

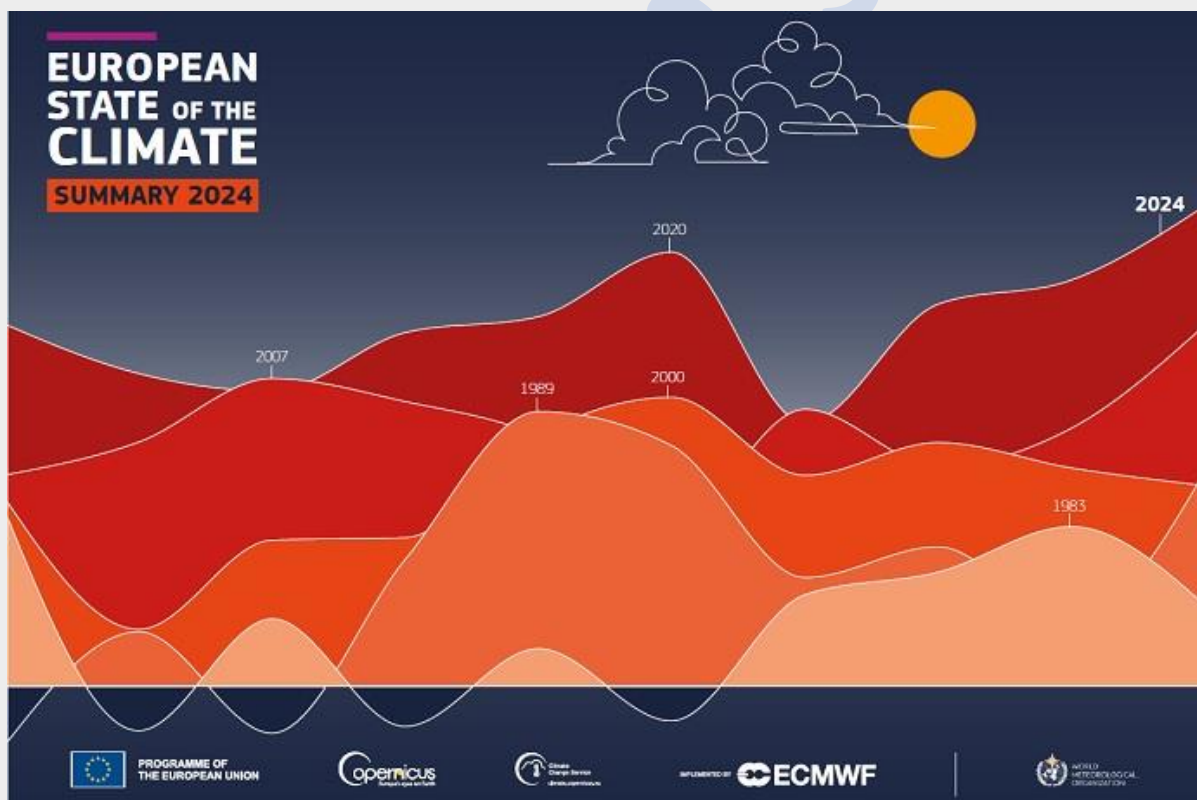
1. Why Europe is warming faster: Causes many, including its cleaner air**Why now?**

While global temperatures have been rising rapidly, primarily due to human activities that release greenhouse gases into the atmosphere, not every region has been warming at the same rate. Europe, for example, has warmed about twice as much as the world as a whole, as highlighted by the 2024 European State of the Climate Report that came out last week.

European State of Climate Report

The European State of Climate Report — an annual publication of Copernicus Climate Change Service, which is part of the European Commission — captures climate trends in Europe, and is published in collaboration with the World Meteorological Organisation.

The new edition of the report has said that the year 2024, which was the warmest ever for the planet, was the warmest for Europe as well. Eastern Europe was sunny and warm, while the western part was cloudier and wetter.



