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**By saurabh Pandey**



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Weightlifting has been associated with building muscle, but its benefits are far more (17) vast.

## The science behind health benefits of heavy lifting

### Nanditha

Weightlifting is not just for bodybuilders or athletes; it is a powerful form of exercise for everyone. From strengthening bones and muscles to preventing chronic diseases and improving mental health, weightlifting offers benefits that reach far beyond the gym.

For years, exercise was almost synonymous with cardiovascular activities like running, cycling, and swimming. But in recent decades, weightlifting or strength training has gained popularity, not only as a path to muscle strength but also as a powerful tool for long-term health.

### Beyond muscles

Weightlifting has long been associated with building muscle, but its benefits reach far beyond aesthetics or physical strength. According to research from the *Journal of Preventive Medicine*, weightlifting improves multiple aspects of physical health, making it a top contender for long-term wellness.

Here is how it impacts the human body: bone and muscle health. One of the most impressive benefits of weightlifting is its effect on bone health. With age, there tends to be a decline in bone

### Weightlifting or strength training has gained popularity, not only as a path to muscle strength but also as a powerful tool for long-term health

mineral density (BMD), leading to osteoporosis, higher risk of fractures, and related mobility issues. Weightlifting could provide a powerful solution for this. Mechanical stress through weight lifting is said to increase BMD. This process is particularly valuable for older adults, to avoid the natural decline in bone density and strength. Furthermore, there is also a decline in muscle mass with age, termed as sarcopenia. Sarcopenia can have detrimental effects on metabolic health and physical fitness. Weightlifting helps to build muscle mass and prevent sarcopenia, even in the elderly.

It also has metabolic benefits, helping with weight management. While aerobic exercise is known to burn calories during the activity, weightlifting offers a unique metabolic advantage. After a weightlifting session, the body continues to burn calories even at rest, a phenomenon known as "excess post-exercise oxygen consumption". Building muscle also supports a higher resting metabolic rate. This effect helps with long-term weight management as well.

Believe it or not, weightlifting actually prevents joint injury, by strengthening the muscles around the joint. When muscle strength improves, it stabilizes joints, reducing the likelihood of strains, sprains, and other injuries that often occur due to weak muscles and poor joint support. For athletes, people with physically demanding jobs, or anyone looking to stay active even in later life, the joint protective benefits of weightlifting are invaluable.

*Dr. Nanditha is director and diabetologist at A. Ramaiah's Diabetes Hospital, Chennai. She was also the gold medalist at the Chennai District Powerlifting event, 2021. [Dr.nanditha.ora@gmail.com](mailto:Dr.nanditha.ora@gmail.com).*

# Topic → Sarcopenia

## Overview

**Definition:** 🦵 Age-related loss of muscle mass and strength.

**Impact:** Increased risk of falls, frailty, and morbidity.

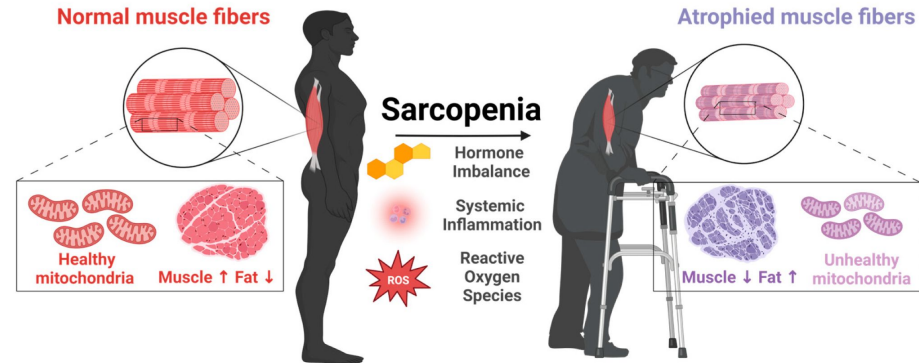
## Key Aspects

### Causes:

Aging 🧓

Sedentary lifestyle 🛋️

Chronic diseases 🏥



# The discovery of insulin and the 'Flame of Hope'

Sir Fredrick Banting's birth anniversary is observed as World Diabetes Day on November 14 every year as a tribute to the history behind the discovery of insulin, one of medicine's greatest breakthroughs; the eternal Flame of Hope burns in Canada to honour Banting's achievement

C. Aravinda

In human physiology, the endocrine glands act by releasing chemical messengers called hormones. They are produced in extraordinarily small quantities, ranging from  $10^9$  to  $10^{10}$  grams. They travel through the bloodstream to influence distant organs and tissues guiding bodily functions. Nervous and endocrine systems carry out a common mandate: to transmit the brain's instructions to peripheral organs and tissues. Unlike the nervous system, which operates through a network of neurons, the endocrine system executes the brain's orders across the body without an anatomical network.

The pancreas holds a unique position as both an endocrine and exocrine organ. It plays an important role in managing blood sugar levels through insulin.

Sir Fredrick Banting's birth anniversary is observed as World Diabetes Day on November 14 every year as a tribute to the history behind the discovery of insulin – one of medicine's greatest breakthroughs.

## Type 1 DM

Type 1 diabetes mellitus (T1DM) is an autoimmune disease where the immune system attacks insulin-producing cells in the pancreas, leading to high blood sugar resulting from insulin deficiency. Unlike type 2 DM, which is common in adults, T1DM often affects children and young adults. Globally, around 9 million people have T1DM. The incidence in India is 4.9 per 1,00,000 annually, per the information from PIB in 2022. The exact cause remains unknown, but genetic and environmental factors, including viral infections, are suspected.

Humans were fighting this illness till the last century without a cure. Symptoms of diabetes like, excessive thirst, frequent urination, and "sweet urine", were found in all major civilisations. It was not until the mid 19th century that meaningful progress began to decypher the mystery. In 1869, Paul Langerhans discovered specialised clusters of cells within the pancreas – later known as the "islets of Langerhans" – and discovered the endocrine role in this organ.

In 1890, German physiologists Oskar Minkowski and Joseph von Merin experimented by surgically removing the pancreas from a healthy dog to investigate its role in digestion. Post-surgery, they observed that the dog developed symptoms characteristic of diabetes, notably, elevated blood sugar levels and the presence of sugar in the urine. This experiment established a direct link between the pancreas and blood sugar regulation. Despite these insights, between 1890 and 1920, several researchers tried, with many unsuccessful attempts, to discover the pancreas's role in diabetes.

