

White paper

Decoding White Paper
श्वेत पत्र को डिकोड करना

The Union Finance Minister presented a "White Paper" on the Indian economy (prepared by the Ministry of Finance) in the Lok Sabha.

केंद्रीय वित्त मंत्री ने लोकसभा में भारतीय अर्थव्यवस्था पर एक "श्वेत पत्र" (वित्त मंत्रालय द्वारा तैयार) प्रस्तुत किया।

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WHAT IS A WHITE PAPER?

A "White Paper" is a detailed document that informs about a specific issue, often used by governments, businesses, and agencies to present policies, products, or address important topics.

OBJECTIVES:

- Informing the public about the economic and fiscal crises faced by the NDA government in 2014 and the subsequent measures taken to address them.
- Providing insights into the policies and actions implemented by the NDA government to revive the economy.
- Initiating a broader and more informed debate on the importance of national interest and fiscal responsibility in governance.

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Paleo proxies

- A new study, published on February 5 in Nature, has added fuel to there of the threshold-crossing controversy.
- Based on estimates of warming from palaeo-thermometry, scientists from

Australia and the U.S. have said that the earth's surface has already warmed by more than 1.5 degrees C on average over pre-industrial levels.

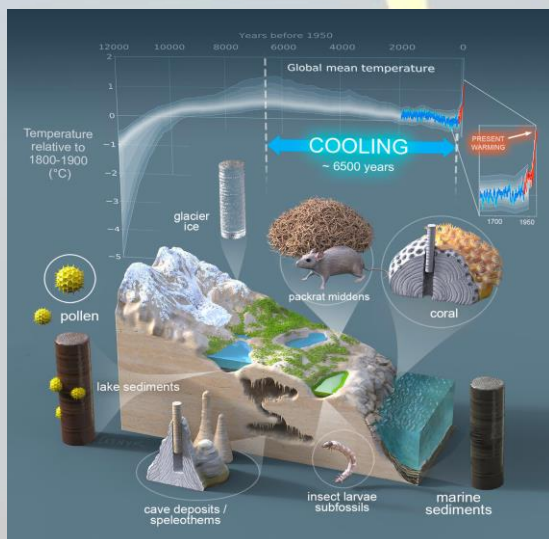
- A major caveat of the study is that the scientists have collected warming data from only one location and have extrapolated it to be indicative of the global mean temperature trend.
- This said, these so-called 'palaeo proxies' constitute an amazing technique that uses chemical evidence stored in various organic matter, such as corals, stalactites, and stalagmites, to approximate the temperature at some point in the past.
- But just as insightful as this chemical evidence can be, we should remember that it is still only indirect evidence of temperature changes with respect to a baseline temperature.
- The evidence can't measure the actual overall temperatures.

What are paleo proxies data?

- In [paleoclimatology](#), or the study of past climates, scientists use what is known as proxy data to [reconstruct past climate conditions](#).
- These proxy data are preserved physical characteristics of the

environment that can stand in for direct measurements.

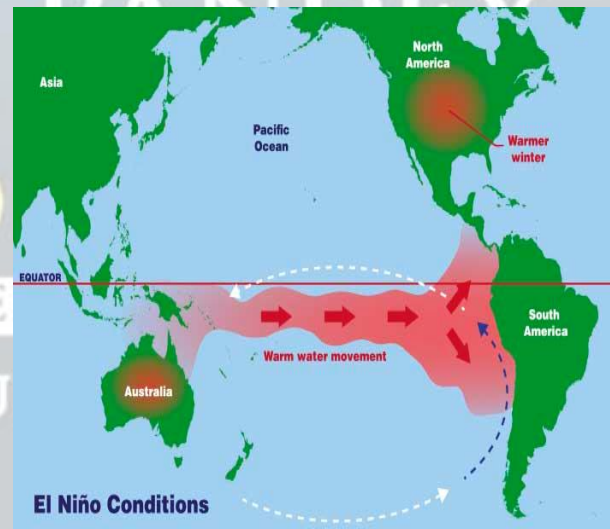
- Paleo climatologists gather proxy data from natural recorders of climate variability such as corals, pollen, ice cores, tree rings, caves, pack rat middens, ocean and lake sediments, and historical data. By analyzing records taken from these and other proxy sources, scientists can extend our understanding of climate far beyond the instrumental record.



