

The Hindu Important News Articles & Editorial For UPSC CSE

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—It's about quality—

In the meeting of Quad Foreign Ministers, members reaffirmed their commitment to a free, open Indo-Pacific, ASEAN centrality, and regional cooperation.

Quad members vow to work vigorously towards a free, open, and stable Indo-Pacific

Press Trust of India
NEW DELHI

India and other Quad member-nations on Tuesday reaffirmed the grouping's steadfast commitment to work towards a free, open, and peaceful Indo-Pacific amid China's increasing military muscle-flexing in the region.

Foreign Ministers of the member nations of the grouping made the pledge in a joint statement commemorating the 20th anniversary of "Quad cooperation".

India, the U.S., Australia and Japan came together 20 years ago to extend assistance in response to the 2004 Indian Ocean earthquake and tsunami, and that coalition subsequently took the form of the Quad.

In the last few years, the Quad has rolled out a number of initiatives address-



We reaffirm our unwavering support for ASEAN's centrality and unity as well as mainstreaming and implementation of the ASEAN Outlook on the Indo-Pacific

QUAD FOREIGN MINISTERS
In a statement

ing some of the most pressing needs and challenges of the Indo-Pacific region, including in areas of maritime security, infrastructure and connectivity.

India is scheduled to host the next Quad Summit likely in the second half of 2025.

The Foreign Ministers of the four nations said the Quad would work together in responding to the future needs of the Indo-Pacific.

"As four partners, we share a vision of a free and open Indo-Pacific that is peaceful, stable and prosperous, underpinned by effective regional institutions," the joint statement said.

The Quad Foreign Ministers also talked about the centrality of 10-nation grouping Association of Southeast Asian Nations (ASEAN) in the Indo-Pacific. "We reaffirm our unwavering support for ASEAN's centrality and unity as well as mainstreaming and implementation of the ASEAN Outlook on the Indo-Pacific," the Ministers said.

"We respect Pacific-led regional architecture, foremost the Pacific Islands Forum. We are also steadfast in our support for the Indian Ocean Rim Association, the region's premier organisation," they said.

Quadrilateral Security Dialogue (Quad):

- ➡ The Quadrilateral Security Dialogue (Quad) consists of India, the U.S., Australia, and Japan.

Daily News Analysis

- ➡ It was formed in 2007 and initially aimed to provide humanitarian assistance in response to the 2004 Indian Ocean earthquake and tsunami.
- ➡ The Quad's main objective is to promote a free, open, and inclusive Indo-Pacific region.
- ➡ Key areas of cooperation include maritime security, infrastructure development, connectivity, and countering China's growing influence.
- ➡ The Quad emphasizes the centrality of the Association of Southeast Asian Nations (ASEAN) in regional security and the Pacific Islands Forum in the Pacific region.
- ➡ The next Quad Summit is scheduled to be hosted by India in the second half of 2025.
- ➡ The Quad supports regional institutions like the Indian Ocean Rim Association (IORA).

UPSC Mains PYQ 2018

Ques : "What are the key challenges to India's relations with China? Discuss the role of the US in this context."

The 18th edition of Exercise Surya Kiran, a joint military exercise between India and Nepal, began in Nepal's Shivalik ranges.

India-Nepal joint military exercise begins

Press Trust of India

KATHMANDU

The 18th edition of Exercise Surya Kiran, a joint military exercise between India and Nepal aimed at enhancing interoperability and fostering collaboration between the two nations' Armies, began on Tuesday.

The annual training event is conducted alternatively in the two countries.

The exercise, taking place at the Nepal Army Battle School, Saljhandi in the Shivalik ranges of Western Nepal, will be conducted till January 13.

It "aims to enhance interoperability, primarily in

the fields of Counter Terrorism (CT) Operations," according to an X post by the Indian Embassy here.

"Exercise Surya Kiran signifies the strong bond of friendship, trust and common military linkages that exist between India and Nepal," it said. The Indian Army contingent, compris-

ing 334 personnel, is being led by a Battalion from the 11th Gorkha Rifles, according to a press release by the Defence Ministry.

