



Daily C.A Dated on 14th - June-2018

General studies-1

Global warming:

Why in News?

Antarctica has lost a staggering three trillion tonnes of ice since 1992, according to a landmark study published on Wednesday that suggests the frozen continent could redraw the earth's coastlines if global warming continues unchecked.

Details of Study:

Two-fifths of that ice loss occurred in the last five years, a three-fold increase in the pace at which Antarctica is shedding its kilometres-thick casing, a consortium of 84 scientists reported. .

The findings also highlight the existential threat facing low-lying coastal cities and communities home to hundreds of millions of people.

Up to now, scientists have struggled in determining whether Antarctica has accumulated more mass through snowfall than it loses in meltwater run-off and ice flows into the ocean.

But more than two decades of satellite data — the new findings draw from 24 separate space-based surveys — have finally yielded a more complete picture.

Covering twice the area of the continental U.S., Antarctica is blanketed by enough ice pack to lift global oceans by nearly 60 metres (210 feet).

More than 90% of that frozen water sits atop East Antarctica, which has remained mostly stable even as climate change has driven up earth's average surface temperature by a full degree Celsius.

West Antarctica, however, has proven far more vulnerable to global warming. Already floating, ice shelves breaking off into icebergs do not add to sea level.

But massive glaciers on West Antarctica slowly gliding seaward hold enough water to push oceans up by 3.5 metres (11 feet).



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Two of these glaciers — Pine Island and Thwaites — have accelerated and are today seen as unstable. Together, they act as corks holding back ice mass further inland from falling into the ocean.

Nearly all of the mass shed over the last quarter century has come from West Antarctica, the study found.

Effect on Ocean:

Oceans are currently rising by 3.4 millimetres (0.13 inches) per year. Since 1993, the global ocean watermark has gone up by 84.8 mm (3.3 inches).

In another study published in the journal *Nature Communications*, scientists pointed out that loss of coral reefs due to spikes in water temperature could double the damage from coastal flooding, and triple the destruction caused by storm surges.

General Studies-2

National Dam Safety Bill, 2018

The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has approved the proposal for introduction of Dam Safety Bill, 2018 in the Parliament.

Benefits:

It will help all the States and Union Territories of India to adopt uniform dam safety procedures which shall ensure safety of dams and safeguard benefits from such dams. This shall also help in safeguarding human life, livestock and property.

The draft Bill has been finalised after wide consultation with leading Indian experts and international experts.

Details:

- The Bill provides for proper surveillance, inspection, operation and maintenance of all specified dams in the country to ensure their safe functioning.



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- The Bill provides for constitution of a National Committee on Dam Safety which shall evolve dam safety policies and recommend necessary regulations as may be required for the purpose.
- The Bill provides for establishment of National Dam Safety Authority as a regulatory body which shall discharge functions to implement the policy, guidelines and standards for dam safety in the country.
- The Bill provides for constitution of a State Committee on Dam Safety by State Government.

National Dam Safety Authority

- It shall maintain liaison with the State Dam Safety Organisations and the owners of dams for standardisation of dam safety related data and practices;
- It shall provide the technical and managerial assistance to the States and State Dam Safety Organisations;
- It shall maintain a national level data-base of all dams in the country and the records of major dam failures;
- It shall examine the cause of any major dam failure;
- It shall publish and update the standard guidelines and check-lists for the routine inspection and detailed investigations of dams and appurtenances;
- It shall accord recognition or accreditations to the organisations that can be entrusted with the works of investigation, design or construction of new dams;
- It will also look into unresolved points of issue between the State Dam Safety Organisation of two states, or between the State Dam Safety Organisation of a State and the owner of a dam in that State, for proper solution;
- Further, in certain cases, such as dams of one State falling under the territory of another State, the National Authority shall also perform the role of State Dam Safety Organization thereby eliminating potential causes for inter-state conflicts.

State Committee on Dam Safety



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It will ensure proper surveillance, inspection, operation and maintenance of all specified dams in that State and ensure their safe functioning. It further provides that every State shall establish a "State Dam Safety Organisation", which will be manned by officers from the field dam safety preferably from the areas of dam-designs, hydro-mechanical engineering, hydrology, geo-technical investigation, instrumentation and dam-rehabilitation.

Background:

There are over 5200 large dams in India and about 450 are under construction. Plus there are thousands of medium and small dams. Due to lack of legal and institutional architecture for dam safety in India, dam safety is an issue of concern. Unsafe dams are a hazard and dam break may cause disasters, leading to huge loss of life and property.

The Dam Safety Bill, 2018 address all issues concerning dam safety including regular inspection of dams, Emergency Action Plan, comprehensive dam safety review, adequate repair and maintenance funds for dam safety, Instrumentation and Safety Manuals. It lays onus of dam safety on the dam owner and provides for penal provisions for commission and omission of certain acts.

