah Naidu - leaves for a 3-nation visit to Lithuania, Latvia and Estonia
This visit will be Vice President’s first ever high level visit (from India) to 3 Baltic countries.

The visit will provide an avenue for enhanced opportunities for bilateral cooperation as well as intensified trade and commercial ties.

In Latvia, the vice president will attend a business forum co-organised by Latvian Chamber of Commerce and Industry and ASSOCHAM (Associated Chambers of Commerce and Industry of India).

In Estonia, he will address Estonian Head of Mission’s conference on India’s role in Indo-Pacific region and address an India-Estonia business forum led by Confederation of Indian Industry (CII) from Indian side.

**SCIENCE, TECHNOLOGY & ENVIRONMENT**

**Indian Space Research Organization (Isro) - invites Indian companies to build five Polar Satellite Launch Vehicles (PSLVs)**

- The move is seen as a major push for Prime Minister Narendra Modi’s Make in India initiative.

- The cost of one fully integrated PSLV launch vehicle amounts to about ₹200 crore.

- The space agency’s new commercial arm — New Space India Limited (NSLI) — will be responsible for handling the process of technology transfer to the industry.

- NSLI was formed in March this year to promote Indian space commerce.

- NSLI has mandated that only a consortium can participate in the EoI, and is expecting submissions by September 6.

- PSLVs are the Indian rockets that can lift light payloads to ‘low earth orbits’ in about 600 km in space.

- ISRO also has two increasingly more powerful launchers in that order — the GSLV and the GSLV-Mk III, used to lift 2,000 kg and 4,000 kg communication satellites to higher orbits.
In January, Isro Chairman, K Sivan had said HAL and L&T have already signed an agreement and production will soon begin.

Of the over ₹6,000 crore sanctioned last year for the cost of 30 PSLVs required during 2019-24, 85% of the money would go to industries.

HAL, which has been Isro’s partner in making the PSLV and GSLV structures or contributing to the CE-20 cryogenic engine — is hoping to lead a consortium to build PSLV since last year.

In fact, as on date, HAL has orders for 24 sets of PSLV structures and two sets of GSLV.

L&T too has been associated with Isro since 1975 and has been involved in building PSLV over the years.

For example, motor casings used in S139 solid rocket boosters that the PSLV uses were made by L&T.

ISRO currently sources separate rocket parts from around 500 big and small vendors and from its facilities in Kerala, Tamil Nadu and Andhra Pradesh.

AWARDS

The Army - has won the 5th International Army Scout Masters Competition held at the Jaisalmer Military Station in Rajasthan from August 6 to 14.

Eight teams from Armenia, Belarus, China, Kazakhstan, Russia, Sudan and Uzbekistan participated in the competition.

India participated in the games for the first time.

The International army games are organised by Russia.

SPORTS

Ravi Shastri, head coach of the men’s senior national team - has been reappointed by the Indian cricket board.
He will be in charge for an extended two-year term that will conclude in November 2021 with T20 World Cup, to be hosted by India.

Shastri was appointed as head coach of the Indian cricket team on July 11, 2017 on a two-year contract till ICC World Cup 2019.

He is currently on a 45-day contract extension with the touring Indian team in West Indies.

### SHASTRI AS HEAD COACH (SINCE JULY 1, 2017)

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<th>Lost</th>
<th>NR/Drawn</th>
<th>Tied</th>
<th>Winning %</th>
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### RAVI SHASTRI AS TEAM DIRECTOR (AUG 2014 TO MARCH 2016)

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<th>Lost</th>
<th>Drawn/NR</th>
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<td>5</td>
<td>4</td>
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<td>ODIs</td>
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<td>24</td>
<td>15</td>
<td>1</td>
<td>61.54</td>
</tr>
<tr>
<td>T20s</td>
<td>21</td>
<td>14</td>
<td>7</td>
<td>0</td>
<td>66.67</td>
</tr>
</tbody>
</table>