The exercise aims to enhance interoperability in jungle warfare, counter-terrorism operations in mountains and Humanitarian Assistance

Exercise Surya Kiran:

- The exercise is aimed at enhancing interoperability and fostering collaboration between the two countries' armies.
- It is an annual training event conducted alternately in India and Nepal.
- The exercise is being held at the Nepal Army Battle School, Saljhandi, in the Shivalik ranges of Western Nepal.
- The main focus is on counter-terrorism (CT) operations, jungle warfare, and mountain warfare.
- It also includes humanitarian assistance activities.
- Exercise Surya Kiran strengthens the bond of friendship and military cooperation between India and Nepal.

IN-SPACe facilitated the operationalisation of 10 payloads on the POEM-4 module of the PSLV-C60/SpaDeX mission for non-government entities.

POEM-4 module:

- ➡ POEM-4 stands for PSLV Orbital Experimental Module-4.
- ➡ It is a module used to carry out scientific experiments in space.
- ➡ POEM-4 is part of the PSLV-C60/SpaDeX mission, launched by ISRO.
- ➡ The module is a repurposed PS4 stage (a part of the PSLV rocket), which is used to deploy payloads in space.
- ➡ It operates at an altitude of 350 km with a 55-degree inclination.
- ➡ POEM-4 allows non-government entities (NGEs) like start-ups, academic institutions, and research organizations to test space technologies without needing to launch entire satellites.
- ➡ It helps reduce entry barriers for these entities to engage in space activities.
- ➡ A total of 10 hosted payloads were successfully established and operationalised by IN-SPACe on the POEM-4 module.

IN-SPACe

- ➡ IN-SPACe stands for Indian National Space Promotion and Authorization Center.
- ➡ It is an autonomous agency under the Department of Space, aimed at promoting space activities by non-government entities (NGEs).

10 payloads of ISRO's POEM-4 module deployed successfully

Hemanth C.S.
SRIHARIKOTA

The Indian National Space Promotion and Authorization Centre (IN-SPACe) on Tuesday said that it had facilitated the successful establishment and operationalisation of 10 hosted payloads from non-government entities (NGEs) on board the POEM-4 module of the PSLV-C60/SpaDeX mission.

The mission was launched by the Indian Space Research Organisation (ISRO) on Monday.

"The mission that launched today, carried out in-orbit scientific experiments at an altitude of 350 km with a 55-degree inclination, utilizing the spent PS4 stage repurposed as the PSLV Orbital Experimental Module (POEM-4)," said IN-SPACe, which is the autonomous nodal agency under Department of Space to promote NGE's undertake space activities.

Reducing entry barriers

"The PSLV Orbital Experiment Module is a practical solution deployed by ISRO that allows Indian start-ups, academic institutions, and research organizations to test their space technologies without the need to launch entire satellites. By



ISRO's SPADEX Mission successfully lifted off from Sriharikota on Monday.

making this platform accessible, we are reducing entry barriers and enabling a wider range of entities to contribute to the space sector," Pawan Goenka, Chairman, IN-SPACe, said.

"At IN-SPACe, our role is to create opportunities for such collaborations and ensure that India's private sector can grow alongside advancements in space technology. Missions like these will be instrumental in capacity building by enabling NGEs to get their payloads space qualified, thus augmenting their future satellite launch missions," he added.

In total, 24 PS4-Orbital Experiment Module payloads were deployed on board the PSLV-C60 SpaDeX mission to support a wide array of scientific and technological endeavours.

- ➡ It promotes private sector participation in India's space activities.
- ➡ It aims to facilitate and encourage private entities to utilize Indian space infrastructure.
- ➡ It provides a level playing field for private companies in the space sector.
- ➡ It focuses on developing a vibrant and competitive space ecosystem in India.

UPSC Mains Practice Question

Ques : "Critically analyze the role of PSLV in transforming India into a major player in the global space market." (200 words/12.5m)



