SHORT NEWS:

1. FIRST PIG LIVER TRANSPLANT IN HUMAN

NEWS: In a medical breakthrough achieved by Chinese Doctors, **a pig's Liver has been transplanted into a Human being.**

More Details about the Transplant Operation

- The liver was **transplanted into a brain-dead adult person** at the Fourth Military Medical University in the Chinese city of Xi'an

- **Published In:** The study, **"Gene-modified pig-to-human liver xenotransplantation"** was **published in the journal Nature.**

- The liver was **sourced from a miniature pig, which had six edited genes.**

HOW SCIENTISTS IN CHINA CARRIED OUT THE WORLD'S FIRST PIG-TO-HUMAN LIVER TRANSPLANT

1. Genetically modified 7-month-old Bama miniature pig selected as donor

2. Liver is removed from the pig and kept 'alive' using a medical solution

3. Donor liver is stitched to man's blood vessels and recipient's abdomen is stitched up

4. The liver successfully produced bile and maintained stable blood flow

5. Experiment terminated after 10 days due to requests from family

10 DAYS

Significance:

- **Bridge Organ:** The transplant can help **serve as a 'bridge organ' to support people** who are waiting for a human donor.

  - The pig liver **did not completely replace the patient's original liver.**

- **Future potential** of xenotransplantation as a **bridge graft or permanent placement will be studied more** comprehensively.

About Xenotransplantation

- Xenotransplantation (cross-species transplantation) **is the process of transplanting living cells, tissues, or organs from one species to another,** primarily from animals to humans

- **Purpose:** The primary driver for xenotransplantation is **to address the shortage of human organ**s available for transplantation and save lives.

- **Examples:**

    - **Pig-to-Human Kidney Transplants:** A **successful transplantation** has been performed by Massachusetts General Hospital and New York University

    - **Pig-to-Human Heart Transplants**: Research teams at the University of Maryland School of Medicine have performed pig-to-human heart transplantation.

2.GREEN GRABBING

NEWS: The **Asia Development Bank (ADB)-funded Assam Solar Park** faces opposition from local communities for allegedly engaging in 'green grabbing' of indigenous land.

About Green Grabbing

- **Definition**: Green grabbing occurs when land is repurposed for environmental projects like carbon offsetting, biodiversity reserves, afforestation, or clean energy.

    - The term **Green Grabbing** was first used by the **Guardian journalist John Vidal** to refer to the **appropriation of land and resources for environmental ends**

- **Impact:** It displaces communities, threatens livelihoods, undermines food security, and erodes local knowledge that sustains agrobiodiversity.

- **Tactics:** Land is **often acquired coercively** under the pretext of environmental conservation or sustainable development.

Case of Assam's Karbi Anglong

- **Scarcity of Fertile Land:** The hilly terrain **limits arable land,** making **fertile areas crucial for indigenous communities.**

- **Government Initiative:** Assam's plan to establish solar parks has led to **land acquisition, reducing agricultural space.**