Polio Experts commend India for maintaining polio-free status

The experts commended the strong leadership of the Government of India, as well as the ownership of the state governments to for maintaining polio-free status for more than seven years and ensuring that every child is vaccinated against the disease.

Observations made:

The last case of polio in India was reported in January 2011.

The programme has ensured adequate protection of children through both mass polio vaccination campaigns and childhood immunization.

There are two types of polio vaccine - oral polio vaccine and injectable polio vaccine, which are both used in India to provide enhanced protection.



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Dr. Michel Zaffran – Head of Polio Eradication, WHO stated that globally the world is closer to polio eradication than ever before.

Eleven cases have been registered in 2018 in only two countries – Afghanistan and Pakistan.

“The experts appreciate the example that India sets for the rest of the world. By eliminating polio in India, the country has demonstrated that global polio eradication is feasible and within reach,” he added.

Community participation remains an integral part of polio vaccination efforts in the country.

The expert group noted that more than 23 lakh vaccinators are mobilized to support every polio mass campaign during which 17 crores children get the oral polio drops.

About Polio:

Poliomyelitis, often called **polio** or **infantile paralysis**, is an infectious disease caused by the poliovirus.

In about 0.5 percent of cases there is muscle weakness resulting in an inability to move.

This can occur over a few hours to a few days.

Poliovirus is usually spread from person to person through infected fecal matter entering the mouth.

It may also be spread by food or water containing human feces and less commonly from infected saliva.



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Those who are infected may spread the disease for up to six weeks even if no symptoms are present.

The disease may be diagnosed by finding the virus in the feces or detecting antibodies against it in the blood.

The disease only occurs naturally in humans

The disease is preventable with the polio vaccine; however, multiple doses are required for it to be effective

E-Governance related developments:

Cashless Ticketing through 'Utsonmobile' app developed by CRIS

Continuing towards digitalization and moving towards becoming a cashless economy, the initiative of faster and more techno-advanced transactions in Indian Railways is being taken up, the Centre for Railway Information System (CRIS) has developed a mobile based application 'utsonmobile'. This application has the following features:

1. The 'utsonmobile' application enables booking and cancellation of unreserved tickets, issue and renewal of season and platform tickets, check and load R-wallet balance and helps maintain user profile management and booking history.
2. The 'utsonmobile' application is very handy, free and is available for both Android and Windows smart phone. Users can download this app from Google Play Store or Windows store free of cost.
3. Upon successful registration, Railway Wallet (R-Wallet) will be created automatically with zero balance to the passenger. There will be no extra cost for creating R-Wallet.



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General Studies-3

Pollution and Duststorm:

Context:

The high pollution levels during this time of the year in Delhi are unusual and primarily due to dust storms from Rajasthan.

Rajasthan is facing extremely dry weather conditions, with high temperatures and wind speeds.

Ministry of Environment, Forest and Climate Change (MoEFCC) has requested Chief Secretary, Delhi to issue appropriate instructions in the matter to the concerned agencies.

Central Pollution Control Board (CPCB) convened an urgent meeting of the Task Force regarding implementation of Graded Response Action Plan (GRAP) today and issued necessary directions to contain local dust sources.

The Task Force has also recommended that public should avoid prolonged exposure.

What is a Duststorm?

A **dust storm** is a meteorological phenomenon common in arid and semi-arid regions.

Dust storms arise when a gust front or other strong wind blows loose sand and dirt from a dry surface.

Fine particles are transported by saltation and suspension, a process that moves soil from one place and deposits it in another.

Drylands around North Africa and the Arabian peninsula are the main terrestrial sources of airborne dust. It has been argued that poor management of the Earth's drylands, such as neglecting the fallow system, are increasing dust storms size and frequency from desert margins and changing both the local and global climate, and also impacting local economies



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About GRAP:

The Government has notified a Graded Response Action Plan for Delhi and NCR, which comprises measures such as:

- 1) prohibition on entry of trucks into Delhi;
- 2) ban on construction activities,
- 3) introduction of odd and even scheme for private vehicles,
- 4) shutting of schools, closure of brick kilns, hot mix plants and stone crushers;
- 5) shutting down of Badarpur power plant, ban on diesel generator sets, garbage burning in landfills and plying of visibly polluting vehicles etc.

The nature, scope and rigor of measures to be taken is linked to levels of pollution viz. Severe + or Emergency, severe, Very poor, Moderate to poor and Moderate, after due consideration by authorities concerned.

The actions are to be implemented in the entire NCR. Besides, action related to stubble burning is to be implemented by Government of Punjab.

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