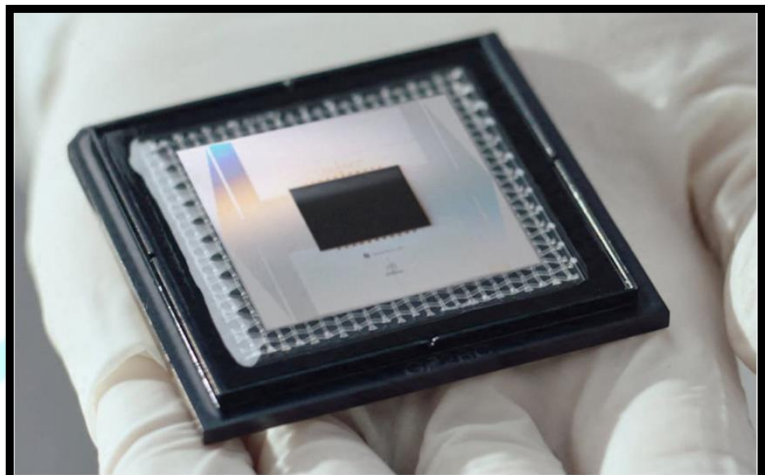
Google unveiled its new quantum chip, Willow, demonstrating advancements in error correction and efficiency for solving complex computational problems.

What is Willow?

- Willow is a quantum processor developed by Google.
- It has 105 physical qubits, which are used to store and process information.
- Willow operates at extremely low temperatures, close to absolute zero (-273°C).
- The processor uses both data qubits and measurement qubits to handle errors.
- Quantum computers like Willow work differently from classical computers by using qubits, which can represent both 0 and 1 at the same time (superposition).
- Willow uses error-correction methods, making it faster and more reliable than other quantum computers.
- It completed a difficult task, random circuit sampling, in minutes, which would take classical computers millions of years.
- Willow shows promise for solving complex problems in areas like drug design, climate science, and optimization.

UPSC Mains Practice Question

Ques : "Explain how quantum chips differ from traditional silicon-based chips. Highlight their advantages and limitations." **(200 words/12.5m)**



Google Quantum AI's Willow chip. GOOGLE/NEUTIS

Willow is a small chip for Google but a quantum leap for computing

A major impediment to realising quantum computers is the fragility of quantum states. Qubits collapse at the slightest disturbance. This limits the amount of time for which qubits can hold information, how error-free a quantum computer can keep its calculations, and how well it can be scaled.

S. Srinivasan

Google recently unveiled its latest quantum processor, named 'Willow'. The research team that built it also tested it, and the results were published in *Nature*. They created a great level of buzz about the realisation of quantum computers that could tackle many practical problems.

The results also kicked up intriguing debates about explaining the power of quantum information processing and how they could solve problems that even the most powerful classical computers struggle with.

Bit versus qubit

Computers process information stored in an array of 0s and 1s. In classical computers, some physical system with two possible states is used to represent these 0s and 1s. These physical systems are called bits. A common example is an electric circuit that allows two levels of voltage, one called 0 and the other called 1. A classical computer is a collection of bits together, and the information flowing in and out of bits is controlled and manipulated by physical operations called gate operations. For example, an 'AND' gate accepts two inputs, each either 0 or 1, and outputs 1 if both inputs are 1 and 0 for any other combination of inputs.

A quantum bit, or qubit, has two distinct states representing 0 and 1. More importantly, a qubit can be in states that are also combinations of 0 and 1. This feature is called quantum superposition. Classical bits can't do this. Because of this ability, each qubit needs two distinct numbers to represent the contributions of 0 and 1 respectively, in the qubit's state. If we have two bits, we need two numbers, one for each bit, to represent the state of the collection. With two quantum bits, we need four numbers to represent the state. For 10 bits, we need 10 numbers to represent the state of the collection. For ten qubits, we need 2^{10} (1,024) numbers. This exponential growth in the information required to represent qubits' states and the superposition of states are the major reasons why quantum computers could be more efficient and powerful than classical computers. Like a classical computer, a quantum computer is also a collection of qubits and a host of physical operations called quantum gates that change the states of qubits to perform calculations.

Difficult to isolate

A major impediment to realising quantum computers is the fragile nature of quantum states. Specifically, while classical bits are robust and long-lasting, qubits are fragile and collapse quickly at the slightest disturbance. This in turn limits the amount of time for which qubits can hold information, how error-free the quantum computer can keep its calculations, and how well a quantum

computer can be scaled.

It is difficult to isolate a physical gadget to avoid perturbations due to external noise. Therefore, computations are prone to errors. For example, when a bit is expected to represent 0, there is a small chance it may be in the state representing 1. This is called the bit flip error. Methods to identify and fix these errors are called error-correction protocols.