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El Niño as a warming paradigm

- The tropical Pacific Ocean keeps soaking up heat during normal and La Niña years and belches it out in an El Niño year.
- This causes a mini global warming, with consequences at distant locations the so-called teleconnections; the latter is what tells us that the pattern of warming really matters.
- Depending on whether warming due to an El Niño is in the eastern Pacific Ocean or closer to the international date line, the impacts on the monsoon and the other parts of the world can be very different.



- An added difficulty is that the El Niño teleconnections themselves also modify the warming pattern.
- As a result, droughts can have a stronger feedback that affects

temperature than floods in many instances.

- The massive deluges that California is experiencing this winter are driven by the El Niño but likely amplified by global warming.
- The amounts of rain and snow will subsequently feedback to local and global temperatures. These same processes work in the global warming regime as well.
- As human-made greenhouse gases initiate the warming, the warming pattern is applied in the Arctic and over the desert regions of the Middle East but damped over the eastern Pacific and the northern Atlantic oceans.
- These local warmings and coolings and their magnitudes determine the net effect of natural variability and global warming in a particular locality.

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Brumation

What is Brumation?

- This is the name to describe a period of dormancy or slowed activity in reptiles, much like hibernation in mammals.

- It typically occurs during colder months, when temperatures drop and food becomes scarce. Reptiles enter a state of brumation to conserve energy and survive these adverse environmental conditions.
- During brumation, reptiles may retreat to underground burrows, rock crevices or other sheltered areas where temperatures are relatively more stable.



- Their metabolism slows significantly, allowing them to go weeks or even months without eating.
- This period of reduced activity allows reptiles to conserve energy and minimise their resource requirements.
- Researchers have observed instances of brumation in various reptilian species across habitats.
- Such species include box turtles and painted turtles, which burrow into

the mud at the bottom of ponds or lakes.

- Snakes may seek refuge in underground dens or caves while lizards may hide under rocks or within vegetation.
- Brumation is crucial for reptiles to survive cold climes and endure challenging environmental conditions until they can reemerge to feed and reproduce in more favourable climes.



Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom, and the United States. Joining the original signatories were Greece and Turkey (1952); West Germany (1955; from 1990 as Germany); Spain (1982); the Czech Republic, Hungary, and Poland (1999); Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia, and Slovenia (2004); Albania and Croatia (2009); Montenegro (2017); North Macedonia (2020); and Finland (2023). France withdrew from the integrated military command of NATO in 1966 but remained a member of the organization; it resumed its position in NATO's military command in 2009.

- The heart of NATO is expressed in Article 5 of the North Atlantic Treaty, in which the signatory members agree that

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NATO

- North Atlantic Treaty Organization (NATO), a military alliance established by the North Atlantic Treaty (also called the Washington Treaty) of April 4, 1949, which sought to create a counterweight to Soviet armies stationed in central and eastern Europe after World War II.

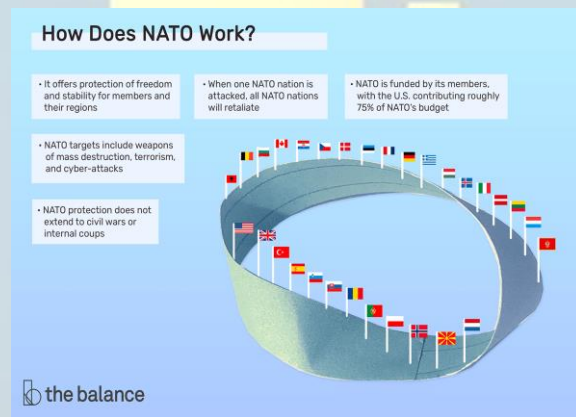
- Its original members were Belgium, Canada, Denmark, France, Iceland,

- *An armed attack against one or more of them in Europe or North America shall be considered an attack against them all; and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defense recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems*

necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area.

mandate, alone or in cooperation with other countries and international organisations.

- NATO invoked Article 5 for the first time in 2001, after the September 11 attacks organized by exiled Saudi Arabian millionaire Osama bin Laden destroyed the World Trade Center in New York City and part of the Pentagon outside Washington, D.C., killing some 3,000 people...



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(EXAMINATION)

FROM BASICS TO UPSC BRILLIANCE

- **POLITICAL** – NATO promotes democratic values and enables members to consult and cooperate on defence and security-related issues to solve problems, build trust and, in the long run, prevent conflict.
- **MILITARY** – NATO is committed to the peaceful resolution of disputes. If diplomatic efforts fail, it has the military power to undertake **crisis-management** operations. These are carried out under the collective defence clause of NATO's founding treaty Article 5 of the Washington Treaty or under a United Nations