The report said much of eastern Europe saw warmer than average, or record-high, temperatures through the entire year in 2024. Southeastern Europe, comprising countries like Bulgaria, Romania, Croatia, Kosovo, Serbia and others, also experienced its longest heatwave on record.

Higher warming in Europe

The planet as a whole has seen its annual average temperature rise by about 1.3 degree Celsius from the pre-industrial baseline (the average of 1850-1900), though the year 2024 breached the 1.5 degree Celsius warming for the first time.

Europe, however, has seen its average annual temperature rise by about 2.4 degree Celsius compared with pre-industrial times. This has resulted in an unprecedented spate of extreme weather events, including heatwaves, heavy rainfall and flooding.

1. The Arctic Effect

Several factors contribute to the greater rate of warming over Europe, the most prominent being the fact that a substantial part of the continent lies in the Arctic region. In fact, Europe has the largest inhabited landmass in the polar region. And the warming around the poles, particularly the North Pole, is much more pronounced than anywhere else in the world. The contribution of warming around the North Pole pushes the average for Europe.

The prime reason for greater warming in the Arctic is what is known as the albedo effect. The ice cover in the Arctic is melting, because of which more land or water is getting exposed to the Sun. Ice traps the least amount of heat, reflecting most solar radiation back. Land or water, which are darker surfaces, tend to absorb solar radiation better, leading to higher degrees of warming. The melting of ice sheets is a little less in Antarctica, because of which warming in Antarctica is less pronounced than that in the Arctic.

The Arctic is known to be warming three to four times faster than the global average, and accounts for the substantial part of the average global warming.

2. Un-uniform warming

Warming is not uniform over the entire planet. Land areas have warmed more than the oceans, and higher-latitude areas, in general, have warmed more than tropical areas, which are nearer the equator. India, for example, has warmed only 0.7 degree Celsius from pre-industrial times, compared with the average of 1.59 degree Celsius for the entire land area on the planet. These numbers are from studies conducted a few years ago, and would have changed in the last few years.

3. Reduction in aerosols

Another factor contributing to higher warming rate in Europe is the reduction in aerosols emissions, the State of Climate report said. This is ironic since reduction in aerosols points to reduced air pollution and cleaner air to breathe. Aerosols refer to all kinds of tiny solid and liquid particles suspended in the atmosphere, and largely consist of air pollutants.

These particles are able to scatter sunlight back so that there is less absorption of solar radiation by the Earth's surface. Aerosols also help in cloud formation and clouds, in turn, have an impact on how much sunlight is reflected or absorbed.

Europe having relatively cleaner air and less emission of aerosols contributes to a faster warming.

4. Other contributing factors

Many other factors contribute to Europe's faster rate of warming, the climate report said. These include changes in atmospheric circulation that favour more frequent summer heatwaves in the European region, the higher than average increase in the sea-surface temperatures around Europe, urban heat island effect, and the melting of glaciers, which has similar consequences as the albedo effect.

Relevance: GS Prelims & Mains Paper III; Environment

Source: Indian Express

2. Pope Francis dies: How will a new pope be elected?

Why in News?

Pope Francis funeral rites: Pope Francis died after battling a lengthy illness. Pope Francis was hospitalised on February 14, following complications from bronchitis and was diagnosed with bilateral pneumonia. He spent over a month in medical care before returning to his residence to continue his recovery.

Since 1415, all popes except one have died in office. Benedict XVI, Francis's predecessor who assumed the papacy in 2005, retired in 2013, citing a "lack of strength of mind and body".

The transfer of power

Detailed laws and rituals, some dating back to the Middle Ages, govern the transfer of power from one pope to the next. In April 2024, Pope Francis approved an updated version of the Ordo Exsequiarum Romani Pontificis, the liturgical book governing the papal funeral rites to be followed, which will guide the upcoming funeral Mass.

The passing of the pontiff triggers the Interregnum, the intervening period between two papacies.

