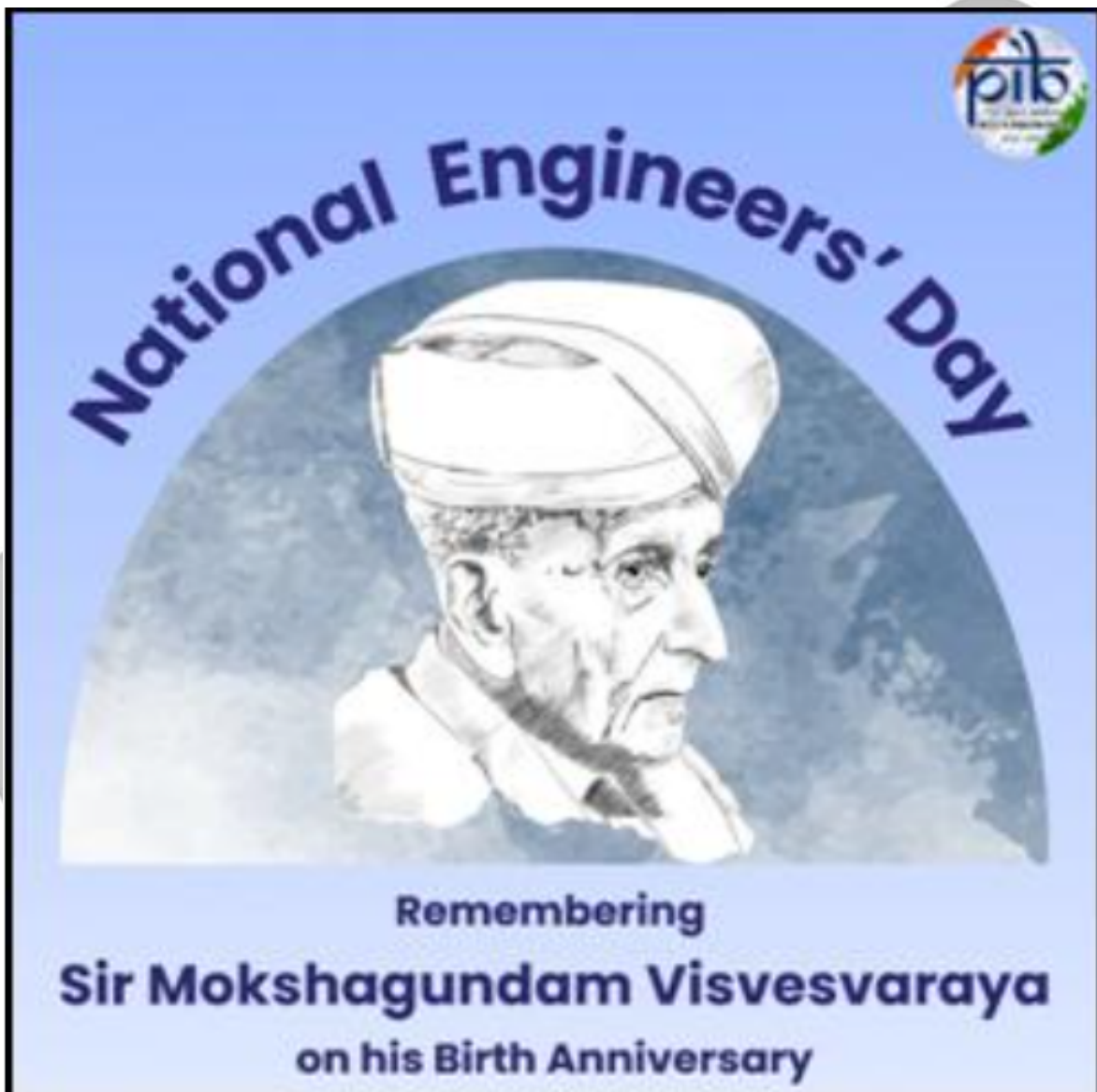




## Mokshagundam Visvesvaraya | Bihar | 16 Sep 2025

### Why in News?

The **Chief Minister of Bihar**, Nitish Kumar, recently paid tribute to Sir M. Visvesvaraya on his **birth anniversary**.



