India Joins UN Panel on Big Data

Why in News?

India has become a member of the **United Nations (UN) Committee of Experts on Big Data and Data Science for Official Statistics (UN-CEBD)** after its recent induction into the **United Nations Statistical Council (UNSC)**, signaling its growing influence in **global statistical frameworks.**

What is the United Nations Committee of Experts on Big Data and Data Science for Official Statistics (UN-CEBD)?

- **About:**
    - **UN-CEBD** is a specialized body under the **United Nations**, established to **leverage Big Data and data science** for strengthening global statistical systems.
    - It was established in 2014, under the aegis of the **United Nations Statistical Commission (UNSC).**
- **Members:**
    - It has **31 member states (including India)** and 16 international organizations.
- **Objectives:**
    - **Explore the role of big data** in monitoring and reporting progress on **Sustainable Development Goals (SDGs)**.
    - **Address challenges associated** with utilizing non-traditional data sources for official statistics.
- **Governance:**
    - **Advisory Board**: Serves as the **principal management body** of the UN-CEBD and **convenes around 4 times a year** to review the committee's work and provide strategic guidance.
    - **UN Bureau**: It oversees the **day-to-day operations and administrative functions**.
- **Key Functions:**
    - **Strategic Coordination:** Provides **vision, direction, and coordination** for a global program on utilizing big data in official statistics, including for **tracking indicator**s of the **2030 Agenda for Sustainable Development**.
    - **Promotion of Big Data Use:** Encourages **practical applications of big data**, including cross-border data, while **addressing associated challenges and leveraging** existing frameworks.
        - Encourage **innovative utilization** of non-conventional data sources, including **satellite imagery, IoT,** and private-sector data.
    - **Capacity Building**: Focuses on **enhancing capabilities through training, experience-sharing, and building technical expertise** and offering technical **assistance to member nations** for modernizing their statistical systems.
    - **Building Public Trust**: Works towards establishing public confidence in the use of big data for official statistical purposes.

What is Big Data?

- **About:**
  - **Big data** refers to **large, complex datasets** that traditional data management systems cannot efficiently store, process, or analyze.
  - It enables **improved processes, better decision-making**, and **enhanced product/service development.**
- **India's Big Data Initiatives:**
  - **National Data & Analytics Platform (NDAP)**
  - **Big Data Management Policy**
  - **National Data Warehouse on Official Statistics**
- **Drivers:** There are **6Vs** that drive big data are:

Value	Clinically relevant data / Longitudinal studies
Volume	High-throughput technologies / Continuous monitoring of vital signs
Velocity	High-speed processing for fast clinical decision support / Increasing data generation rate by the health infrastructure
Variety	Heterogeneous and unstructured data sources / Differences in frequencies and taxonomies
Veracity	Data quality is unreliable / Data coming from uncontrolled environments
Variability	Seasonal health effects and disease evolution / Non-deterministic models of illness and health

- **Applications:**

Big Data Application examples in different Industries:

Retail/Consumer
- Merchandizing and market basket analysis
- Campaign management and customer loyalty programs
- Supply–chain management and analytics
- Event– and behavior–based targeting
- Market and consumer segmentations

Finances & Frauds Services
- Compliance and regulatory reporting
- Risk analysis and management
- Fraud detection and security analytics
- Credit risk, scoring and analysis
- High speed arbitrage trading
- Trade surveillance
- Abnormal trading pattern analysis

Web and Digital media
- Large–scale clickstream analytics
- Ad targeting, analysis, forecasting and optimization
- Abuse and click–fraud prevention
- Social graph analysis and profile segmentation
- Campaign management and loyalty programs

Health & Life Sciences
- Clinical trials data analysis
- Disease pattern analysis
- Campaign and sales program optimization
- Patient care quality and program analysis
- Medical device and pharmacy supply–chain management
- Drug discovery and development analysis

Telecommunications
- Revenue assurance and price optimization
- Customer churn prevention
- Campaign management and customer loyalty
- Call detail record (CDR) analysis
- Network performance and optimization
- Mobile user location analysis

Ecommerce & customer service
- Cross–channel analytics
- Event analytics
- Recommendation engines using predictive analytics
- Right offer at the right time
- Next best offer or next best action

United Nations Statistical Commission (UNSC)

- UNSC is the highest decision-making body for **international statistical activities**.
- It was established in **1946** and is a functional commission of the **UN Economic and Social Council (ECOSOC).**

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