Traditionally, the Pope's death is verified by the camerlengo, the cardinal who serves as the Church's treasurer. He ceremonially calls out the Pope's baptismal name thrice and pronounces him dead if no response is received. The update to the liturgical book changes where his death will be ascertained, from the room of the late Pope to the chapel.

The Ring of the Fisherman, the Pope's signet ring bearing the seal of his papacy, is broken off to symbolise the end of his rule. The papal apartment is locked and sealed, and the camerlengo informs the College of Cardinals that the Pope is no more. The Novendiale, or nine days of mourning, follows.

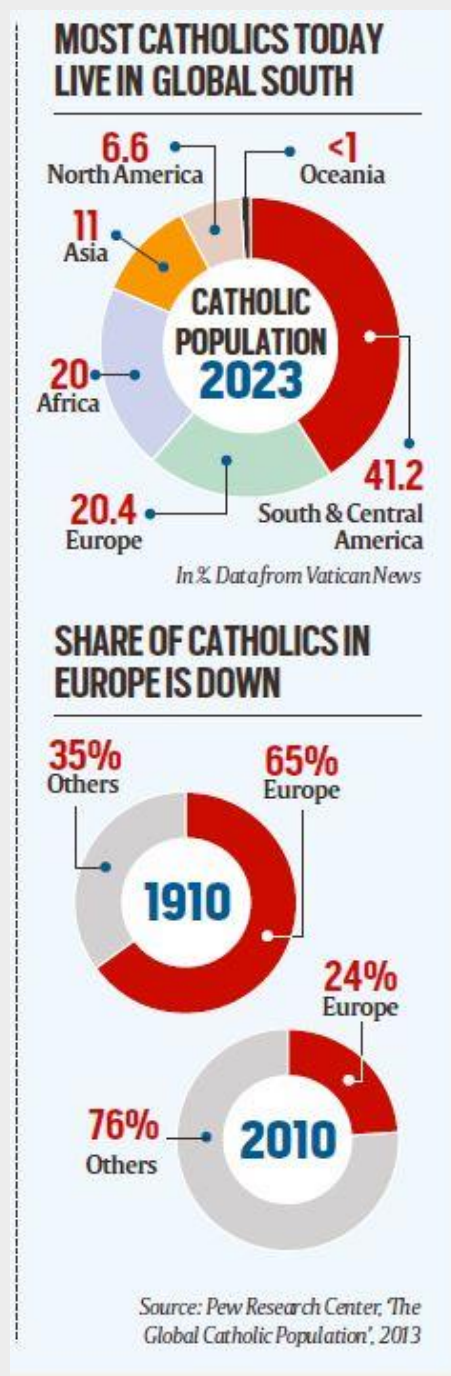
The Pope's body is dressed in papal regalia and placed for public viewing in St Peter's Basilica. In 2022, Pope Francis arranged for his body to be placed in a simple coffin, dispensing with the three coffins made of cypress, lead, and oak that are traditionally used. As per the updated Ordo Exsequiarum Romani Pontificis, the Pope will likely be placed in this coffin for public viewing.

The funeral is held within four to six days, and is led by the Dean of the College of Cardinals. Most popes are buried underneath St Peter's Basilica, but Pope Francis decided in 2022 that he should be buried away from the Vatican, in the Santa Maria Maggiore Basilica in Rome.

Sede Vacante

With the passing or resignation of the Pope begins the period of Sede Vacante, meaning "the seat is vacant", during which the rule of the Church falls to the College.

Within 15-20 days, cardinals under age 80 arrive from all over the world to participate in the papal conclave, the secret election process to determine a successor.



In India, four cardinals under the age of 80 are eligible to vote in a papal conclave. The cardinals, who are sequestered in the Sistine Chapel in the Vatican, vote in several rounds until a single candidate enjoys a two-thirds majority. For each round of voting that does not yield a Pope, black smoke is released from the chapel; white smoke signals the election of a new Pope.