### Key Points

- **About:** Born on 15th September 1861 in Karnataka, he was an eminent engineer, scholar, and statesman.
  - A graduate of the College of Engineering, Pune, he went on to become one of India's most respected engineers.

### ▪ Engineering Contributions:

- He is best known for his pioneering work in flood control and irrigation projects. His design of the [Krishna Raja Sagara \(KRS\) Dam](#) in Mysuru revolutionized water storage and irrigation.
- In 1903, he developed an innovative system of automatic water floodgates, which were installed at the [Khadakwasla Dam](#) in Pune.
- He played a critical role in the planning of the [city of Hyderabad](#), improving its drainage and water supply systems.

### ▪ Role in Public Service:

- He served as the [Diwan of Mysore](#) (1912–1918) and implemented major industrial and economic reforms.
- His emphasis on education, public health, and industrialization laid the foundation for economic development in the region.
- He is widely recognized as an early advocate and practitioner of [Economic Planning in India](#), called the [Visvesvaraya Plan](#), which he presented in a book titled [“Planned Economy in India”](#).

### ▪ Honors and Recognition:

- In 1955, he was awarded India's highest civilian honor, the [Bharat Ratna](#), for his exceptional service to the nation.
- In 1915, he was conferred the title of [“Knight Commander of the Order of the Indian Empire \(KCIE\)”](#) for his contributions to the public good.
- Sir M. Visvesvaraya was appointed in 1911 as a [“Companion of the Order of the Indian Empire \(CIE\)”](#) by [King Edward VII](#).
- He received an honorary membership from the Institution of Civil Engineers, London, a fellowship from the [Indian Institute of Science, Bangalore](#), and several honorary degrees, including D.Sc., LL.D., and D.Litt., from eight universities in India.
- He presided over the [Indian Science Congress](#) in 1923.
- His birth anniversary, **15th September**, is celebrated annually as **Engineers' Day** in India to honor his legacy and contributions to the field of engineering.

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## Sex Sorted Semen Facility at Purnea | Bihar | 16 Sep 2025

### Why in News?

Prime Minister Shri Narendra Modi inaugurated a **state-of-the-art Sex Sorted Semen facility** at the Semen Station in **Purnea, Bihar**.

### Key Points

- **About:** The Sex Sorted Semen facility, developed under the [Rashtriya Gokul Mission](#) with central assistance of ₹10 crore, aims to transform the [dairy sector](#) with a production capacity of 5 lakh doses per year.
- **Indigenous Technology:** The *Gausort* technology, launched by the Prime Minister on 5th October 2024, is a critical component of this facility.
  - It enables the sorting of semen to produce female calves with 90% accuracy, which is pivotal in reducing economic burdens on dairy farmers.
- **Significance:**
  - The facility ensures that Sex Sorted Semen is available at reasonable rates to farmers, especially in the Eastern and North-Eastern regions, aligning with the [‘Make in India’](#) and [‘Atmanirbhar Bharat’](#) initiatives.
  - The technology **boosts the production of female calves**, crucial for dairy farming,

offering **direct economic benefits to farmers**, particularly small, marginal, and landless laborers involved in dairying.

▪ **Purnea Semen Station:**

- Established with a **Central assistance of Rs. 84.27 crores**, the Purnea station is one of the **largest government-owned** semen stations in India and the first of its kind for the Eastern and North-Eastern states.
- The station is currently producing **50 lakh doses per annum**, significantly contributing to the growth of the dairy industry in the region.