A single 0 is represented by three bits in the state 000 (corresponding to each bit in the state 0). If there is a bit flip error, the resulting state could be 100, 010, or 001 (depending on whether the first, second, or third bit is flipped). Similarly, 1 is represented as 111. If we need to encode 01 as the basic information, its true representation is 000111. Looking at the concatenated sequence in groups of three bits, the occurrence of 000, 001, 010, or 110, will mean an error has crept in. When three physical bits represent one logical digit, it is easy to figure out which bit has flipped and correct it suitably before the next step in the computation.

Similarly, one way to mitigate the effect of errors in a quantum computer is to correct them using additional qubits that keep track of errors creeping in during computations. This is a logical answer to the error problem; it is, however, unsuitable for qubits in superposed states. Creating exact copies of unknown superposed states is prohibited by the no-cloning theorem of quantum physics. On the other hand, error correction often requires redundancy, i.e., providing more qubits than what is needed to encode information. This makes it clear that more than one physical qubit is needed

to represent a single logical qubit. (Qubits also have another type of error called phase flip error, which presents similar challenges to error correction.)

One effective method to detect and correct errors in a quantum computer without also violating the no-cloning theorem is called surface code. Here, engineers arrange an array of qubits on a grid. The qubits are grouped into two categories, namely data qubits and measurement qubits. While the error in data qubits is what we wish to identify and correct, any attempt to measure them will force them out of superposition, and whatever information they encode will be lost.

To avoid this, the surface code method provides the set of measurement qubits. These qubits are entangled with data qubits through suitable gate operations. (If two qubits are entangled, any measurement of one particle will instantaneously cause the other particle to lose its superposition state.) In this setup, the presence of errors in the data qubits is inferred by making suitable measurements of the measurement qubits while using the gates to prevent the data qubits from being affected, and thus correcting inconsistencies in data qubits.

The error rate

According to Google, its new quantum processor, Willow, has significantly better error correction and is thus significantly faster than other quantum computers, not to mention classical computers as well. The researchers who developed it tested it by using it to solve a computationally hard problem.

Willow houses 105 physical qubits and operates at temperatures close to the theoretically possible lowest temperature (0 K, 273.15° C). Nearly half of these are data qubits, and the remaining are measurement qubits. The superconducting qubits are not strictly two-state systems. When performing gate operations, the physical system can get excited or 'leak' to states other than 0 and 1. These excited states can subsequently interfere with the computations and introduce errors. So a few qubits - i.e., the measurement qubits - are reserved to correct such leakage errors.

Coherence time is the duration over which an intended state (typically, superpositions) of a qubit can survive without being changed due to interactions with the environment or with other parts of the computer. The coherence time of data qubits on Willow is about 100 microseconds, which is more than the presence time of the physical qubits. This is a consequence of the error correction protocols used. This in itself is an interesting result because it means the information holding time can be improved by external manoeuvring.

The next milestone for researchers to achieve is to lower the error rate - calculated as the ratio of the number of qubit errors to the number of gate

operations - as they build ever larger quantum computers with more physical qubits and more error correction operations. Google alone has progressed from 3-by-3 to 5-by-5 to 7-by-7 arrays of data qubits, and the error rate has decreased by more than half in each step.

What one expects for a collection of qubits on a circuit is that the error rate either remains the same or increases as the number of qubits is increased. That the error rate becomes smaller as more qubits are added is the below-the-threshold capability of Willow's architecture and operation. This is vital to achieving quantum processors with enough qubits that perform almost error-free computations of problems of practical relevance - the ultimate goal.

No dead ends

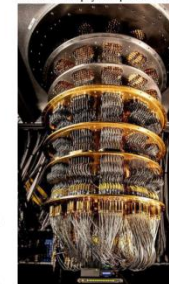
The particularly computationally difficult task with which Google tested Willow is called random circuit sampling (RCS). In the RCS task, Willow has to calculate the probability of occurrence of possible strings of 0s and 1s in the output when the quantum gates that act on the qubits are chosen randomly. If there is no noise, RCS is a computationally hard task, meaning that the number of calculations required to make the prediction increases exponentially with the input size.

Willow completed the RCS task for random gate operations realisable on Willow in a few minutes. The researchers estimated that the same task on the most powerful classical computer available today would take 10 septillion years (i.e., 1 followed by 24 zeroes). To compare, the universe's age in years is approximately 1 followed by 10 zeroes. It is plausible that classical computers running better algorithms may eventually match Willow's feat, although researchers are not aware of such improvements today.

