

# Standing Committee Report Summary

## Genetically modified crops and its impact on environment

- The Standing Committee on Science and Technology, Environment and Forests (Chair: Ms. Renuka Chowdhury) submitted its report on 'Genetically Modified Crops and its impact on environment' on August 25, 2017. Genetically Modified Organisms (GMOs) are plants, animals or microorganisms in which the genetic structure is altered to introduce specific traits. Plants produced from genetic engineering techniques are called Genetically Modified (GM) crops. The salient observations and recommendations of the Committee include:
  - **Regulatory Framework:** The Committee noted divergent views on the effectiveness of the existing regulatory mechanism. It stated that while the government claims to have put a stringent regulatory mechanism in place, civil society organisations are of the opinion that the regulatory mechanism is stringent only on paper. The process depends on data that is made available to regulators by the technology developers. It also noted that none of the regulators conduct closed field trials and are solely dependent on the data provided to them by the technology developer. This leaves scope for technology developers to tamper the data to suit their requirements.
  - The Committee recommended that the central government, in consultation with states should ensure that the process of field trials is done in a closed environment and in consultation with agricultural universities. This will ensure bio and health safety and minimise the scope of fudging primary data.
  - **Genetic Engineering Appraisal Committee:** The Committee noted deficiencies in the functioning of Genetic Engineering Appraisal Committee (GEAC), which grants approval for release of genetically engineered organisms and products in the environment. It stated that most members of GEAC were from government and government aided institutions, and there was no representation from states or from civil society organisations. It also observed ad hocism in the constitution of the Committee and the criteria adopted by the Ministry of Environment for selection of the members and their qualifications. In addition, it noted that two of the top three positions of GEAC are held by bureaucrats of the Ministry, and this can lead to a conflict of interest in the appointment of other members. It recommended that GEAC should be headed by an expert from the field of Biotechnology who has an understanding of scientific data and its implication.
  - It stated that the Ministry should review the functioning and organisational setup of GEAC and take necessary corrective measures. This will ensure that the process of assessment and approval is transparent
  - **Status of GM crops:** The Committee noted that 17 of the 20 most developed countries, including Europe, Japan, Russia, Israel, etc., do not grow GM crops. This is due to the increasing evidence about the lack of safety of GM crops and little or no benefits to justify the risks. In India, Bt cotton is the only GM crop that is cultivated. In its assessment on the success of Bt cotton, the Committee noted that government data talks about production and not the average yield in an area. A better assessment would be to see the increase in yield of cotton since the introduction of Bt cotton in 2005. It observed that the country's cotton yields increased by 69% between 2000-05, when Bt cotton accounted for less than 6% of the total cotton area, but increased by only 10% from 2005 to 2015, when Bt cotton grew to 94% of total cotton area. The Committee recommended that a comprehensive study should be undertaken by the Ministry to better assess the success of Bt cotton.
  - **Commercialisation of GM mustard:** The Committee observed that the Genetic Engineering Appraisal Committee had given its approval for commercialisation of GM mustard, even though the matter is pending for decision with the Supreme Court. It said that there is evidence on adverse impacts of GM mustard since it is an herbicide tolerant GM crop. It also noted that many state governments were opposed to its entry, even in the form of field trials. The Committee recommended that no GM crop should be introduced in the country unless its effect on the environment and human health is scientifically assessed. This should be done by taking into consideration its long term effects, and evaluation should be undertaken in a participatory, independent and transparent manner.



DISCLAIMER: This document is being furnished to you for your information. You may choose to reproduce or redistribute this report for non-commercial purposes in part or in full to any other person with due acknowledgement of PRS Legislative Research ("PRS"). The opinions expressed herein are entirely those of the author(s). PRS makes every effort to use reliable and comprehensive information, but PRS does not represent that the contents of the report are accurate or complete. PRS is an independent, not-for-profit group. This document has been prepared without regard to the objectives or opinions of those who may receive it.