## Rashtriya Gokul Mission

- **About:** The RGM, launched in 2014 by the Ministry of Fisheries, Animal Husbandry, and Dairying, aims to develop and conserve indigenous bovine breeds and is implemented by the **Department of Animal Husbandry and Dairying**.
  - The mission continues as part of the [Rashtriya Pashudhan Vikas Yojna](#) for the period **2021 to 2026** with a budget outlay of Rs. 2400 crore.
- **Need:** The decline of indigenous bovine breeds, like **Punganur**(Andhra Pradesh), threatens valuable genetic resources. These breeds are **climate-resilient, produce high-quality milk, and adapt well to local environments**, highlighting the need for preservation efforts.
- **Objectives:** RGM aims to boost bovine productivity, promote high-quality breeding, and strengthen **Artificial Insemination (AI)** services.
  - AI is a **reproductive technology** that involves manually introducing sperm into a female's reproductive tract to achieve pregnancy.
- **Components of RGM:**
  - **High Genetic Merit:** Enhances **genetic merit through bull production** via **progeny testing, Pedigree Selection, [genomic selection](#), and [germplasm import](#)**.
    - It strengthens **semen stations**, implements **[in vitro fertilization \(IVF\) technology for assured pregnancies](#)**, and sets up breed multiplication farms to scale genetic improvement in livestock.
  - **Artificial Insemination Network:** Promotes establishment of **Multi-Purpose Artificial Insemination Technicians in Rural India (MAITRIs)** to expand nationwide AI access.
    - RGM implements the **[National Digital Livestock Mission](#)** to improve data management and service delivery.
  - **Conservation of Indigenous Breeds:** Support for **Gaushalas** for the care and preservation of indigenous cattle.
  - **Skill Development and Awareness:** Focuses on skill development through **capacity-building programs, raising farmer awareness**, and supporting **research and innovation** in bovine breeding.
- **Funding Pattern:** The components of the RGM are largely funded by a **100% grant-in-aid basis**, with some specific components involving partial subsidies (e.g., IVF pregnancies, sex sorted semen, breed multiplication farms).

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## PM Launches National Makhana Board In Bihar | Bihar | 16 Sep 2025

### Why in News?

Prime Minister Narendra Modi inaugurated the [National Makhana Board](#) in Purnea, Bihar as part of the [Union Budget 2025](#) initiative.

## Key Points

- **About:** This new board aims to **strengthen the makhana sector**, enhance its production and processing, and expand its export reach globally.
- **Cost:** The government has approved a **Rs 475 crore** development package to support these efforts.
- **Focus Areas:** The National Makhana Board is set to focus on key aspects of the sector's growth:
  - Raising production standards
  - Improving **post-harvest management**
  - Introducing innovative technologies
  - Enhancing **value addition**
  - Building stronger marketing and **export linkages**
  - Assist **farmer-producer organizations**, helping them access central schemes
- **Ideal Geography:** **The state of Bihar contributes to around 90% of India's makhana production, with the crop grown across 15,000 hectares, producing nearly 10,000 tonnes of popped makhana annually.**
- The production is concentrated in the Mithilanchal region, covering nine districts in northern and eastern Bihar.
- Districts like Madhubani, Darbhanga, and Purnea have the perfect wetland ecology for growing makhana.

Impact	Challenges
<b>Market Growth Potential:</b> Better grading, packaging, and branding can make Mithila Makhana a premium international product, raising farmer incomes.	<b>Low Productivity:</b> Farming is labor-intensive, with slow adoption of high-yield varieties.
<b>Support for Mallah Community:</b> Provides socio-economic uplift and jobs for the traditionally marginalized Mallah community.	<b>Lack of Processing Units:</b> Limited local infrastructure forces raw makhana sales at low prices to other states.
<b>Economic Diversification:</b> Boosts agriculture and food processing, supported by new export infrastructure like expanded airports.	<b>Export Barriers:</b> Poor cargo facilities and export hubs push processing to other states, limiting global reach.
<b>Productivity Focus:</b> Promotion of high-yield varieties like <b>Swarna Vaidehi and Sabour Makhana-1.</b>	<b>Export Efforts:</b> Small consignments sent abroad, but large-scale global presence still lacking.

## Makhana

- Makhana, or fox nut, comes from the aquatic plant **Euryale ferox**, which grows in freshwater ponds **across South and East Asia.**
  - Often called the 'Black Diamond' in its raw dark seed form, it turns white once popped.
- Makhana is **low in calories and fat**, high in plant-based protein, and packed with dietary fibre, antioxidants, and essential minerals like magnesium, potassium, and phosphorus.
- Makhana has been **part of Hindu rituals** for centuries.