**Climax at the University of Toronto**  
After serving as an orthopaedic surgeon in the First World War, Frederick Banting returned to Canada as a war veteran. Driven to pursue research, he approached John Macleod, head of the physiology department at the University of Toronto, in 1920, with the idea of identifying the pancreatic secretion responsible for carbohydrate metabolism. Macleod, though hesitant, provided laboratory space and assigned Charles Best, a medical student, to assist him. Together, Banting and Best conducted experiments on dogs, leading to the successful isolation of insulin from the islets of Langerhans.



Insulin is not a cure but a treatment, allowing people with diabetes to live near-normal lives. GETTY IMAGES

James Collip, a biochemist, played another important role in the practical application of insulin therapy. In 1921, he joined Banting and Best at the university. While Banting and Best had successfully extracted insulin, their preparations were impure and caused adverse reactions in patients. Collip developed a method for purifying insulin, removing toxic impurities, and ensuring its safety and efficacy, as the insulin was prepared mostly from dogs and cows. This was crucial as without Collip's efforts, insulin could not have been administered to patients, and Banting's discovery might have remained theoretical.

On January 11, 1922, Leonard Thompson, a 14-year-old boy with diabetes, became the first person to receive an injection of insulin. Unfortunately, the initial extract was impure, leading to an allergic reaction and minimal reduction in blood glucose levels. Recognising the need for improvement, Collip refined the purification process, producing a more potent and safer insulin extract. A second injection on January 23, 1922, resulted in a significant drop in blood glucose without adverse effects, marking a milestone for humanity. In 1923, the Nobel Prize in Physiology or Medicine was awarded to Frederick Banting and John Macleod for discovering insulin, in a rare instance of the prize being granted so soon after

**Symptoms of diabetes, like excessive thirst, frequent urination, and sweet urine', were found in all major civilisations, but humans were fighting this illness till the last century without a cure**

discovery. Macleod provided Banting with laboratory space and assigned an assistant. However, the award sparked controversy as Banting felt that Best, who had been instrumental in the research, deserved recognition instead of Macleod. Conversely, Macleod believed Collip, who refined the insulin extraction process, deserved credit. In response, Banting shared half of his Nobel Prize money with Best, and Macleod did the same with Collip. Decades later, the Nobel Committee acknowledged the oversight in not including Best, expressing regret for his exclusion from the original award.

Despite these conflicts, Banting, Best, Macleod, and Collip got to share their prize money among themselves. In a remarkable gesture, Banting sold the patent rights to the University of Toronto for just \$1, ensuring that insulin could be produced widely and remain affordable. Collip's extraction techniques to purify insulin were viable for human use but not scalable for mass production. As diabetes

cases increased since then, it became clear that a more efficient method was essential. Enter recombinant DNA technology in the 1980s; scientists developed a method to insert the human insulin gene into *Escherichia coli* bacteria using plasmids – small DNA molecules capable of self-replication. This approach enabled bacteria to produce large quantities of insulin identical to that made by human bodies. The recombinant process allowed for mass production to keep up with the demand.

## Flame of Hope

In 1983, Queen Elizabeth kindled the Flame of Hope in Sir Fredrick G. Banting Square, London, Ontario, Canada, to honour Banting's discovery of insulin. This eternal flame stands as a hope for millions affected by diabetes worldwide, representing the commitment to continue research until a definitive cure is found. The flame will remain lit until a cure is discovered. As we consider Banting's legacy, we realise that insulin is not a cure but a treatment, allowing people with diabetes to live near-normal lives. His spirits might be happier when the flame of hope is extinguished after discovering a cure.

*Dr. C. Aravinda is an academic and public health physician. The views expressed are personal.*  
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# Topic → Understanding the Endocrine System and Type 1 Diabetes Mellitus



## Overview of the Endocrine System

Function: Releases hormones that act as chemical messengers.

Hormone Production: Ranges from  $10^{-9}$  to  $10^{-12}$  grams.

Transport: Hormones travel through the bloodstream to influence organs and tissues.

System Integration: Works alongside the nervous system to transmit brain instructions.

## The Pancreas: A Dual Function Organ

Endocrine Role: Produces insulin to manage blood sugar levels.

Exocrine Role: Secretes digestive enzymes.



# Type 1 Diabetes Mellitus (T1DM)

Description: Autoimmune disease that attacks insulin-producing beta cells.

Demographics: Commonly affects children and young adults.

Statistics: Approximately 9 million people globally; incidence in India is 4.9 per 100,000 annually.

Causes: Unknown, but genetic and environmental factors are suspected.

## Historical Context

World Diabetes Day: Observed on November 14, honoring Sir Fredrick Banting's contributions.

Historical Symptoms: Excessive thirst, frequent urination, and "sweet urine" noted in ancient civilizations.

Discovery: In 1869, Paul Langerhans discovered islets of Langerhans in the pancreas.

# Leverage similarity, complementarity in Nigeria



On November 16-17, 2024, Prime Minister Narendra Modi visits Nigeria, Africa's most populous country and second largest economy. Though on his first visit to that country, he may still find it familiar: from Airtel to Bajaj, Bollywood to Cipla and TVS to Tata, India is ubiquitous in Nigeria. Thanks to a shared Commonwealth legacy and similar challenges, the two multi-ethnic, large developing democracies face identical issues: improved governance, socio-economic development, terrorism and corruption. At the same time, they have complementarity in such strategic areas as hydrocarbons, defence, institution building, health care and education. Leveraging this milieu of similarity and complementarity can catapult the Abuja Summit from "successful" to "historic".

Substantive assets on the ground are available for this endeavour. There are more than 150 Indian companies with footprints in Nigeria with investments estimated at \$27 billion. With bilateral trade at \$7.9 billion, India is Nigeria's second largest trading partner. Nearly 50,000 Indians in Nigeria, the largest *Oyibo* (non-African) group in the country are well regarded for their low profile, professionalism and integrity. Nigerians flock to India for trade, medical treatment and education.