Researchers are still a long way away from realising quantum processors of reasonable size to be useful in practical contexts. This said, it's only natural that Willow created the sort of buzz that it did. It has shown that the major issues in realising a reliable quantum computer can be addressed and surmounted, that they are not dead ends. The work of the Google team provides hope that quantum computers may soon help us unravel nature's mysteries and also solve computationally difficult problems in drug design, materials science, climate modelling, and optimisation, among others - all with deep societal impact.

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A cryostat refrigerator for cooling quantum computing chips at Google's Quantum AI lab in Santa Barbara, California. VIA REUTERS

The article compares U.S. Supreme Court dissents, influenced by political appointments, with India's diverse judicial dissents—political, social, and intellectual.

The nature of dissent in the Indian judiciary

The dissents of the U.S. Supreme Court are largely based on the political inclination of judges, who are direct appointees of the President, confirmed by the Senate. Indian judicial dissents have, however, varied from political, to social to purely intellectual disagreements

LETTER & SPIRIT

Shivani Vij

Dissent is an important facet of a true democracy. While this is true for citizens in the republic, or parliamentarians in the legislature, it is also true for judges of a constitutional court. India and the U.S. are two strong democracies with opinionated judiciaries. Though dissents in the Indian Supreme Court (SC) are as powerful as the U.S. Supreme Court (SCOTUS), their reasons differ.

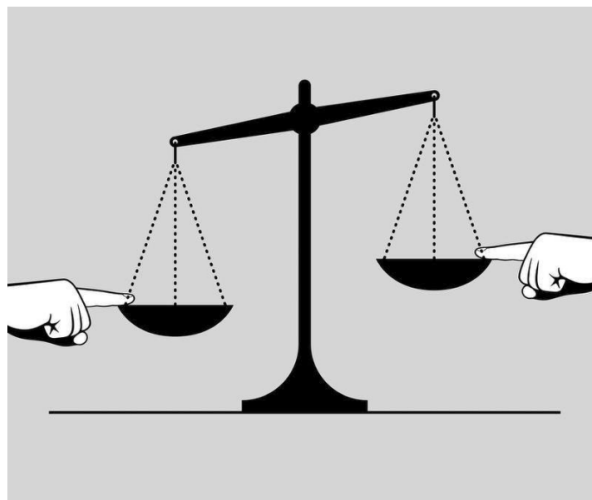
The dissents of SCOTUS are largely based on the political inclination of judges, who are direct appointees of the President, confirmed by the Senate. Justice Stephen Breyer, for instance, an appointee by the Democrats, has shown himself to be pro-affirmative action, pro-abortion and against capital punishment. His dissent in *Glossip versus Gross* (2015) held that capital punishment violated the Eighth Amendment of the Bill of Rights, which prevented inhumane and degrading punishment. Justice Samuel Alito, on the other hand, a Republican appointee, is both anti-abortion and anti-gay rights. His dissent in *Obergefell versus Hodges* (2015) reasoned that the Constitution did not address the right to marry of same-sex couples and therefore, the courts could not grant it.

Indian judicial dissents have, however, varied from political, to social to purely intellectual disagreements.

Political dissent

Unlike the U.S., Indian judges are not appointees of the ruling party and are selected through a collegium of senior judges. Their decisions do not have a similar political undertone and may or may not associate with the view of the ruling party that was in power when they were appointed.

In the case of *ADM Jabalpur* (1976), four out of five judges held that the enforcement of fundamental rights,



ISTOCKPHOTO

including Article 21, remained suspended during the national emergency under Article 359. The majority judgment was the politically sound one at the time. Justice H.R. Khanna, however, withstood the political pressure of the time, dissented and reasoned that if Article 21 remained suspended, there would be no recourse to deprivation of life and liberty, albeit in emergency. His resolve to keep 'rights' intact amidst a turbulent India, strengthened his voice on the Bench and also became the law later by a constitutional amendment to Article 359.

Another example of this could be found in the *P.V. Narasimha Rao* (1998) case, where the question was if accepting bribes for voting in Parliament was covered under parliamentary privilege, and whether it enjoyed immunity from prosecution. The majority said yes, but Justices S.C. Agarwal and A.S. Anand

dissented. The majority view reflected the political atmosphere at the time and was favourable to the ruling Congress party. However, the dissent endured and later became the view of the court in *Sita Soren* (2023), where the SC overruled such an expanded view of immunity.

