

GEAC Reforms

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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.

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.

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.

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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