- **Effect on Indigenous Communities**: The **Karbi and Naga people** face **displacement, loss of livelihood, and threats to their traditional way of life.**
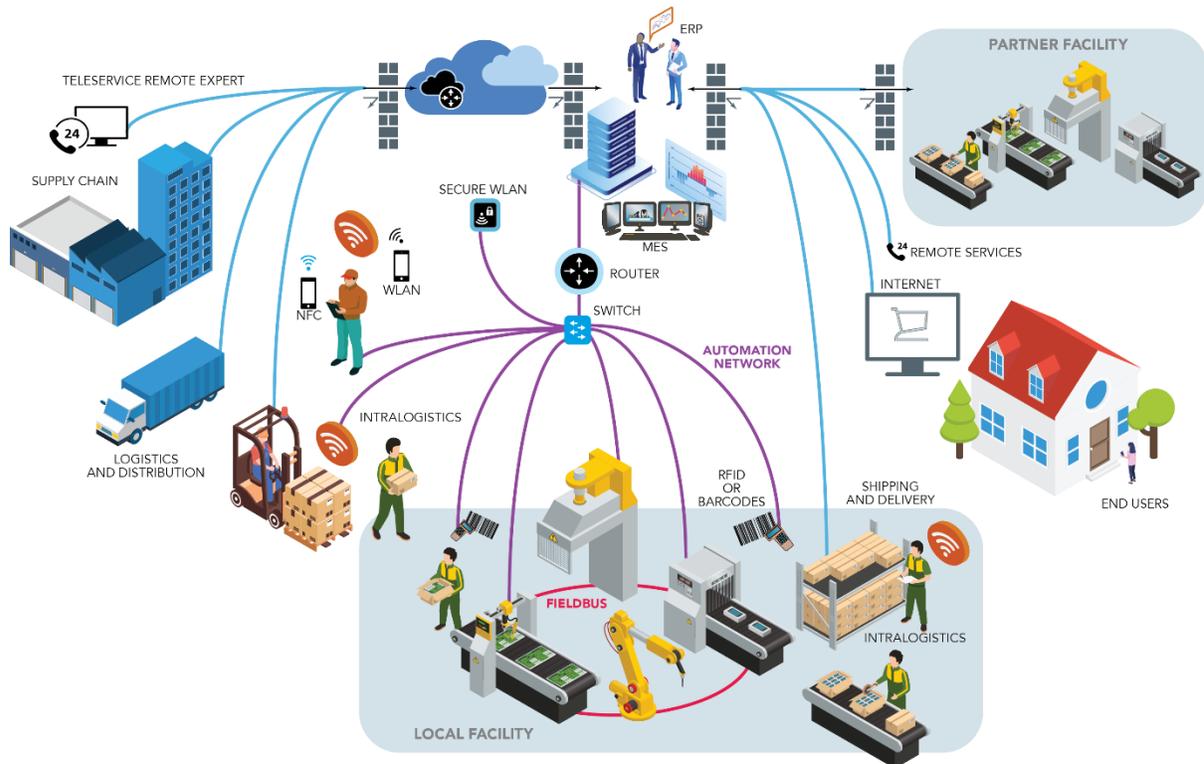
3. **DX-EDGE**

NEWS: The NITI Aayog launched a new initiative called **DX-EDGE (Empowering Excellence and Growth through Digital Transformation)** to support and enhance the performance of India's MSMEs (Medium, Small, and Micro Enterprises).

What is DX-EDGE?

DX-EDGE is a national program aimed at boosting digital transformation for MSMEs by:

- Building a **strong ecosystem** connecting MSMEs, technology providers, and academic institutions.

- Enhancing MSMEs' access to technology **at lower costs** to improve efficiency, increase revenues, and enhance their global competitiveness.

- **Key Highlights**

- **Support for 6 Crore MSMEs:** The initiative will help MSMEs across India through the use of **advanced technologies like Artificial Intelligence (AI) and digital solutions.**

- **Skilled Workforce Development:** DX-EDGE will create a large pool of technical experts.

- **Significance of DX- EDGE**

  - **Promotes Collaboration:** The program will bring together public, private, and academic sectors to encourage innovation.

  - **Adoption of Digital Technologies:** MSMEs need to embrace **digitalization** and **frontier technologies** to remain competitive in the modern economy.

4. WHO GLOBAL TRADITIONAL MEDICINE CENTRE (GTMC)

Context: The **World Health Organisation's (WHO) Global Traditional Medicine Centre (GTMC)** is established in **Jamnagar, Gujarat, India**.

About WHO Global Traditional Medicine Centre (GTMC)

- It is a **specialised centre/knowledge hub** for **traditional medicine** to promote evidence-based research, training, and awareness in **Traditional, Complementary, and Integrative Medicine (TCIM)** on a global scale.

Key Highlights of GTMC

- **First Global Centre for Traditional Medicine:** GTMC is the **first and only outposted WHO Centre** dedicated to traditional medicine **worldwide.**

- **Core Objectives:**

  - Serve as a **knowledge hub** for traditional medicine.

  - Support **scientific research and innovation** in Ayurveda, Yoga, Naturopathy, Unani, Siddha, and Homoeopathy **(AYUSH).**

  - Promote **evidence-based traditional medicine** practices globally. Facilitate **training and skill development** in TCIM.

- **Strategic Collaboration:**

  - The Centre works with global institutions, researchers, and policymakers to integrate traditional medicine into **mainstream healthcare systems**.

  - Aligns with **WHO's global strategy on traditional medicine** to strengthen its role in universal health coverage.

- **Hosting Institution in India:**

- GTMC is based at the **Institute of Teaching and Research in Ayurveda (ITRA)** in **Jamnagar**, which is recognized as an **Institute of National Importance** under the **Ministry of AYUSH.**