



DATE: 8 JULY 2026

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National Food Security Act, 2013 (Source: The Hindu)

- **Objective:** To provide for food and nutritional security in the human life cycle approach, by ensuring access to adequate quantities of quality food at affordable prices to people to live a life with dignity.
- **Coverage:** It covers 75% of the rural population and up to 50% of the urban population receive subsidized food grains under the Targeted Public Distribution System (TPDS). Overall, NFSA caters to 67% of the total population.
- **Eligibility:**
 - Priority Households are to be covered under TPDS, according to guidelines by the State government.
 - Households covered under the existing Antyodaya Anna Yojana.
- **Provisions:**
 - 5 Kg of foodgrains per person per month at Rs. 3/2/1 per Kg for rice/wheat/coarse grains.
 - The existing Antyodaya Anna Yojana household will continue to receive 35 Kg of foodgrains per household per month.
 - Meal and maternity benefits of not less than Rs. 6,000 to pregnant women and lactating mothers during pregnancy and six months after childbirth.
 - Meals for children up to 14 years of age.
 - Food security allowance to beneficiaries in case of non-supply of entitled foodgrains or meals.
 - Setting up grievance redressal mechanisms at the district and state levels.

2 Cloudburst (Source: The Hindu)

CLOUSBURST

A Burst of Rain, A Flood of Impact

Cloudburst is a sudden, intense rainfall over a small area in a short duration, leading to flash floods and destruction.

WHAT IS A CLOUSBURST?



- Extremely heavy rainfall (>100 mm in 1 hour) over a very small area (10×10 km or less).
- Occurs suddenly and without much warning.



HOW DOES IT FORM?



Warm, moist air from the plains rises up the mountains.



The air cools rapidly at higher altitudes and condenses to form clouds.



When these clouds encounter favorable conditions, they release huge amounts of rain in a very short time.



This intense rainfall over a small area causes flash floods, landslides and severe damage.

KEY FEATURES



Short Duration
Heavy rain in 30 minutes to 2 hours



Small Area
Typically less than 10×10 km



High Intensity
More than 100 mm of rain in one hour



Unpredictable
Difficult to forecast even with modern technology

WHERE DOES IT OCCUR?



- Common in mountainous regions, especially in the Himalayas.
- Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh, Darjeeling hills.
- Can occur in any region with favorable conditions.

IMPACTS



Flash floods



Landslides and mudslides



Damage to houses, roads, bridges and infrastructure



Loss of human and animal lives



Loss of crops and livelihoods

RECENT EXAMPLES IN INDIA



Leh (Ladakh) – August 2010
Over 250 mm of rain in less than 1 hour.



Kedarnath (Uttarakhand) – June 2013
Cloudburst triggered devastating floods and landslides.



Jammu (J&K) – July 2021
Heavy cloudburst caused urban flooding and loss of lives.



Himachal Pradesh – August 2023
Multiple cloudbursts led to flash floods, landslides and road blockages.

PREVENTION & MITIGATION



Early Warning Systems: Use of Doppler Radar, Satellite monitoring and AI-based prediction.



Land Use Planning: Avoid construction in vulnerable zones and floodplains.



Afforestation: Protect and restore forest cover in hilly regions.



Drainage Management: Keep natural drainage systems clean and unblocked.



Community Awareness: Educate local communities on risk and response.

WHAT CAN YOU DO?



Stay updated on weather forecasts



Follow alerts and instructions from authorities



Avoid rivers, streams and low-lying areas during heavy rain



Keep an emergency kit ready



Move to higher ground if you are in a vulnerable area



Help others and report any emergency



REMEMBER: Cloudbursts may be short in duration, but their impact can last a lifetime. Stay alert, stay safe!



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3 OptoSAR Satellite Technology (Source: The Hindu)

OptoSAR is a hybrid satellite imaging technology that combines optical imaging and synthetic aperture radar (SAR) on one platform to capture Earth's surface

- It is associated with GalaxEye's Mission Drishti, described as the world's first OptoSAR satellite.

Features

- Optical sensors give clear, color-rich images, but they are affected by clouds and darkness.
- SAR can image through clouds and at night, but its output is harder to interpret.
- OptoSAR fuses both data streams to produce more usable, analysis-ready imagery.

Significance

- It enables day-and-night, all-weather Earth observation.
- It is useful for disaster response, flood mapping, agriculture monitoring, border surveillance, coastal monitoring, and infrastructure planning.
- The fusion approach reduces the gap between visual clarity and weather independence