- The Kapil Dev-led Cricket Advisory Committee, which also included former cricketers Anshuman Gaekwad and Shantha Rangaswamy, chose Shastri over others who were interviewed.
- The other interviewed cricketers include Australia’s Tom Moody, New Zealand’s Mike Hesson and Mumbai-based Lalchand Rajput and Robin Singh.
- West Indies’ Phil Simmons opted out from the original list of six.
- The parameters on the basis of which these candidates were evaluated were (a) coaching philosophy, (b) experience of coaching, (c) achievements in coaching, (d) communication and (e) knowledge of modern coaching tools.
- Shastri, Hesson and Moody turned out to be the three final candidates, chosen in that particular order, based on skill-specific rating marks out of 100.
- The New Zealander, Mike Hesson, guided his national team to the 2015 World Cup final, losing to Australia in the title clash.
- Moody from Australia coached Sri Lanka in World Cup and has been an applicant for India head coach post from 2005.
- Kapil Dev and Shastri played together in the 1983 Prudential World Cup held in England which India won.

### Tenure of Ravi Shastri - Highlights

- India reached the semis of the World Cup in 2015 and 2019 and the semis of World T20 in 2016.
- India have been ranked number one in both Tests and ODIs.
- Team won its first Test series in Australia in 2018-19 season.
- Won the 2018 Asia Cup in UAE.
- India played 12 Test series, won 7, lost 4 and drawn 1.
Star sprinter Dutee Chand - clinched the 100 metre gold at the Indian Grand Prix V at the Netaji Subhas National Institute of Sports in Patiala.

- Tamil Nadu’s Archana Suseentran settled with the silver while Punjab sprinter Manvir Kaur settled for the bronze.
- In women’s Discus Throw, local girl Navjeet Kaur Dhillon shot a throw of 52.44 metres to take the gold medal while Bengal’s Suravi Biswas picked the silver with a throw of 51.42m.

Wrestler Bajrang Punia (Haryana) - was recommended for this year’s Rajiv Gandhi Khel Ratna award, the country’s highest honour in sports.

- The reigning Asian and Commonwealth gold medallist’s name was recommended by a 12-member selection committee to the Sports Ministry.
- The selection committee was headed by Justice (retd.) Mukundakam Sharma and including the likes of Bhaichung Bhutia and M.C. Mary Kom.
- Bajrang will aim to book a Tokyo Olympic Games berth at the upcoming World Championships to be held in Nur-Sultan, Kazakhstan from September 14 to 22.
- Bajrang is the World No. 1 wrestler in the 65kg category.
- He had also won a World Championships silver last year apart from a bronze in the 60kg in 2013.
INDIA’S POPULATION – A REPORT

On August 15, Narendra Modi became the first PM in a long time to bring up the issue of India's population explosion. He extolled the virtues of small families and urged the Centre and states to come up with measures to tackle the “uncontrolled growth”. And indeed, in another seven-odd years, India is expected to overtake China to become the world’s most populous country. But UN projections show India’s population growth has almost stabilised, and in the not-too-distant future the country’s population will start declining.

India’s Fertility Rate Has Dropped To 2.2

Globally, a fertility rate of 2.1 is considered the replacement rate. Meaning an average of 2.1 babies per woman will keep the present numbers intact.

Our Population Will Peak In 2060

In the mid-2020s, India’s population is expected to peak at 1.65 billion in 2060 and begin dipping after that according to UN projections, though some demographers expect the decline to begin decades earlier. Africa, however, will continue growing through the century, hitting 3 billion in the 2060s.
In Just 2 Years, Only Bihar Will Have A Fertility Rate Above Replacement Level

- According to the 2011 census, there were 11 states with fertility rates higher than 2.1. Projections by the International Institute for Population Sciences (IIPS) show that by 2031 all major states, including Bihar, will have below-replacement fertility rate.
- The most recent Economic Survey cited demographic projections that show India’s population growth will continue to slow rapidly over the next two decades, growing less than 1% annually during 2021-31 and under 0.5% during 2031-41.
- For most states, fertility rate is projected to fall below replacement level by 2021, and hence population will grow only because of continued rise in life expectancy.