India's hard and soft power in Nigeria might look impressive, but it has lost ground over the past decade. The bilateral trade is half its peak a decade ago when India was Nigeria's largest trading partner. Despite being the top buyer of Nigerian crude, India has no upstream assets there. There are multiple reasons behind this stagnancy. To begin with, a more effective and comprehensive framework is indispensable for bilateral renewal and upgrading through frequent contacts. The Prime Minister's visit takes place after 17 years and the last meeting of the bilateral joint commission, this year, was after 13 years. Nigeria is too big and important a partner for India to channel its development assistance multilaterally through the African Union. India also needs to better leverage the local Indian



**Mahesh Sachdev**

former Indian High Commissioner to Nigeria and the author of the book, 'Nigeria: A Business Manual'

India's hard and soft power in Nigeria might look impressive, but much ground has been lost over the past decade

diaspora, Nigeria's second-largest employer. The two vibrant private sectors should be better empowered through a platform, preferably with financial and underpinning. With foresight and a judicious mix of ambition and sensitivity, India and Nigeria can forge a win-win synergy.

Nigeria, which is currently facing several economic and security headwinds, is looking for friends such as India for help. Since coming to power in 2023, President Bola Tinubu has acted with political courage. Unlike most of his predecessors who merely kicked the can of worms down the road, he has confronted long-standing national challenges. The measures taken include withdrawing petroleum subsidies costing \$10 billion annually, freeing the national currency, the Naira, of controls (leading to a steep depreciation and 32% annual inflation), and dismissing several functionaries including the Central Bank Governor, Head of Secret Service and military brass. These have upended the economy and caused public disaffection. In a recent speech, President Tinubu defended these stiff measures as necessary for national rejuvenation and assured the public that the worst was over.

## Where India could help

Despite the current eco-political conundrum, Nigeria retains its long-term attractiveness for India as a major hydrocarbon supplier, a large market with physical and social infrastructure deficit, and growth potential. While its occasionally stained reputation calls for due diligence and caution, macro-economic management is quite competent and the sovereign commitments are upheld.

The Nigerian leadership has high expectations from the Modi visit. Among its top concerns is upgrading its defence and security services to meet the terrorism and economic anarchy-related challenges such as Boko Haram, oil bunkering, Gulf of Guinea piracy, and a turbulent neighbourhood. Having overcome similar challenges at home, India is well experienced and

equipped to help Nigeria through a comprehensive package of defence supplies, training, and remote sensing. This can, in turn, boost India's defence exports and revive bilateral defence ties epitomised by seven Nigerian Presidents since independence in 1960 being trained in India as defence officers.

An equally urgent Nigerian requirement would be to seek India's help for economic stabilisation as it faces a critical foreign exchange shortage. India could best do so through some strategic initiatives such as partnerships for upstream hydrocarbons and infrastructure, a bilateral comprehensive economic partnership agreement and large financial facilitation through lines of credit and barter arrangements. India can provide the Nigerian requirements of petroleum products, foodstuffs (rice, wheat, milk powder), consumer goods, pharmaceuticals, compressed natural gas conversion kits, textiles and garments, agricultural inputs, and power equipment. The possibility of rupee-based trade can also be put on the table. Other complementarities to be leveraged would include importing palm oil, hides and skins, ginger, and Gum Arabic. Such moves would arrest the 29.7% year-on-year decline in India's exports in 2023-24 to \$3.6 billion. Moreover, it would help locate other drivers for bilateral trade as India now buys less Nigerian crude. Though less tangible, India's services exports in areas such as Information Technology (IT) and IT-enabled services, banking, financial services and insurance, health care, skilling and education also deserve support.

## Half a millennium of shared history

A less-known but interesting historical snippet is about the first direct bilateral contact. A hazy legend traces it to the arrival around 1500 AD of Baba Ghor, a gem merchant from Kano (now in northern Nigeria) who settled down in Ratanpur in Gujarat. He is still revered as a saint and for devising a method to polish agate stones. We need a similar impetus today to make the natural bilateral ties more lustrous.

# Topic → Nigeria and India's Bilateral Relations: The Upcoming Summit



## Overview of PM Modi's Visit to Nigeria

Date: November 16-17, 2024

Significance: First visit in 17 years, fostering long-term relations.

Objective: Strengthening ties through cooperation and addressing shared challenges.

## Key Themes of the Visit

Economic Collaboration:

- Over 150 Indian companies operating in Nigeria.

- Investments estimated at \$27 billion.

- Bilateral trade valued at \$7.9 billion.

Cultural Ties:

- Bollywood, Airtel, and other Indian brands prevalent in Nigeria.

- Large Indian diaspora (approx. 50,000) contributing to local economy.

## Shared Challenges and Opportunities

Governance:

Need for improved governance mechanisms.

Socio-economic Development:

Addressing poverty and economic disparities.

Security Concerns:

Tackling terrorism and corruption collaboratively.



# Political Dynamics

## Leadership Changes:

President Bola Tinubu's economic reforms and their impact.

Political courage to face long-standing issues, such as subsidy withdrawal and currency control.



## Strategic Areas of Cooperation

Hydrocarbons:

Cooperation in oil and gas sectors.

Defense:

Joint training and defense procurement.

Education and Health:

Enhancing educational exchanges and healthcare partnerships.

## Roadblocks and Future Directions

Past Stagnation:

Decline in trade relations from peak a decade ago.

Lack of upstream assets in Nigeria despite being the top buyer of crude.

Need for Framework:

Comprehensive bilateral renewal framework needed.

Regular contacts to sustain momentum.

# India-Nigeria Relations: Opportunities and Challenges

## Nigeria's Long-term Attractiveness

Major hydrocarbon supplier with significant market growth potential.

Faces current challenges but remains a key player in the energy sector.

## Defence and Security Needs

Seeks India's assistance in upgrading defence services.

Aims to combat terrorism and economic instability, especially against Boko Haram.

## Economic Stabilization Support

India's role in helping stabilize Nigeria's economy.

Focus on strategic partnerships and financial facilitation amid foreign exchange shortages.

## Trade Opportunities

Potential for India to supply petroleum, foodstuffs, pharmaceuticals, and textiles.  
Exploration of rupee-based trade to enhance economic ties.

## Decline in Exports

29.7% decline in India's exports to Nigeria in 2023-24, totaling \$3.6 billion.  
Highlights the need for renewed trade initiatives and strategies.

## Services Export Potential

Collaboration opportunities in IT, banking, healthcare, and education sectors.  
Potential for mutual benefits through enhanced services exports.