A representative from the College of Cardinals stands in the main balcony of St Peter's Basilica and announces. "Habemus papam (We have a Pope)" to the gathered crowd of faithful. The new Pope, who chooses a name that usually honours a saint or a predecessor, then delivers his first address to the public from the balcony.

The office of the Pope

The Pope is the Bishop of Rome and the visible head of the Catholic Church, which regards Jesus Christ as its invisible head. He is also known as the supreme pontiff, and his office is called the Papacy. The papacy oversees the Holy See, the central governing body of the Church and Vatican City, which enjoys formal diplomatic relations with other nations.

Who was Pope Francis?

Pope Francis was the 266th pope, in a lineage dating back to Saint Peter in 30 CE. He assumed the papacy on March 13, 2013, taking over from Pope Benedict XVI.

He was the first South American Pope and the first from the Jesuit order. He was born Jorge Mario Bergoglio in 1936 in Buenos Aires, and was ordained as a Jesuit priest in 1969. He became a bishop in 1992 and the Archbishop of Buenos Aires in 1998.

From Europe to Africa

According to the *Annuarium Statisticum Ecclesiae* 2023, released by the Vatican's Central Office of Church Statistics in March, the world's Catholic population crossed 1.4 billion in 2023. More than 72% of the world's Catholics lived in South and Central America (41.2%), Africa (20%), and Asia (11%) put together. Europe was home to 20.4% of the Catholic population, and North America 6.6%, according to a report by Vatican News, the official news portal of the Holy See.

The situation was very different in the early 20th century. In 1910, Europe was home to 65% of Catholics, and Latin America roughly 24%, according to data published by Pew Research Center in 2013.

If current trends hold, Europe's share in the global Catholic population will decline further in the coming decades.

Relevance: GS Prelims; International Issues

Source: Indian Express

3. Holy See

Why Now?

Pope Francis died on Monday (April 21), aged 88, after a long illness. He had been hospitalised in February for a long spell of bilateral pneumonia, and spent over a month in medical care before returning to his residence to continue his recovery.

Who is the Pope?

The Pope is the visible head of the Catholic Church, which regards Jesus Christ as its invisible head. He is also the Bishop of Rome.



What is the Holy See?

The Holy See is the central governing body of the Church and Vatican City, which enjoys formal diplomatic relations with other nations.

As the supreme pontiff, the Pope's office or the Papacy presides over the Holy See.

Is the Holy See the same as the Vatican?

No, while the terms are used interchangeably, the two are not the same entity.

The Vatican City is the world's smallest country, and the city-state that serves

as the seat of the Catholic Church. The Holy See is, quite simply, its government, and effectively the government of the Catholic Church.

This dichotomy was established by the Lateran Treaty of 1929, which established the Vatican City as an independent state under the sovereignty of the Holy See. Its jurisdiction empowers it to make decisions on matters of faith and morality for the 1.3 billion Catholics located worldwide.

Legal Status of Holy See

In international law, the Holy See occupies the status of a sovereign juridical entity. While the Holy See does not meet the established criteria for statehood (namely a permanent population, a defined territory, a stable government and capacity to enter into relations with other states), it still possesses a full legal personality in international law by virtue of the diplomatic relations it enjoys with 180 states and its membership in several international organisations.

Additionally, the Holy See is "respected by the international community of sovereign States and treated as a subject of international law having the capacity to engage in diplomatic relations and to enter into binding agreements with one, several, or many states under international law that are largely geared to establish and preserving peace in the world."

How is the Holy See administered?

Through the Roman Curia, the central body and the administrative institutions of the Catholic Church. The Curia comprises the Secretariat of State, the dicasteries (departments of the Church comparable to ministries) and the Bodies, all of which are juridically equal. The Cardinal Secretary of State functions as its chief administrator.

Relevance: GS Prelims; International Relations

Source: Indian Express

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