

## AKSHARDHAM TEMPLE



**Akshardham Temple, also known as the Swaminarayan Akshardham Temple, is a magnificent Hindu temple complex located in Delhi.**

Akshardham Temple was inaugurated on November 6, 2005, by Pramukh Swami Maharaj, the spiritual leader of the BAPS Swaminarayan Sanstha (Bochasanwasi Shri Akshar Purushottam Swaminarayan Sanstha), a prominent sect within Hinduism.

The temple was built to honor Bhagwan Swaminarayan (1781-1830), the founder of the Swaminarayan tradition.

### Architecture

The temple complex showcases stunning architecture inspired by ancient Vedic and Hindu architectural principles.

The main monument is made of intricately carved **pink sandstone and white marble**.

It stands 141 feet tall and features more than 20,000 statues and sculptures.

The central monument represents Mount Meru, the mythical abode of the gods.

### Main Attractions

**Yagnapurush Kund:** This is the world's largest stepwell and serves as the central feature of the temple complex. It hosts the spectacular Sahaj Anand Water Show, a multimedia fountain show that depicts an episode from the life of Bhagwan Swaminarayan.

**Abhishek Mandap:** This area allows visitors to participate in the Abhishek ritual, where they can pour holy water over the sacred image of Bhagwan Swaminarayan.

**Exhibitions:** Akshardham features several exhibitions, including the Sahaj Anand Water Show, **a cultural boat ride**, and the Hall of Values (Sahaj Anand Multimedia Museum), which educates visitors on Swaminarayan's teachings and values.



Garden of India: The temple complex also includes beautifully landscaped gardens with bronze sculptures depicting India's cultural and spiritual heritage.

### **Spiritual Significance**

Akshardham Temple is not only a place of architectural beauty but also a center for spiritual activities, prayers, and devotion. It emphasizes the principles of non-violence, truth, purity, celibacy, and faith.

### **Awards and Recognition**

Akshardham Temple has received numerous awards and recognitions for its architectural and cultural contributions, including the Guinness World Record for the World's Largest Comprehensive Hindu Temple.

## **G20 leaders endorses Goa Roadmap and 'Travel for LiFE' program to provide big boost to tourism sector**

Ministry of Tourism to launch a national competition on 'Tourism for Tomorrow' to identify best practices and case studies aligned with five priorities of G20 Goa roadmap

The G20 Leaders' Summit in Delhi stands as a testament to India's leadership in fostering global unity and collaboration. The summit witnessed the convergence of the world's most influential leaders, united by a shared vision for the future. Their collective commitment to addressing global challenges reaffirms the spirit of global cooperation.

A significant milestone achieved during the G20 Leaders' Summit in Delhi was the unanimous endorsement of tourism and culture's pivotal role in sustainable socio-economic development and prosperity. The 'G20 Leaders Declaration' adopted during the summit underlined the significance of the 'Goa Roadmap for Tourism as a vehicle for achieving SDGs.

Delhi Declaration provides a new direction for tourism sector with G20 Goa Roadmap outlining the challenges, objectives, opportunities and recommendations for tourism sector to achieve sustainable development goals.

'GOA Roadmap', the key deliverable of India's G20 Tourism Track, is a pioneering initiative that provides a blueprint for sustainable global tourism. Goa roadmap, aligned with the theme of India's G20 Presidency, underscores the role of tourism in society, the economy, and environmental stewardship.

By focusing on the five interconnected priorities identified and endorsed by the G20 Tourism Working Group - Green Tourism, Digitalization, Skills, Tourism MSMEs, and Destination Management - the roadmap offers a comprehensive strategy for nations to align their tourism policies with the United Nations Sustainable Development Goals 2030.



In furtherance of our commitment, the Ministry of Tourism, in collaboration with the United Nations World Tourism Organization (UNWTO), has launched the G20 Tourism and SDG Dashboard. This pioneering initiative will serve as a global repository, showcasing the best practices and case studies of sustainable tourism practices and policies from G20 nations. It aims to be a comprehensive resource, aiding nations and industry stakeholders in their journey towards achieving the SDGs through tourism.

As we move forward, the Ministry of Tourism aims to facilitate the implementation of the GOA Roadmap through education and awareness campaigns to sensitize the State/UT Governments and private stakeholders about incorporating key recommended actions in their operations for the creation of more sustainable, resilient, and inclusive tourism.