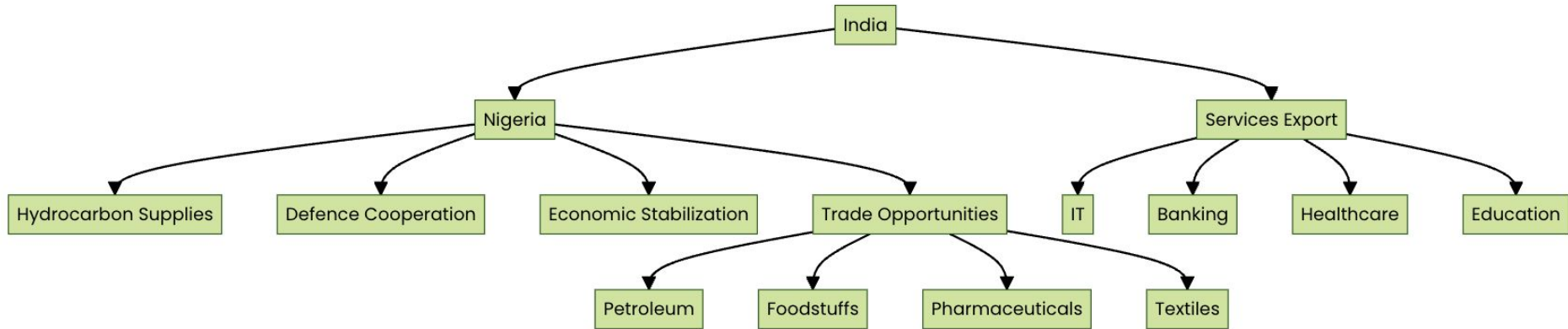
## Historical Ties

Longstanding relationship with Nigeria.  
India has trained seven Nigerian Presidents as defence officers since 1960.

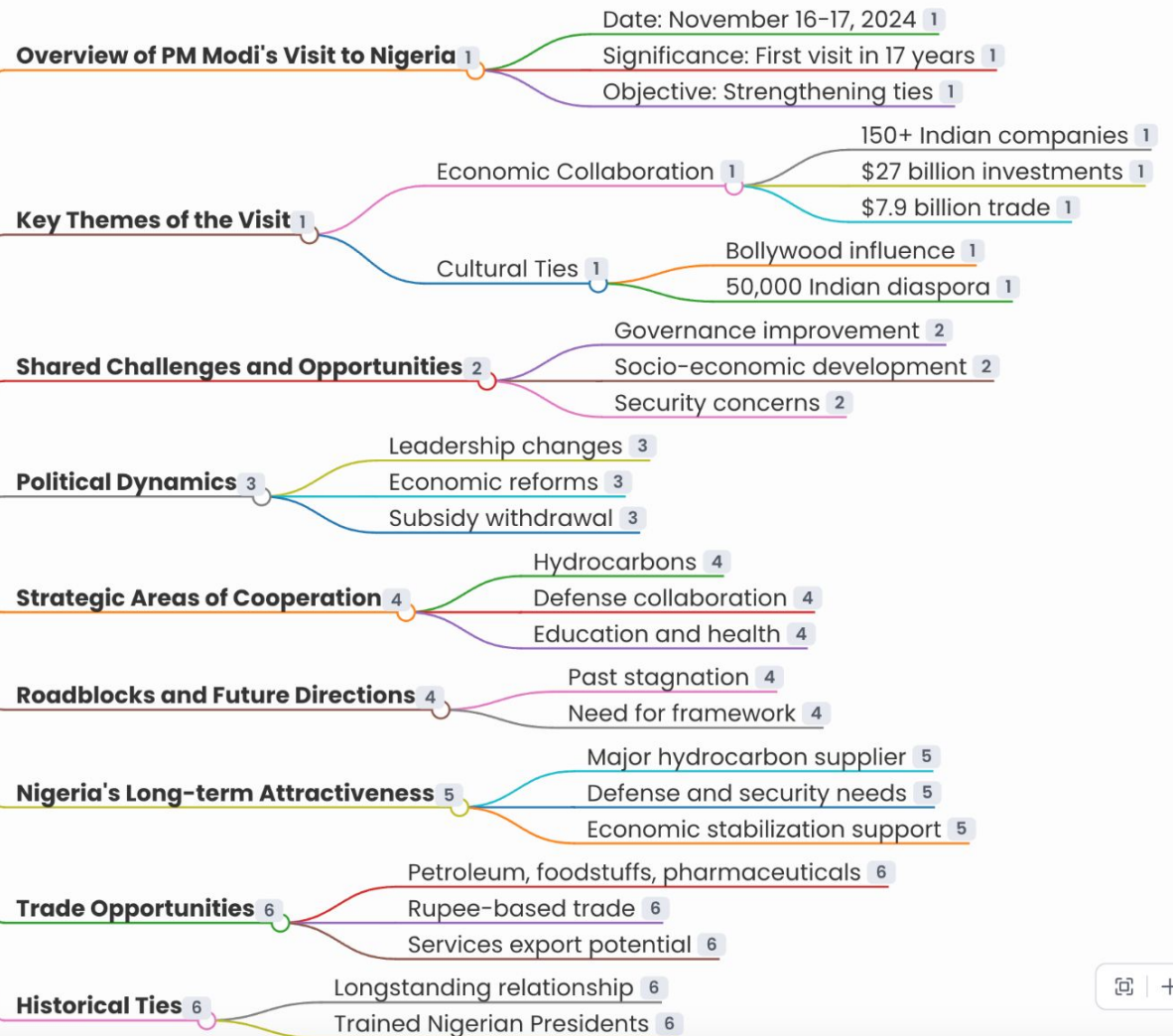
Summary: India has the potential to significantly aid Nigeria in defence, economic stabilization, and trade, leveraging their historical ties and mutual interests.



## Trade and Economic Relations:



# Nigeria and India's Bilateral Relations



# Will the SDS visa move hit students?

What is the Student Direct Stream visa? How did it benefit Indian students seeking to study in Canada? Why did the Canadian government decide to discontinue the fast-track visa programme? What other visa options are available to Indian students?

