



# 26-09-2023 NEWS

## Rock and soil samples from asteroid Benu brought to Earth

### NASA's feat

- OSIRIS-REx Space mission

### Collection of samples

- Asteroid Benu - It is 200 million kilometers from Earth
- Success in collecting rock and soil samples by NASA OSIRIS-REx

### Asteroids in the Solar System

### Planets

- Mercury, Venus, Earth, Mars

### Asteroids

- It revolves around the Sun in an elliptical path
- According to the study so far, 1.31 lakh asteroids
- Diameter - 1 m to 1000 m

### Benu

- Danger of Asteroid Hitting Earth, Scientists warn
- Benu - Could hit Earth in 300 years

### Origin

- 450 million years ago
- Before of the origin of the Earth

### Need to study Benu

- Origin of the solar system
- Origin of Planets
- Origin of living things and water

### OSIRIS-REx

- Launched on September 8, 2016 towards Benu
- Reached Benu on December 3, 2018
- Collected samples on Oct 20, 2020 - Sand and Rocks
- Journey towards Earth - started on May 10, 2021
- Container - 44,500 km speed
- In the 13th minute after entering the Earth's atmosphere, it fell in the desert of the state of Utah, USA

### Important note

- 1999 - found by linear analysis
- Name given by scientists - 1999 RQ36
- 9 year student - Benu

## Chip manufacturing

### Chip factory in India

- Development in new technology - Artificial Intelligence, 5G and Internet of Things
- India - Strong intellectual hub and growing demand
- India - 20% of semiconductor design engineers worldwide

### Govt initiative

- 2021 Design Linked Incentive Scheme
- Providing incentives to domestic design firms
- Goal - Innovation should be domestically focused
- 20 companies should be created which can earn more than 1500 crore rupees
- Domestic chip manufacturing companies to operate with equal share
- Ensuring a sustainable ecosystem by promoting sustainable enterprises
- The semiconductor industry is capital intensive
- A long-term strategic policy is essential
- The Government's efforts are ineffective and inefficient
- Equity infusion - Local, small and medium enterprises will be encouraged

### Challenges

- Fewer venture capitalists
- Low annual income
- High cost of design
- High volume production period

## **India Brazil South Africa Forum**

### **IBSA**

- A confederation of three major democracies and three major economies from three different continents
- Negotiating method - Facilitating communication
- Consequence - South-South Confederation

### **Goal**

- Increasing trade opportunities between the three countries
- Information, technology and skills transfer

### **Formation**

- June 06, 2003 - Meeting of Foreign Ministers held in Brasilia, Brazil
- The forum does not have a permanent secretariat

### **IBSA Forum**

- Discuss and work together on global and regional political issues
- Building partnerships and people-to-people collaboration through functional grouping in sustainable areas
- Funding in this forum is in aid of projects in developing countries

### **Components**

- IBSA Trust fund
- Formed in 2004
- India, Brazil, South Africa

### **Implementation in 2006**

- Goal - Alleviating poverty and hunger in developing countries
- Supporting development projects of the South, Southern Federation
- 44 million USD allocation
- Supports 39 development projects of 34 member countries

### **IBSA MAR**

- Multinational Naval Training
- Goal - Building a strong alliance in naval defense
- 7th Edition - Port Elizabeth, South Africa - Oct 10-12, 2022

### **IBSA Cooperative Scheme**

- Goal - Encouraging exchange of young researchers in economic and social science fields
- Effect - Strengthening research collaborations between IBSA in the South

## **The Women's Reservation Bill was passed**

### **33% reservation**

- Nari Shakti Vandan Adhiniyam
- Success in 5<sup>th</sup> attempt
- 1996 - Deve Gowda govt
  - Introduced in Lok Sabha
  - Dissolution of 11<sup>th</sup> lok sabha. The bill has lapsed
- 81st Amendment Bill
- 1998 Dec 14 - Vajpayee govt
  - Introduced in Lok Sabha
  - Dissolution of 12<sup>th</sup> lok sabha. The bill has lapsed
- 84<sup>th</sup> Amendment Bill
- 1999 Dec 23 - Vajpayee govt
  - Introduced in Lok Sabha
  - The bill was not carried forward due to lack of consensus
- 85<sup>th</sup> Amendment Bill
- 2008 - Man Mohan Singh Govt
  - Introduced in Rajya Sabha
  - Passed in 2010
- 108<sup>th</sup> Amendment Bill
- Dissolution of Lok Sabha & not passed. The bill has lapsed

### **Data**

- Present Member of Lok Sabha
  - Total - 542
  - Women - 81 (14.39%)
  - The national average of women legislators is 9%.