Dissent which is social

A dissent could also reflect a different social understanding or implication of a legal issue. In *Shayara Bano* (2017), the SC dealt with the constitutionality of the 'triple talaq' as a form of divorce among the Sunnis in Islam. Justices J.S. Khehar and Abdul Nazeer dissented with the majority, which struck down triple talaq for violating the rights of life of Muslim women. The two judges reasoned that the triple talaq was an integral part of the Sunni personal law and not violative of constitutional rights. Further, it was not

for the courts to determine its constitutionality, since it is only the legislature that can intervene in socially unacceptable practices in different religions.

The decision in *Aishat Shifa* (2022) also displayed a discordant understanding of religion. This case did not have a dissent but had two separate opinions. The question was whether the State could prohibit Muslim girls from wearing a hijab to school by enforcing a universal dress code. Justice Hemant Gupta was of the view that secularism permitted the State to do so since religion was a private affair, which had no space in classrooms of a State-run school. Justice Dhulia, on the other hand, disagreed and considered 'diversity', 'plurality' and 'tolerance' as values underpinning the Constitution. This disagreement stemmed from different understandings of secularism.

Intellectual critique

A dissent could also be plainly intellectual, like that of Justice B.V. Nagarathna in *Lalta Prasad Vaish* (2024), the industrial alcohol case. Here nine judges of the SC determined whether States have the legislative competence to tax 'industrial alcohol', or does only the Centre have the authority. Disagreeing with eight judges, Justice Nagarathna said that States could not tax industrial alcohol. The disagreement was on the interpretation of the term 'intoxicating liquor' under Entry 8 of List 2 in the Seventh Schedule of the Constitution. The majority believed that this legislative entry was broad enough to include liquor unfit for human consumption, and therefore industrial alcohol. States could therefore tax it. This reasoning did not sit well with Justice Nagarathna, who opined that industrial alcohol is used for manufacturing purposes and cannot be subsumed within 'intoxicating liquor', which is liquor for human consumption. The difference of opinion was solely on the interpretation of the text of the Constitution—an intellectual one. Shivani Vij is a lawyer practising in Delhi.

THE GIST

Unlike the U.S., Indian judges are not appointees of the ruling party and are selected through a collegium of senior judges.

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A dissent could also be plainly intellectual, like that of Justice B.V. Nagarathna in *Lalta Prasad Vaish* (2024), the industrial alcohol case.

Dissent in Democracies: A Comparative Overview:

➡ Role of Dissent in Democracy

- Dissent is an essential component of a vibrant democracy, including in the judiciary.
- While both the Indian and U.S. Supreme Courts feature powerful judicial dissents, the underlying reasons differ between the two countries.

Daily News Analysis

➡ Dissents in the U.S. Supreme Court (SCOTUS)

- SCOTUS dissents are often influenced by the political leanings of the appointed judges.
- **Example:** Justice Stephen Breyer (appointed by Democrats) supported pro-affirmative action, anti-capital punishment views, as seen in his dissent in *Glossip v. Gross* (2015).
- **Example:** Justice Samuel Alito (appointed by Republicans) opposed same-sex marriage and abortion rights, as demonstrated in his dissent in *Obergefell v. Hodges* (2015).

➡ Political Dissent in the Indian Supreme Court

- Unlike the U.S., Indian judges are selected by a collegium of senior judges, reducing political influence in decisions.
- **Example:** ADM Jabalpur (1976) – Justice H.R. Khanna dissented against suspending fundamental rights during the Emergency, a stance that later became law through a constitutional amendment.
- **Example:** P.V. Narasimha Rao (1998) – Justices Agarwal and Anand dissented on parliamentary immunity regarding accepting bribes, a stance later overruled in *Sita Soren* (2023).

➡ Social Dissent in the Indian Supreme Court

- Dissent can reflect different social views on legal issues, particularly when they touch on personal or religious matters.
- **Example:** Shayara Bano (2017) – Justices Khehar and Nazeer dissented from the majority opinion that struck down triple talaq, arguing it was an integral part of Sunni personal law.
- **Example:** Aishat Shifa (2022) – Justices Gupta and Dhulia had different views on whether the hijab ban in schools infringed upon secularism.