## EXPLAINER

Ram Srinivasan

### The story so far:

In a significant development, the Canadian government announced the discontinuation of the Student Direct Stream (SDS) visa in November 2024. This decision has far-reaching implications for Indian students, who have historically been one of the largest groups of international students in Canada. In 2022, India accounted for over 21% of all international students in Canada, with a staggering number of 222,450 Indian students choosing to study in Canadian institutions. Over 189,000 Indian students opted for the SDS visa that year, which significantly simplified their application process. For instance, while non-SDS applicants had an approval rate of 16%, SDS applicants enjoyed a 63% approval rate.

### What is the Canadian SDS visa?

The SDS visa, introduced in 2015, was a streamlined pathway designed to expedite the study permit application process for Indian students. It offered a faster processing time and reduced application fees, making it a popular choice among Indian students aspiring to pursue higher education in Canada. However, it also served students from other countries, including Antigua and Barbuda, Brazil, China, Colombia, Costa Rica, Morocco, Pakistan, Peru, Philippines, Saint Vincent and the Grenadines, Senegal, Trinidad and Tobago, and Vietnam. The SDS visa was specifically tailored to several key benefits to international students.

One of the primary advantages was its significantly reduced processing time. By meeting specific eligibility criteria, such as a higher level of English language proficiency and a confirmed admission to a Designated Learning Institution (DLI), students could expect a quicker decision on their study permit application. The SDS visa also offered a lower application fee than the standard study permit, which significantly reduced the financial burden for many international students.

It simplified the application process by requiring fewer supporting documents. By adhering to the specific eligibility requirements, students could submit a more streamlined application, making it easier to navigate the immigration process.

### Why was the SDS visa discontinued?

The Canadian government's decision to discontinue the SDS visa program was driven by a combination of factors aimed at addressing various challenges and concerns within the immigration system.

On his X handle on September 15, Canadian Prime Minister Justin Trudeau said, "We are granting 35% fewer international student permits this year. And next year, that number is going down by another 10%. Immigration is an advantage for our economy - but when bad actors abuse the system and take advantage of students, we crack down." This refers to international applicants who applied for the SDS as an excuse to take a simple diploma course, hardly worth going abroad for, with their ultimate goal being to apply for permanent residency.

While the official reasons cited by the government focussed on "strengthening program integrity, addressing student vulnerability, and giving all students equal and fair access to the application



**Shifting tides:** In 2022, India accounted for over 21% of all international students in Canada, with a staggering number of 222,450 Indian students choosing to study in Canadian institutions. AP

process," several underlying factors likely contributed to this decision. Canada has been grappling with a significant housing shortage, particularly in major cities such as Toronto and Vancouver, and the rapid influx of international students, many of whom rely on off-campus housing, has exacerbated this issue. The increasing number of international students has also placed a strain on public services and infrastructure, including healthcare, education, and transportation.

The Canadian government may be reassessing its immigration policies to better manage the inflow of foreign students and ensure they contribute positively to the Canadian economy. By discontinuing the SDS visa, the government aims to regulate the number of international students, alleviate pressure on housing and resources, and implement a more equitable approach to student visa processing.

### How does the discontinuation affect Indian students?

The discontinuation of the SDS visa has undoubtedly had an impact on Indian students seeking to pursue higher education in Canada and has introduced a host of challenges.

One of the most immediate consequences of the SDS visa's discontinuation is the prolonged processing time for student visa applications. Before the SDS visa, the average processing time for student visas was significantly longer. With the removal of this expedited pathway, Indian students can expect to wait for a more extended period. This delay can disrupt academic plans and cause significant inconvenience.

Additionally, the discontinuation has led to increased application fees. While the exact fee structure may vary, it is generally higher for standard student visa applications than the SDS visa. This additional financial burden can be a considerable challenge, especially for students from lower income backgrounds.

Furthermore, the application process for standard student visas is more complex and rigorous than the SDS visa. Students are required to submit a larger set of documents, including proof of

funds, language proficiency test scores, and detailed study plans. The increased complexity can be overwhelming and time-consuming, potentially leading to errors and delays.

The direct impacts of the SDS visa's discontinuation have far-reaching indirect consequences for Indian students. Potential delays in study plans can disrupt academic progress and career aspirations. Students may have to defer their admissions or explore alternative study destinations, which can impact their overall educational journey.

Moreover, this has created uncertainty about future immigration opportunities. The SDS visa was often seen as a stepping stone towards permanent residency in Canada. With this pathway no longer available, Indian students may face increased challenges in securing post-study work opportunities and ultimately immigrating to Canada.

Experts and stakeholders have expressed concerns about the discontinuation and its potential impact on Indian students. Immigration consultants and education advisors have highlighted the increased processing times, higher application fees, and stricter eligibility criteria associated with the regular student visa process.

Social media platforms have been abuzz with discussions, with many students expressing frustration and uncertainty about their study plans. One student, commenting on a popular education forum, lamented, "The SDS visa was a game-changer. It made the application process much smoother. Now, with its discontinuation, I'm worried about potential delays and increased costs." While the Canadian government has cited concerns about program integrity and equitable access, critics argue that the decision may deter talented Indian students from choosing Canada as their study destination.

### What other options do Indian students have?

While the discontinuation of the SDS visa has presented challenges for Indian students, seeking to study in Canada, there are still viable alternative visa options available. The traditional student visa remains a primary pathway for

international students, including Indians. By meeting the eligibility criteria, such as proof of funds, language proficiency, and a Letter of Acceptance from a DLI, students can apply for a student visa.

However, it is important to note that the standard student visa application process can be more time-consuming and requires a more comprehensive documentation package compared to the SDS visa. Additionally, students may face longer processing times and increased application fees.

To enhance their chances of visa approval, Indian students should carefully plan their applications, submit all required documents on time, and consider consulting with immigration experts to navigate the complexities of the process.

The longer processing times, higher fees, and more complex application procedures have created significant hurdles. The indirect consequences, such as delayed study plans, increased financial burden, and uncertainty about future immigration opportunities further compound the challenges faced by Indian students.

For Indian students considering studying in Canada, it is crucial to plan ahead and prepare thoroughly. Early application is key, as it allows ample time for processing and addressing any potential issues. Thorough documentation is essential to meet the stringent requirements of the regular student visa process.

While the discontinuation of the SDS visa has presented challenges, it is important to remain hopeful for future changes or the introduction of alternative streamlined pathways for international students.

As the Canadian government continues to evolve its immigration policies, new opportunities may arise for Indian students. By staying informed and taking proactive steps, Indian students can navigate the complexities of the Canadian immigration system and achieve their academic and career goals.

