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Herbicide Tolerant (HT) Bt Cotton

Context:

The illegal cultivation of Herbicide Tolerant (HT) Bt cotton has seen a huge jump as the sale of illegal seed packets has more than doubled from 30 lakh in 2020 to 75 lakh in 2021.

About:

Bt Cotton:

Bt cotton is the only transgenic crop that has been approved by the Centre for commercial cultivation in India.

It has been genetically modified (GM) to produce an insecticide to combat the cotton bollworm, a common pest.

Herbicide Tolerant Bt (HTBt) Cotton:

The HTBt cotton variant adds another layer of modification, making the plant resistant to the herbicide glyphosate, but has not been approved by regulators.

Fears include glyphosate having a carcinogenic effect, as well as the unchecked spread of herbicide resistance to nearby plants through pollination, creating a variety of superweeds.

Need for Using HTBt Cotton:

Saves Cost: There is a shortage of the labour needed to do at least two rounds of weeding for Bt cotton.

With HTBt, simply one round of glyphosate spraying is needed with no weeding. It saves Rs. 7,000 to Rs. 8,000 per acre for farmers

Support of Scientists: Scientists are also in favour of this crop, and even the World Health Organization (WHO) has said it does not cause cancer.

But the government has still withheld approval for HTBt.

Issues Emanating from Illegal Sale of HTBt Cotton:

- As it is not approved by the Genetic Engineering Appraisal Committee (GEAC), illegal sale takes place in Indian markets.
- Farmers are at risk with such illegal cotton seed sale as there is no accountability of the quality of seed, it pollutes the environment, the industry is losing legitimate seed sale and the government also loses revenue in terms of tax collection.
- It will not only decimate small cotton seed companies but also threatens the entire legal cotton seed market in India.

Genetic Engineering Appraisal Committee

- The Genetic Engineering Appraisal Committee (GEAC) functions under the Ministry of Environment, Forest and Climate Change (MoEF&CC).
- It is responsible for the appraisal of activities involving large-scale use of hazardous microorganisms and recombinants in research and industrial production from the environmental angle

- The committee is also responsible for the appraisal of proposals relating to the release of genetically engineered (GE) organisms and products into the environment including experimental field trials.
- GEAC is chaired by the Special Secretary/Additional Secretary of MoEF&CC and co-chaired by a representative from the Department of Biotechnology (DBT).

Way Forward

- Regulators only limit their checking/regulation to licensed dealers and seed companies while illegal activity of HT seed sales is carried mostly by unorganised and fly-by-night operators.
- Thus, focus must be shifted to catching them and taking exemplary and strong punitive action.
- Collective action of both centre and state government is required. The Centre has made the policy to ban this variant. But it is the State governments that must also work in tandem with the central government
- Environmental impact assessment should be carried out by independent environmentalists, as farmers do not and cannot assess the long-term impact of GM crops on ecology and health.

Integrated Tri-service Theatre

Commands

Context:

- Recently, a high-level committee has been formed for the consultations on the creation of integrated tri-service theatre commands.
- The committee will examine all issues and find a way forward before a formal note on their creation is sent to the Cabinet Committee on Security.

About:

A high-level committee

- The move was necessitated due to some aspects like bringing in paramilitary forces (which is under Home Ministry) under the purview of the theatre commands and financial implications that may arise in the process of integration.
- The proposed Air Defence Command plans to integrate all air assets of the armed forces while the Maritime Theatre Command plans to bring in all assets of Navy, Coast Guard as well as coastal formations of Army and Air Force under one umbrella.
- On land, the Army's Northern command and Western Command would be converted into 2-5 theatre commands.

Integrated Theatre Command:

- An integrated theatre command envisages a unified command of the three Services, under a single commander, for geographical theatres (areas) that are of strategic and security concern.
- The commander of such a force will be able to bear all resources at his disposal – from the Army, the Indian Air Force, and the Navy – with seamless efficacy.
- The integrated theatre commander will not be answerable to individual Services. Integration and jointness of the three forces will avoid duplication of resources. The resources available under each service will be available to other services too.
- The Shekatkar committee (in 2015) had recommended the creation of 3 integrated theatre commands – northern for the China border, western for the Pakistan border, and southern for the maritime role.

Views in favour of Integration:

- The integrated theatre commander will not be answerable to individual Services, and will be free to train, equip and exercise his command to make it a cohesive fighting force capable of achieving designated goals.

- The logistic resources required to support its operations will also be placed at the disposal of the theatre commander so that it does not have to look for anything when operations are ongoing.
- This is in contrast to the model of service-specific commands which India currently has, wherein the Army, Air Force and Navy all have their own commands all over the country. In case of war, each Service Chief is expected to control the operations of his Service through individual commands, while they operate jointly.
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Views against Integration:

1. There has been no occasion, during actual warfare, when the three services have not operated with commendable cooperation.
2. Faraway land war and medium to high intensity wars are a distant possibility.
3. With increased communication networks, interaction between three organizations is easy, they can come on board, can plan without much consideration of spatial distance, so there is no need for a new organisation.
4. Domain knowledge of the integrated force commander is likely to be limited in respect of the other two Services components under his command, thereby limiting his ability to employ them in the most suitable manner and at the appropriate time.

Current Situation:

- The Indian armed forces currently have 17 commands. There are 7 commands each of the Army and the Air Force. The Navy has 3 commands.
- Each command is headed by a 4-star rank military officer.
- There is one joint command in Andaman and Nicobar Islands.
- It is the first Tri-Service theatre command of the Indian Armed Forces, based at Port Blair in Andaman and Nicobar Islands of India.
- The other tri-service command, the Strategic Forces Command (SFC), looks after the delivery and operational control of the country's nuclear assets.

Recent Developments:

- The appointment of the CDS (Chief of Defence Staff) and the creation of the Department of Military Affairs (DMA) are momentous steps towards the integration and advancement of defence forces.

CDS: It is the single-point military adviser to the government as suggested by the Kargil Review Committee in 1999

Department of Military Affairs: Work exclusively pertaining to military matters will fall within the purview of the DMA. Earlier, these functions were the mandate of the Department of Defence (DoD)

The Chief of Defence Staff General Bipin Rawat has operationalised the third Joint Logistics Node (JLN) in Mumbai.

These JLN's will provide integrated logistics cover to the Armed Forces for their small arms ammunition, rations, fuel, general stores, civil hired transport, aviation clothing, spares and also engineering support in an effort to synergise their operational efforts.

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