TOTAL FERTILITY RATE BY STATE (PROJECTED)

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<thead>
<tr>
<th>State</th>
<th>2021</th>
<th>2031</th>
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<tbody>
<tr>
<td>India</td>
<td>1.8</td>
<td>1.7</td>
</tr>
<tr>
<td>Bihar</td>
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<td>2.5</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>2.0</td>
<td>1.8</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>2.0</td>
<td>1.8</td>
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<tr>
<td>Gujarat</td>
<td>1.9</td>
<td>1.8</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>1.9</td>
<td>1.8</td>
</tr>
<tr>
<td>Assam</td>
<td>1.8</td>
<td>1.8</td>
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<tr>
<td>Chhattisgarh</td>
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<td>1.8</td>
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<tr>
<td>Haryana</td>
<td>1.8</td>
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<tr>
<td>Jharkhand</td>
<td>1.8</td>
<td>1.8</td>
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<tr>
<td>Kerala</td>
<td>1.8</td>
<td>1.8</td>
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<tr>
<td>Odisha</td>
<td>1.8</td>
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<tr>
<td>Himachal Pradesh</td>
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<tr>
<td>Punjab</td>
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<tr>
<td>Telangana</td>
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<tr>
<td>Uttarakhand</td>
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<td>Delhi</td>
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<td>Jammu &amp; Kashmir</td>
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<td>1.5</td>
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<tr>
<td>Tamil Nadu</td>
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<tr>
<td>West Bengal</td>
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</table>

All Religions Saw Fertility Rates Drop, Sharpest Fall Among Muslims

<table>
<thead>
<tr>
<th>RELIGION</th>
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<th>2015-16</th>
<th>Change %</th>
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<tbody>
<tr>
<td>Hindu</td>
<td>2.59</td>
<td>2.13</td>
<td>-17.8%</td>
</tr>
<tr>
<td>Muslim</td>
<td>3.40</td>
<td>2.62</td>
<td>-22.9%</td>
</tr>
<tr>
<td>Christian</td>
<td>2.34</td>
<td>1.99</td>
<td>-15.0%</td>
</tr>
<tr>
<td>Sikh</td>
<td>1.95</td>
<td>1.58</td>
<td>-19.0%</td>
</tr>
<tr>
<td>Buddhist*</td>
<td>2.25</td>
<td>1.74</td>
<td>-22.7%</td>
</tr>
<tr>
<td>Jain</td>
<td>1.54</td>
<td>1.2</td>
<td>-22.1%</td>
</tr>
</tbody>
</table>

* Including Neo-Buddhist

Fertility rate is largely driven by affluence and education. Higher the education level, lower the fertility rate. This is borne out by the prosperous Jain community, which has India’s lowest fertility rate.

Lower Sex Ratio Might Mean Higher Replacement Rate

The 2.1 replacement rate is based on the assumption that the number of male and female babies born is equal. But in India, the sex ratio fell to an all-time low of 836 in 2015-2017. This means there are far fewer female babies being born who can grow up and reproduce.

As of 2014-16, national sex ratio at birth remains lower than the global norm of 929 to 980 (girls per 1,000 boys). Thus, there are more men than women in the population when compared to the global average.

This implies that the required replacement level fertility at the national and state level is higher than the usual benchmark of 2.1. Due to the skewed sex ratio, there would have to be more than 2.1 babies per woman for the population to replace itself from one generation to the next.

Nationally, IIPS estimates effective replacement level fertility at around 2.15-2.2. For states like Haryana, Uttarakhand and Gujarat it’s 2.2-2.25. For other states, it’s 2.1-2.2.

Source: National Family Health Survey, UN Population Division, Economic Survey, Census