➡ Intellectual Dissent in the Indian Supreme Court

- Some dissents are rooted in intellectual debates over constitutional interpretation.
- **Example:** Lalta Prasad Vaish (2024) – Justice Nagarathna dissented on the interpretation of “intoxicating liquor” in the Constitution, focusing on textual clarity.

Conclusion

- ➡ Dissent serves as a critical tool for maintaining judicial independence and shaping legal precedents in democracies.
- ➡ It fosters deeper engagement with legal principles and societal values.

UPSC Mains Practice Question

Ques : Judicial dissent is crucial for democracy. Discuss the nature and significance of dissent in the Indian Supreme Court, comparing it with the U.S. Supreme Court. **(200 words/12.5m)**

COP29, climate finance and its optical illusion

Finance has been a major point of climate change negotiation since the launching of the United Nations-led climate change negotiations in 1991, producing the United Nations Framework Convention on Climate Change (UNFCCC) 1992. Article 4 (7) of the UNFCCC clearly says “that the extent to which the developing country Party will be fulfilling their climate action commitments is contingent on how much finance and technology they get from developed country Parties”.

The Paris Agreement retains, in Article 9(1), the provision relating to finance, binding the developed countries to mobilise finance for the developing countries. The sixth assessment report of the Intergovernmental Panel on Climate Change (IPCC) has described finance, capacity-building and a transfer of technology as critical enablers of climate action in developing countries in the backdrop of anthropogenic greenhouse gas emissions responsible for 1.1° Celsius of warming (above what it was in 1850-1900) in 2011-20.

Falling short

In pursuance of their responsibility, the developed countries agreed in 2009 that they would collectively mobilise \$100 billion a year by 2020. The \$100 billion mark, met by the developed countries only in 2022, does not match the growing needs of climate finance corresponding to the developing countries' nationally determined contributions (NDCs).

Second, the mark has been considered in many reports to be well-short of estimated finance to fund the actions needed across different sectors to keep the average global temperature rise within 1.5° Celsius by the end of this century. The 29th Conference of the Parties (COP 29) meeting at Baku, Azerbaijan, in November 2024, was meant for the Parties to the Paris Agreement to have a New Collective Quantified Goal on Climate Finance (NCQG), replacing a \$100 billion floor and laying a new floor taking into account the needs and the



Anwar Sadat

teaches international environmental law at the Indian Society of International Law

The scale and the quality of climate finance need to be raised, with sincere efforts being made to have a coherent climate finance architecture in place

priorities of developing countries to tackle the climate crisis.

In response to persistent demand by all the major negotiating groups belonging to the developing south that the developed north mobilise \$1.3 trillion by 2030, the developed north agreed to release only \$300 billion per year by 2035. The \$300 billion mark ignores the estimation by the UNFCCC's Standing Committee on Finance (SFC) relating to the annual financial needs of developing countries, which it derived from their NDCs. As in the SFC's estimation, the financial needs stand at between \$455 billion-\$584 billion. Even these figures cover around half of the 5,760 costed and non-costed needs identified by 98 developing countries in their NDCs (Third Report of the Independent High-level Expert Group on Climate Finance, November, 2024).

The decision on the NCQG makes reference to the financial needs of those particularly vulnerable to the adverse effects of climate change such as the least developed countries (LDC) and small island developing states (SIDS). But the NCQG does not make minimum allocation floors for the LDCs and SIDS.

During the meeting, the Alliance of Small Island States demanded the allocation of \$39 billion for SIDS while the LDC demanded at least \$220 billion for them. It appears that the first-ever Global Stocktake (GST) in consonance with the Paris Agreement in 2023 also failed in influencing the cause of loss and damage concern in the NCQG. In the GST estimation, economic costs are estimated to reach \$447 billion-\$894 billion per year by 2030.

India and the NCQG

India's perspective on the delivery of climate finance from the developed north to the developing south is derived from equity frame expressed in the principle of common but differentiated responsibility and respective capability. It is notable that India joined the Montreal Protocol to protect the ozone layer from

further depletion, which led to setting up of a multilateral fund of \$240 million, including an additional \$80 million for use in India, China and other eligible low-income Parties. During COP29, India specified that the new floor should mobilise \$1.3 trillion by 2030, of which at least \$600 billion should come in the form of grants and concessional resources. On other major agenda items, mitigation work programme, just transition work programme and GST, India's representative called for an adequate provisioning of finance and other means of implementation to fulfil them. India's submission of NDC next year is contingent on a decision relating to finance (Earth Negotiations Bulletin-, November 22, 2024).