*(Ram Srinivasan is a co-founder & CEO of GlobalVista Global Education that provides guidance for students aspiring to do their Undergrad, Master's, PhD, or MBA abroad. He holds an MBA from IIM Ahmedabad.)*

## THE GIST

▼ The Canadian government discontinued the Student Direct Stream (SDS) visa in November 2024. This decision has far-reaching implications for Indian students.

▼ The SDS visa offered faster processing, lower application fees, and simpler documentation, making it a popular option for students.

▼ It was often seen as a pathway to permanent residency, and its discontinuation creates uncertainty about future immigration prospects.

▼ Indian students can still apply for the standard student visa, though it requires more time and preparation.



SAUMIL PANDEY  
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FROM BACHELOR TO TOP EXECUTIVE

## Topic → Canadian SDS Visa Overview



Introduced in 2018: The SDS visa was launched to streamline the study permit application process for international students, particularly from India.

Targeted Indian Students: While primarily aimed at Indian students, the SDS visa also serves applicants from various countries including Brazil, China, and Vietnam.

Faster Processing Time: Students meeting specific eligibility criteria can expect quicker decisions on their study permit applications.

Reduced Application Fees: The SDS visa offers lower application fees compared to the standard study permit, easing financial burdens for students.

**Simplified Application Process:** The application process is less complex, requiring fewer supporting documents for eligible students.

**Designated Learning Institutions (DLI):** Applicants must have confirmed admission to a DLI to qualify for the SDS visa.

**English Language Proficiency:** A higher level of English language proficiency is one of the key eligibility criteria for the SDS visa.

**Summary:** The Canadian SDS visa, introduced in 2018, provides a streamlined and cost-effective pathway for international students, particularly from India, to obtain study permits with faster processing times and fewer requirements.

# As Trump returns, African exporters hope for the best

**Agence France-Presse**  
JOHANNESBURG

Citrus growers in South Africa are among the businesses that are most nervous that duty- and quota-free exports to the United States could be scrapped next year when Donald Trump returns to the White House.

The fruits are among 1,800 products across 32 African countries benefiting from preferential market access under the African Growth and Opportunity Act (AGOA), with companies in South Africa, Kenya, Nigeria and Ghana reaping the most dollars in profits.

But with president-elect Trump having vowed to impose at least a 10% tariff on all imports to the United

States, there is no certainty that AGOA will be renewed.

Analysts say the legislation, passed in 2000 and set to expire next year, could be modified if not withdrawn altogether, with potential negative ramifications for companies and jobs across Africa.

"We need this competitive edge," Justin Chadwick, CEO of the Citrus Growers' Association of Southern Africa (CGA), which also represents Zimbabwe and Swaziland-based orchards, told AFP.

"Should South Africa be removed from AGOA, thousands of rural jobs could be impacted, as well as over a billion rand (\$55.5 million) in export revenue could be lost," he said.

Another South African



**Duty-free:** African citrus growers can currently export their produce to the U.S. without any tariffs. AFP

citrus company told AFP on condition of anonymity that if AGOA were not renewed, it would "kill" their business, which employed more than 3,000 people

and exported an average of 350 containers of sorbet products per year to the United States.

The automotive sector could also feel the heat if

AGOA is shelved, although some companies are betting that US consumers might accept higher prices.

"I don't foresee any major changes in the buying

patterns of Americans around the products that we supply," said Ken Manners, managing director at SP Metal Forgings Group, a South African company that exports vehicle parts to the U.S. "The product base that we supply in the US is very difficult to source anywhere else, so ultimately even if the U.S. put higher tariffs, the U.S. consumer would end up paying for it."

Whether AGOA is renewed or not, it should not have much impact on the broader South African economy, analysts said, though companies should still prepare for changes.

"On the whole of the economy we're not even talking one percent," said Johannesburg-based economist Dawie Roodt.

In any case, "it won't be business as usual," said Ronak Gopaldas of the London-based consultancy Signal Risk.

## 'AGOA-lite'

Companies in Ghana, Kenya and Lesotho also benefit significantly from AGOA, especially in the textile industry.

Mukhisa Kituyi, a Kenyan politician who served as secretary-general of the United Nations Conference on Trade and Development, said he believed the next U.S. administration could push for a renegotiated AGOA rather than a withdrawal.

The U.S. wanted stricter "third country rules of origin" to prevent, for example, companies from bringing textiles from China or

India, stitching them in Africa, and selling them as African clothes. "If they tighten the rules of origin, particularly on textiles and cars, we can see a diluted AGOA-lite going forward," Mr. Kituyi said.


For Lesotho, losing AGOA "would deal a massive blow, potentially leading to the near collapse of the textile and apparel industry", which is the kingdom's second largest employer, trade ministry official Litseko Fiee said.

Mr. Trump will probably "ignore Africa", according to Mr. Roodt, unless countries "get his attention for good or bad reasons".

A determining factor would likely be whether countries are seen as geopolitically aligned with the United States.

# Topic → The African Growth and Opportunity Act (AGOA)

## Overview of AGOA

Purpose: Enhance trade and economic growth between the US and Sub-Saharan Africa 

Established: 2000

Key Features:

- Duty-free access for eligible countries

- Promotes exports from African nations

## Benefits of AGOA

Economic Growth: Boosts economic development in African countries 

Job Creation: Supports local job markets

Investment: Attracts foreign investments into Africa 

## Challenges and Criticisms

Eligibility: Some countries struggle to meet eligibility requirements ❌

Dependence: Risk of over-reliance on US markets

Sustainability: Concerns about long-term sustainability of trade benefits ♻️

## Recent Developments

Reauthorization Efforts: President Biden urges reauthorization for 2025 ↻

Private Sector Engagement: Forums and discussions to enhance private sector participation

Labor Standards: Emphasis on improving labor practices in participating countries 🔧



## Future Outlook

Policy Changes: Potential revisions to enhance effectiveness

Expanding Commitments: Focus on development, labor rights, and climate issues 🌱

Geopolitical Factors: Influence of global politics on AGOA's future

# The African Growth and Opportunity Act (AGOA)

## Overview of AGOA 1

- Purpose: Enhance trade and economic growth 1
- Established: 2000 1
- Key Features: Duty-free access, export promotion 1

