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TODAY'S ANALYSIS

(12 November 2024)

TOPICS TO BE COVERED

- ONE SUN ONE WORLD ONE GRID
- QS WORLD UNIVERSITY RANKINGS: INDIA SHINES
- ELEPHANT PROTECTION IN SHETTIHALLI WILDLIFE SANCTUARY
- MCQs

ONE SUN ONE WORLD ONE GRID



- In November, 2024, India is actively engaged in discussions with several nations, including Oman, UAE, Saudi Arabia, Maldives, and Singapore, to establish cross-border electricity transmission lines as part of the ambitious One Sun One World One Grid (OSOWOG) initiative.
- This project was 1st proposed by Prime Minister Narendra Modi in 2018 during the inaugural Assembly of the International Solar Alliance (ISA).

ABOUT OSOWOG

- Launch: OSOWOG was proposed by Indian Prime Minister Narendra Modi at the 2018
 ISA Assembly. It envisions a global interconnected solar grid that shares solar energy across countries, ensuring continuous access to clean energy.
- Collaboration: In COP26 (2021), the Green Grids Initiative (GGI), launched by the UK, merged with OSOWOG into GGI-OSOWOG to promote renewable energy and ensure net-zero emissions by 2030.

Implementation Phases

- Phase 1: Connect India's grid to neighboring regions in South Asia, Middle East, and Southeast Asia.
- ☐ Phase 2: Expand the grid to Africa for broader energy sharing.
- □ Phase 3: Achieve a global interconnected grid by 2050, integrating 2,600 GW of renewable energy.

CORE OBJECTIVES

 Global Solar Grid: Link solar power grids across continents to share energy globally, ensuring that wherever the sun is shining, energy is available.



- Maximize Renewable Energy: Shift energy production from fossil fuels to cleaner sources, balancing global energy needs with solar power.
- International Cooperation: promote collaboration to ensure equitable, sustainable energy access for all countries.

INDIA'S ROLE

- Leadership: India leads the OSOWOG initiative through ISA, aiming for 500 GW of non-fossil fuel electricity by 2030 and Net Zero by 2070.
- Energy Growth: India is the 4th largest renewable energy producer globally, with solar power playing a central role.
- Grid Interconnections: India has established connections with Nepal, Bangladesh, and
 Myanmar, and is negotiating with other nations like Sri Lanka, UAE, and Saudi Arabia.

INDIA'S STRATEGIC SHIFT:

- Energy Demand: India will account for 25% of global energy demand growth by 2040,
 making solar power crucial for energy security.
- Air Pollution: Solar energy helps reduce pollution caused by fossil fuels.

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 Water Crisis: Solar power is water-efficient, unlike coal-based energy that depletes water resources.

CHALLENGES

- Infrastructure: The need for large-scale grid development, energy storage systems,
 and battery technologies.
- Investment: OSOWOG requires \$1 trillion in funding by 2030 for developing countries.
- Geopolitical Coordination: Successful implementation requires global cooperation, trade agreements, and regulatory harmonization.

KEY FACTS & FEATURES OF OSOWOG

- Purpose of OSOWOG:
 - The OSOWOG initiative aims to create a global interconnected grid that allows countries to transfer renewable energy, particularly solar power, across borders.
 - This grid will help countries to use renewable resources more efficiently, reduce
 reliance on fossil fuels, and optimize energy distribution across regions.
- India-Oman Power Link:
 - One of the 1st projects under OSOWOG is the interconnection of India's power grid with Oman's grid.

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- o This link will help to enhance renewable energy flow between the two countries.
- A key aspect of this initiative is the creation of a shared network that enables the efficient transfer of renewable energy across regions.
- Surplus solar or wind energy in one area can be transferred to another region
 experiencing an energy deficit.
- Renewable Energy Integration:
 - The initiative aims to integrate solar, wind, and hydro power from different regions,
 which will help to balance supply and demand peaks and improve grid stability.
 - o By connecting renewable energy sources across borders, countries can better manage their electricity needs, especially during peak times, and reduce their reliance on fossil fuels.
- Current and Future Electricity Exchanges:
 - India currently exchanges about 4,100 MW of electricity with neighboring countries,
 including Nepal, Bangladesh, Bhutan, and Myanmar.
 - This capacity is expected to increase to 7,000 MW by 2026-27 as new interconnections are developed, including the Oman link.





• Maximizing Solar Energy with Time-Zone Diversity:

- The idea behind OSOWOG is to leverage time-zone diversity—since the sun is always shining somewhere on Earth, different regions can generate solar power at different times of the day.
- This allows for continuous generation of solar energy, making the system more reliable and reducing the need for large-scale storage solutions.