India has expressed its extreme disappointment on the adoption of the NCQG in its present form, shape – which was without its consultation. It made serious objections against the COP29 presidency and the Secretariat in the way it was finalised – which is at the expense of trust, collaboration and in contravention of the UNFCCC's norm, on an issue which is a creation of the developed north but which affects developing countries more. India outrightly rejected the NCQG. It also added that this NCQG expects the developing world to mobilise resources. In India's view, the paltry sum will influence the ambition and the implementation of its NDC.

What the developed north must do

The pith and substance of the Paris Agreement are the NDCs. In expecting the developing south to bring out more ambitious NDCs relating to the mitigation of greenhouse gases and implementing the same effectively, it is equally important on the part of the developed north to raise their scale and quality of climate finance and also make sincere efforts in putting in place a coherent climate finance architecture.

This will ensure adequate, directly accessible and affordable climate finance to the developing countries.

GS Paper 02 : International Relations **GS Paper 03 : Environment**

PYQ: (UPSC CSE (M) GS-3 2021): Describe the major outcomes of the 26th session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC). What are the commitments made by India in this conference? **(250 words/15m)**

UPSC Mains Practice Question: Discuss the significance of equitable climate finance in ensuring the successful implementation of the Paris Agreement. How can disparities between developed and developing nations be addressed? **(250 Words /15 marks)**

Context :

- Developed nations' \$300 billion climate finance goal by 2035 falls short of developing countries' demand for equitable support.

Finance in Climate Change Negotiations

- Finance has been central to climate change negotiations since the launch of United Nations-led discussions in 1991, culminating in the UNFCCC (1992).
- Article 4(7) of the UNFCCC links developing countries' climate action commitments to finance and technology provided by developed nations.
- The Paris Agreement (Article 9(1)) binds developed countries to mobilize finance for developing nations, with finance identified as a critical enabler in the IPCC's sixth assessment report.

Falling Short of Commitments

- Developed countries pledged in 2009 to mobilize \$100 billion annually by 2020, a goal met only in 2022.
- This amount is inadequate to meet the growing financial needs for climate actions aligned with developing nations' NDCs.
- The 29th COP in Baku, Azerbaijan, in November 2024 aimed to establish a New Collective Quantified Goal on Climate Finance (NCQG), replacing the \$100 billion floor.
- Despite demands from developing nations for \$1.3 trillion annually by 2030, developed nations proposed only \$300 billion annually by 2035.

Inadequacies in Climate Finance Goals

- Developing countries need \$455-\$584 billion yearly for climate action, as estimated by the UNFCCC's finance committee.

Daily News Analysis

- The NCQG does not set specific funding amounts for least developed countries (LDCs) or small island states (SIDS).
- SIDS asked for \$39 billion and LDCs for \$220 billion during COP29, but these were ignored.
- Global Stocktake 2023 showed future costs could reach \$447-\$894 billion yearly by 2030, but this was overlooked.

India's Stance on the NCQG

- India advocates for climate finance based on equity and the principle of common but differentiated responsibility and respective capability.
- India called for mobilizing \$1.3 trillion annually by 2030, with at least \$600 billion in grants and concessional resources.
- India expressed disappointment over the NCQG's adoption without its consultation and rejected the proposal, citing it as inadequate and unfair.
- India emphasized that insufficient finance impacts its ability to implement and submit ambitious NDCs.

Responsibilities of Developed Nations

- The Paris Agreement relies on ambitious and effective NDCs from developing nations.
- Developed nations must enhance the scale and quality of climate finance and establish a coherent climate finance architecture.
- Adequate, accessible, and affordable climate finance is essential for enabling the developing south to achieve their climate action goals effectively.

Conclusion

- Adequate climate finance is crucial for enabling developing nations to fulfill their climate commitments and achieve global climate goals.
- Developed nations must take responsibility by significantly increasing finance and ensuring accessible, affordable mechanisms.
- Without equitable finance, global efforts to mitigate climate change and achieve the Paris Agreement's targets will remain insufficient.