## Benefits of AGOA 1

- Economic Growth: Boosts development 1
- Job Creation: Supports local markets 1
- Investment: Attracts foreign investments 1

## Challenges and Criticisms 2

- Eligibility: Struggles for some countries 2
- Dependence: Risk of over-reliance 2
- Sustainability: Long-term concerns 2

## Recent Developments 2

- Reauthorization Efforts: Biden's push for 2025 2
- Private Sector Engagement: Forums, discussions 2
- Labor Standards: Improving practices 2

## Future Outlook 3

- Policy Changes: Potential revisions 3
- Expanding Commitments: Development, labor, climate 3
- Geopolitical Factors: Global politics influence 3

# EU regulator backs Eisai-Biogen Alzheimer's drug

**Reuters**  
AMSTERDAM

The European Union's drugs regulator on Thursday recommended approval of Eisai and Biogen's Leqembi for some patients with early Alzheimer's disease, reversing its initial decision from four months

ago. The backing could make it the EU's first treatment for the brain-wasting condition if this recommendation is accepted by the European Commission.

The regulator's human medicines committee (CHMP) recommended approval for a narrower set of

patients than those evaluated in the drug's trial.

Eisai and Biogen had tested the drug in patients with one or no copy of the ApoE4 gene variant, which is linked with an earlier onset of the disease. The trial also included patients who had two copies of the gene variant.

In July, the regulator rejected the drug saying that the risk of serious brain swelling did not outweigh its small impact on slowing cognitive decline.

The agency said benefits of Leqembi in slowing down progression of disease symptoms are greater than its risks in patients

with one or no copy of the gene variant, which was assessed during the re-examination.

Patients with only one or no copy of ApoE4 are less likely to experience serious side effects of brain swelling and potential bleeding seen in trials, the EU regulator said.

# Topic --ApoE4 gene variant



- **The European Union's drugs regulator recommended approval of Leqembi for early Alzheimer's patients, reversing a previous decision.**
- **This recommendation comes four months after the initial rejection in July.**
- **The approval is for a narrower patient group than those in the original trials, focusing on those with one or no copy of the ApoE4 gene variant.**
- **Patients with one or no copy of the ApoE4 gene are less likely to experience serious side effects, such as brain swelling and bleeding.**
-

- **The regulator previously rejected Leqembi due to concerns that the risks outweighed its benefits in slowing cognitive decline.**
- **The current assessment indicates that the benefits of Leqembi in slowing disease progression are now considered greater than its risks.**
- **Final approval will depend on the European Commission's acceptance of the regulator's recommendation.**
- **Summary: The EU's drugs regulator has recommended Leqembi for early Alzheimer's patients, focusing on a specific gene variant group, reversing a prior rejection due to safety concerns.**



**Living memory:** A visitor at Gulag Museum, dedicated to the victims of Soviet-era repression. FILE PHOTO

## Russia shuts down Moscow's famed Gulag Museum

**Agence France-Presse**

MOSCOW

Russian authorities ordered the closure from Thursday of Moscow's award-winning Gulag History Museum, dedicated to the victims of Soviet-era repression.

The closure was officially put down to alleged violations of fire safety regulations, but comes amid an intense campaign being waged by the Kremlin against independent civil society and those who question the state's interpretation of history.

"The decision to temporarily suspend the activities of the State Gulag Museum was taken for safety reasons," the Moscow city culture department said on Thursday.

The museum removed content from its website, replacing it with an announcement of the "temporary" closure. Established in 2001, the Central Moscow Museum brings together official state documents with family photographs and objects from gulag victims. Moscow authorities said 46,000 people visited in the first nine months of the year. The gulag was a vast network of prison labour camps set up in the Soviet Union. Millions of alleged traitors and enemies of the state were sent there, many to their deaths, in what historians recognise as a period of massive political repression.

Outside the museum on Thursday, a worker lamented its possible closure. "It's a strong museum, very impressive. It's disappointing that this happened. It's a loss, a great loss if, God forbid, it's permanent," he said.

# Topic → Closure of the Gulag History Museum in Moscow



## Overview

Event: Closure of Moscow's Gulag History Museum

Date: Ordered on Thursday

Justification: Alleged fire safety violations

Context: Part of a broader crackdown on independent civil society in Russia

## Key Points:

The museum is dedicated to victims of Soviet-era repression.

Established in 2001, it showcases state documents and personal memorabilia of gulag victims.

46,000 visitors in the first nine months of the year reported.

The closure reflects ongoing tensions in the interpretation of history by the Kremlin.

# 'Tajikistan lost over 1,000 glaciers in last three decades'

**Agence France-Presse**

DUSHANBE

More than 1,000 glaciers have disappeared in Tajikistan over the last three decades, the Central Asian nation's Energy Minister said on the sidelines of the COP-29 climate conference in Baku.

The thousands of glaciers across mountainous Central Asia are crucial to the region's food and water security, typically draining fresh water into rivers to replenish them during arid periods.

"Over the past 30 years, out of 14,000 glaciers in Tajikistan, more than 1,000 glaciers of vital importance to the entire region have disappeared," Daler Juma, Tajikistan's Energy and Water Resources Minister said, according to a statement published by the Ministry on Wednesday.





# Topic → Disappearance of Glaciers in Tajikistan



## Overview

Issue: Over *1,000 glaciers* have disappeared in Tajikistan in the last 30 years.

Significance: These glaciers are vital for the *region's food and water security*.

## Key Points:

Impact on Water Supply: Glaciers drain fresh water into rivers, replenishing them during arid periods.

Climate Change: Rapid climate change is accelerating glacier melt.

Statistics: Out of *14,000 glaciers*, more than *1,000* of crucial importance have vanished.