Proposed Projects under OSOWOG:

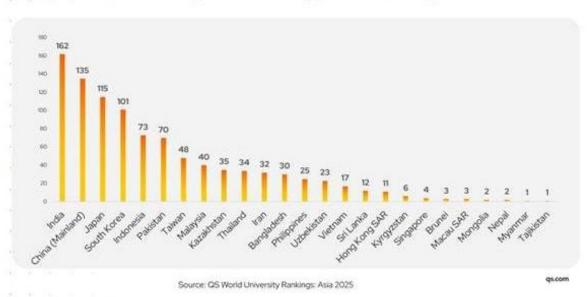
- o In addition to the India-Oman link, other planned interconnections include discussions with the UAE, Saudi Arabia, and Singapore.
- A 1,000-km undersea power cable connecting Gujarat in India with Oman is also being explored.
- o This would create a secure energy exchange route between the two countries.

QS WORLD UNIVERSITY RANKINGS:

INDIA SHINES

- In November 2024, India has once again shown its strength in higher education with impressive results in the QS World University Rankings: Asia 2025.
- The latest rankings highlight the growing competition among universities in Asia and reflect India's increasing influence in the global education landscape.
- This year's rankings shows India's commitment to academic excellence, research, and international collaboration.

Institutions by country/territory



KEY HIGHLIGHTS

India's Top Performers:

- India has 7 institutions in the top 100 of the QS Asia Rankings 2025, a testament to the country's growing prominence in higher education.
- 2 Indian institutions are ranked in the top 50, with Indian Institute of Technology
 Delhi (IITD) leading the pack at 44th place.
- Improvement of Indian Universities:
 - The University of Petroleum and Energy Studies (UPES) saw the largest improvement among Indian universities, jumping 70 spots to 148th.
 - This boost was driven by improvements in key metrics like International Research
 Network, Citations per Paper, and Papers per Faculty.

Top 50 Universities:

- IIT Delhi (44th) and IIT Bombay (48th) are India's two institutions in the top 50.
- IIT Delhi's rise from 46th last year reflects an impressive employer reputation score
 of 99%, one of the highest in Asia.
- o IIT Bombay ranked 48th with strong scores in employer reputation (99.5%) and academic reputation (96.6%).
 ADDRESS:

• Top 100 Universities:

- India has 5 institutions in the top 100:
 - IIT Madras (56th)
 - IIT Kharagpur (60th)
 - Indian Institute of Science (IISc) (62nd)
 - **IIT Kanpur** (67th)
 - University of Delhi (81st), which improved from 94th last year.
- The University of Delhi showed notable improvement, achieving a high score of 96.4% in the International Research Network.

• Top 150 Universities:

India's higher education strength extends beyond the top 100, with institutions such as IIT Guwahati, IIT Roorkee, Jawaharlal Nehru University, Chandigarh University (120th), UPES (148th), and Vellore Institute of Technology (150th), reflecting the depth of quality education in India.

• Impressive Research Output:

Anna University achieved a perfect score of 100 in the Papers Per Faculty indicator,
 emphasizing its high research output and strong academic performance.
 ADDRESS:

• High-Caliber Faculty:

India's commitment to top-tier teaching is evident as 15 universities scored above 99% in the staff with PhD indicator, showing that India's institutions have highly qualified faculty.

Top Faculty-Student Ratio:

o North Eastern Hill University and University of Agricultural Sciences, Bangalore achieved a perfect score of 100 in the faculty-student ratio, demonstrating strong academic credibility and effective teaching practices.

INDIA'S GROWTH IN GLOBAL EDUCATION

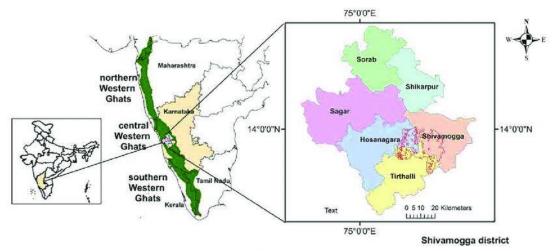
- Over the last **decade**, India has made significant progress in the QS World University Rankings.
- In 2025, India has 46 institutions in the rankings, compared to just 11 in 2015, showing a
 318% increase in the number of Indian universities listed.
- This growth places India among the top contenders in higher education, particularly within Southern Asia.
- India's 2 institutions in the top 50 and 7 in the top 100 highlight the country's commitment to building world-class universities and enhancing its global competitiveness in education.

