

# GEAC Reforms

Posted at: 04/01/2025

## GEAC Reforms: Ensuring Transparency and Accountability in GM Crop Decisions

**Context :** The **Union Ministry of Environment, Forest, and Climate Change (MoEFCC)** has introduced amendments to the rules governing the selection of experts in the **Genetic Engineering Appraisal Committee (GEAC)**. This significant step aims to improve transparency and accountability in decisions regarding genetically modified (GM) crops.

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### About Genetically Modified (GM) Crops

**Genetically Modified (GM) crops** are plants whose DNA has been altered using genetic engineering techniques to introduce desirable traits. These traits may include:

- **Resistance** to pests, diseases, or environmental stresses.
- **Enhanced nutritional content** to combat malnutrition.
- **Higher yields**, contributing to food security.
- **Herbicide tolerance**, simplifying weed control.

Unlike traditional crossbreeding, genetic modification allows the direct manipulation of a plant's genetic material, often incorporating genes from other species to achieve specific results.

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### Amendments to GEAC Rules

#### 1. Disclosure of Conflicts of Interest

- Expert members of the **GEAC** must disclose any **direct or indirect associations** with matters being discussed during committee meetings.
- Members are required to **recuse themselves** from discussions unless explicitly requested by the committee.

#### 2. Background Checks

- Selected members must submit comprehensive forms detailing their **professional affiliations over the past decade** to ensure impartiality and accountability.

#### 3. Supreme Court Directive

- These amendments stem from a **Supreme Court directive (July 2023)**, which instructed

the government to establish a national policy on GM crops.

- The directive also emphasized addressing conflicts of interest after allegations emerged about links between GEAC members and biotechnology companies such as **Monsanto (now Bayer CropScience)**.
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## Context of GM Mustard Approval

The amendments follow the **Centre's controversial decision in 2022** to grant conditional approval for the commercial cultivation of GM mustard crops. The Supreme Court's **split verdict** on this matter left the final decision to a future bench. This highlighted the need for stringent regulations to ensure transparency and unbiased decision-making.

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## Significance of the Amendments

- **Enhanced Credibility:** Ensures that GEAC decisions are **unbiased, transparent**, and free from corporate influence.
  - **Public Confidence:** Addresses long-standing concerns regarding potential conflicts of interest and the undue influence of biotech companies in India's GM crop policies.
  - **Compliance with Legal Mandates:** Aligns regulatory practices with the Supreme Court's directives and international best practices.
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## Benefits of GM Crops

1. **Increased Yield:** Supports food security by producing higher crop yields.
  2. **Pest and Disease Resistance:** Reduces dependency on chemical pesticides.
  3. **Herbicide Tolerance:** Simplifies weed management, reducing labor and costs.
  4. **Enhanced Nutritional Content:** Addresses malnutrition by enriching staple crops with essential nutrients (e.g., Vitamin A in golden rice).
  5. **Environmental Benefits:** Decreases chemical inputs, lowering agriculture's ecological footprint.
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## Concerns and Controversies Surrounding GM Crops

### 1. Environmental Impact:

- Risk of unintended effects on non-target species.
- Potential reduction in biodiversity due to monocultures.

### 2. Health Concerns:

- Despite extensive research confirming safety, public skepticism about **long-term health effects** persists.

### 3. Economic Issues:

- Patented GM seeds can lead to **corporate control** over the food supply.
- High seed costs pose challenges for **small-scale farmers**.

### 4. Ethical and Labeling Issues:

- Ethical debates on genetic manipulation.
- Advocacy for clear labeling of GM products to empower consumer choice.

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## Regulation of GM Crops in India

### 1. Regulatory Framework:

- GM crops and related activities in India are governed by the **Environment (Protection) Act, 1986**.
- The **Genetic Engineering Appraisal Committee (GEAC)**, under the MoEFCC, oversees:
  - Approval for the cultivation, import, export, transportation, and sale of GM crops.
  - Monitoring and risk assessment of GMO-related activities.

### 2. Food Safety Regulations:

- GM foods must comply with standards set by the **Food Safety and Standards Authority of India (FSSAI)**.

### 3. Approved GM Crop:

- Currently, **Bt Cotton** is the **only GM crop approved** for commercial cultivation in India.

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## Way Forward :

The amendments to the GEAC rules mark a pivotal step toward **enhancing transparency, accountability, and public trust** in India's regulation of GM crops. While GM technology offers significant potential to address food security, environmental challenges, and nutritional deficiencies, **robust safeguards** are essential to mitigate associated risks and concerns.

To strengthen this framework, the government could:

- Develop a **comprehensive national policy** on GM crops.
- Foster **independent research** to address safety and environmental concerns.
- Promote **public awareness** to bridge the knowledge gap regarding GM crop benefits and risks.
- Encourage **collaboration** between stakeholders, including scientists, farmers, and policymakers.

This balanced approach will ensure that GM crops contribute to India's agricultural and economic growth while addressing environmental and ethical considerations.

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