# Zeravshan glacier (TAJIKISTAN) melt due to climate warming



- **The largest valley glacier of the region is the Fedchenko Glacier.**
- **Rivers of Tajikistan are the main sources of water replenishing the Aral Sea. They provide neighboring areas with water for irrigation and power generation. There are several largest river basins in the republic: Syrdarya (Northern Tajikistan), Zeravshan (Central Tajikistan), Pyandj (SouthWestern Tajikistan and Pamir), closed basin of the lakes of the Eastern Pamir.**
- **The largest rivers are Pyanj, Vakhsh, Syrdarya, Zeravshan, Kafirnigan, Bartang. Most of the rivers in Tajikistan are of mountainous origin.**

- **Most of the water resources are formed in the basins of Pyandj and Vakhsh rivers.**
- **During flood season, when snow melts intensively and heavy rainfall occurs (April-August), the rivers carry a lot of suspended solids, which can exceed 5kg/cub.m (Amudarya and Kysylsu river).**

## Bubbling with life



**Fresh hope:** Divers swimming over the world's largest coral located near the Pacific's Solomon Islands. In an announcement on Thursday, scientists announced its discovery, saying it's 'pulsing with life and colour'. AFP

# Topic → Discovery of the World's Largest Coral



## Overview of the Discovery

*Location:* Solomon Islands

*Species:* Pavona clavus

*Age:* 300-500 years

*Measurements:*

Circumference: 183 meters

Width: 34 meters

Length: 32 meters

Height: >5 meters





# Significance

## Ecological Importance:

Habitat for various marine species (fish, crabs, shrimps)

Highlights the health of marine ecosystems

## Cultural Importance:

Represents the natural heritage of the Solomon Islands

Reinforces local traditions and identity



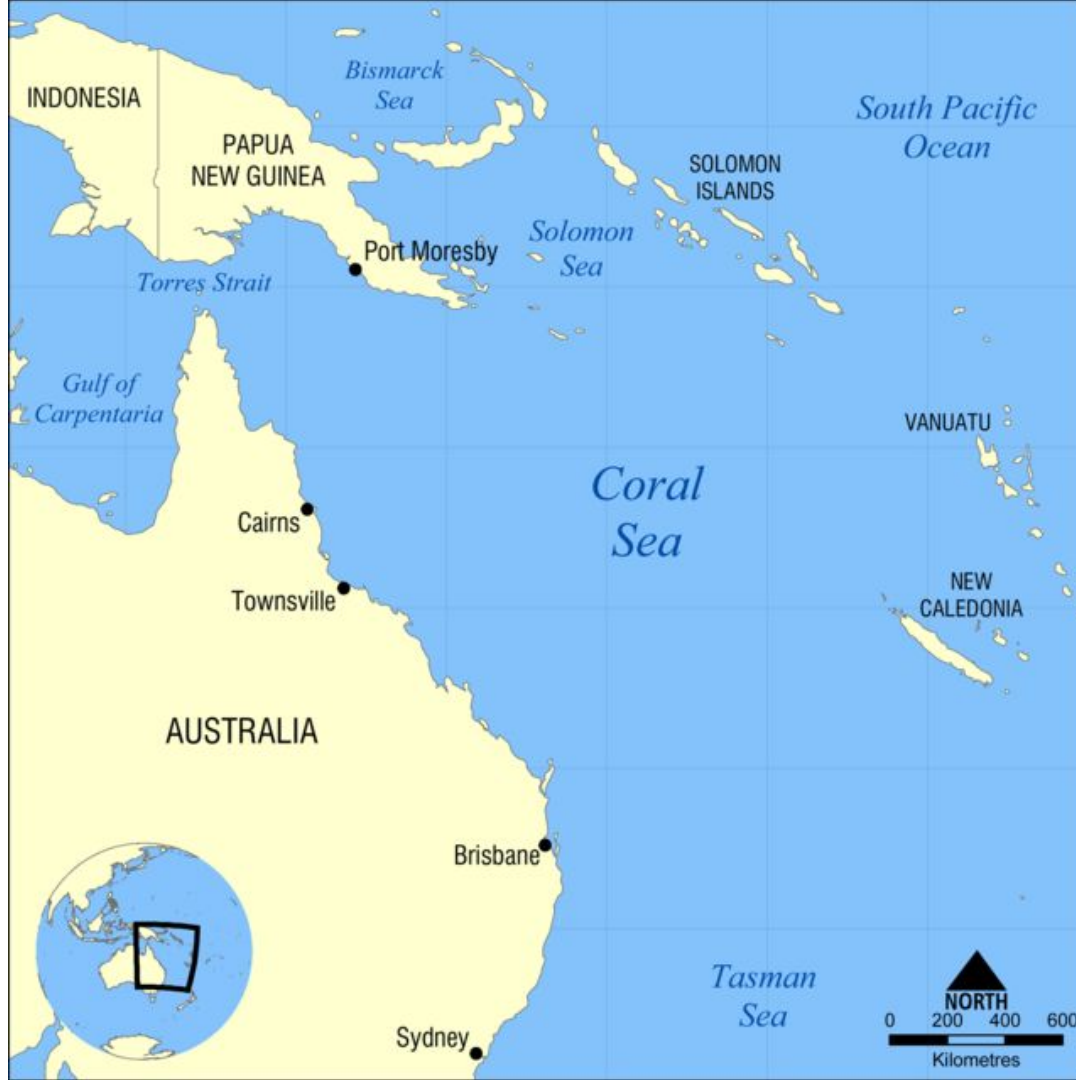


- At about 111 feet wide and 104 feet long, the team said the "mega coral" was three times bigger than the previous record holder — a coral dubbed "Big Momma" in American Samoa. The massive coral is not a coral reef, structures that can be far larger but are comprised of many distinct coral colonies.
- The coral was discovered at the southeastern tip of the Solomon Islands, in an area known as the Three Sisters.
- Hotter and more acidic oceans have drained the life from corals in many of the region's tropical waters, a process called bleaching, including Australia's famed Great Barrier Reef.

# Solomon Islands

A double chain of volcanic islands and coral atolls





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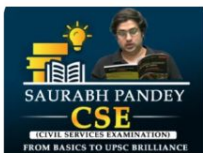
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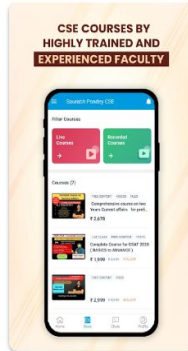
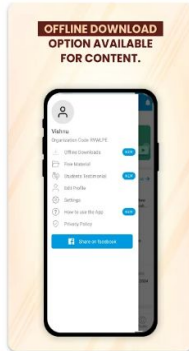
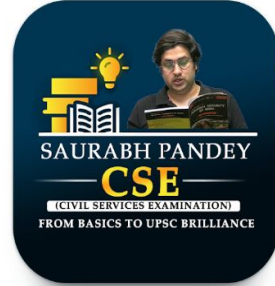
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