ELEPHANT PROTECTION IN SHETTIHALLI

WILDLIFE SANCTUARY

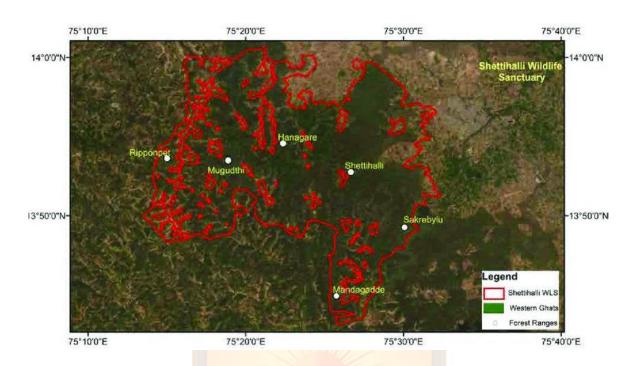
- On November 9, 2024, Environmental activists raised serious concerns over the growing threat to elephants in the Shettihalli Wildlife Sanctuary in Karnataka, following the death of a young male elephant.
- The elephant died from electrocution after it wandered into a cornfield in Veera
 Guarana Bairanakoppa on November 5, coming into contact with a live wire.
- The field, owned by a local villager, led to the booking of the landowner under the Wildlife Protection Act.

LOCATION OF SHETTIHALLI WILDLIFE SANCTUARY



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IS IT THE FIRST SUCH INCIDENT?

- This tragic incident is not the first of its kind.
- Just 2 years ago, **two male elephants** met the same accident in the same area.
- The repeated occurrence of such elephant deaths, combined with alleged lapses in the investigations, has raised concerns about the effectiveness of wildlife conservation efforts in the region.

DEMANDS BY ACTIVISTS

- A comprehensive survey of the sanctuary's range.
- Identification of encroached areas within the sanctuary.
 ADDRESS:



- Transfer of a veterinarian from the forest department, citing concerns over current management.
- A thorough investigation into irregularities within the wildlife division.
- Restructuring of the elephant camp for better care and management.
- Proper utilization of vehicles for patrolling and monitoring the sanctuary.
- Finalization of the **buffer zone** to protect wildlife from human encroachment.
- Accountability for farmers who are electrifying their fields, posing a deadly risk to wildlife.

ABOUT SHETTIHALLI WILDLIFE SANCTUARY & THREATS IT FACES

- The Shettihalli Wildlife Sanctuary, established in 1974, is one of Karnataka's largest and most biodiverse sanctuaries.
- It is home to a variety of wildlife, including elephants, leopards, and sloth bears.
- However, the sanctuary faces significant challenges from human-wildlife conflict, particularly from electrocution deaths of elephants, which endanger the survival of these species.



- The sanctuary's wildlife is also at risk due to **encroachments**, **where human activities increasingly threaten the natural habitats** of the animals.
- Environmentalists argue that the repeated incidents, lack of proper investigation, and inadequate protective measures are putting the survival of elephants and other wildlife at significant risk.





MCQs

- 1. Consider the following statements and mark the correct one:
 - One Sun One World One Grid was announced by the Indian PM IN CoP 24 of UNFCCC in 2018.
 - 2. It aims to achieve a global interconnected grid by 2050.
 - (A) Only 1
 - (B) Only 2
 - (C) Both 1 & 2
 - (D) Neither 1 nor 2

Ans. (B)

- 2. With which country, India has established grid connections?
 - (A) Sri Lanka
 - (B) Saudi Arabia
 - (C) Nepal
 - (D) Maldives

Ans. (C)



- 3. Consider the following statements and mark the correct ones:
 - 1. India is the fourth largest producer of renewable energy.
 - 2. India aims to be net zero by 2050.
 - (A) Only 1
 - (B) Only 2
 - (C) Both 1 & 2
 - (D) Neither 1 nor 2

Ans. (A)



- 4. According to the QS World rankings, 2024, which college is the best ranking in India?
 - (A) IIT Bombay
 - (B) IIT Guwahati
 - (C) IISc, Bangalore
 - (D) IIT Delhi

Ans. (D)



- 5. Consider the following statements and mark the correct one:
 - 1. The Shettihalli Wildlife Sanctuary is located in the southern Western Ghats.
 - 2. It was established in 1974.
 - 3. It is Karnataka's largest wildlife sanctuary
 - (A) Only 1 & 3
 - (B) Only 1 & 2
 - (C) Only 2 & 3
 - (D) Only 2

Ans. (C)