The Ministry of Tourism is also launching a national competition on 'Tourism for Tomorrow' to identify best practices and case studies aligned with five priorities of G20 Goa roadmap, which have successfully been implemented by States, Destinations and Industry Stakeholders, which can be replicated and scaled up across the country. The competition will be launched on World Tourism Day on September 27.

In another significant development, the G20 leaders' declaration has further noted the launch of the "Travel for LiFE" initiative, emphasizing its transformative potential in promoting responsible and sustainable tourism.

Travel for LiFE program has been inspired by Hon'ble Prime Minister's vision of LiFE (Lifestyle for Environment), which is extremely relevant for tourism sector. Travel for LiFE nudges all tourists and tourist businesses to take simple actions, which have tremendous signification for environment protection and climate action.

Ministry of Tourism has aligned its programs and initiatives for promoting sustainable tourism under 'Travel for LiFE' program and the campaign will cover the entire tourism ecosystem, motivating and inspiring all actors to contribute in making tourism sector sustainable and responsible. While recognizing the LiFE actions by tourists, the Ministry will also recognize the tourism businesses as TFL certified based on STCI criteria of the Ministry. It will also encourage the tourists and tourism businesses to take a "Travel for LiFE" pledge, which will reflect their commitment for sustainable practices.

Ministry of Tourism is championing a future that is greener, cleaner, and harmonious. It is our mission to ensure that growth is not just robust but also just, equitable, and sustainable for every individual.

The Ministry of Tourism also envisions transforming and promoting the host cities of the G20 Meetings in India into global MICE destinations for national and international meetings. Our commitment is unwavering, and our resolve is strong. We are poised to lead the way in fostering sustainable tourism practices that will echo across the world for years to come.

## INDIA'S FALLING COTTON PRODUCTION



**India's cotton production is facing a serious challenge from the pink bollworm, a pest that damages the crop and reduces the yield. The conventional methods of pest control, such as pesticides and genetically modified seeds, have not been very effective in containing the problem.**

Cotton is an important crop in India that serves multiple purposes. It provides food in the form of cotton seed oil, feeds in the form of protein-rich cotton seed cake, and fiber used in the textile industry.

The growth of cotton production in India from 2000-01 was significantly driven by the adoption of genetically modified (GM) cotton hybrids known as Bt cotton. These hybrids were engineered to resist the American bollworm insect pest, leading to increased yields.

The success of Bt cotton was challenged by the emergence of the pink bollworm (PBW), which began infesting cotton crops in various states. Unlike the American bollworm, PBW is monophagous, primarily feeding on cotton, and it developed resistance to Bt proteins over time.

Traditional insecticides had limited efficacy against PBW, so alternative approaches were explored. One such method is "mating disruption," which involves using artificial pheromones to prevent mating and egg-laying by PBW moths.

Two products, PBKnot and SPLAT, were developed to implement mating disruption. PBKnot uses a dispenser with synthetic pheromone to attract male PBW moths, while SPLAT-PBW is an emulsion formulation delivering the pheromone. These products aim to reduce PBW populations and increase cotton yields.

### **Cotton production in India**

India has historically been the world's largest producer of cotton, accounting for approximately 25% of global cotton output.



India is facing a significant decline in cotton exports during the current financial year. This decline is attributed to multiple factors, including a shift by farmers to more profitable crops like oilseeds and pulses, leading to a drop in cotton production.

## Factors that have contributed to the decline in cotton farming

### Climate Change

Climate change has had a significant impact on cotton farming in several ways.

**Erratic Rainfall Patterns:** Changing climate patterns have led to unpredictable and irregular rainfall, which is detrimental to cotton crops. Cotton requires specific amounts of water at various growth stages, and irregular rainfall can lead to water stress, affecting the crop's yield and quality.

**Extreme Weather Events:** Increasing frequency and intensity of extreme weather events such as droughts, floods, and hurricanes can devastate cotton fields. Floods can damage cotton plants, while droughts can lead to water scarcity and stunted growth.

**Temperature Extremes:** Rising temperatures can also affect cotton crops by altering the flowering and fruiting patterns, making them less productive.

### Pest and Diseases

Cotton is vulnerable to a range of pests and diseases, and several factors have exacerbated this problem.

**Emergence of Resistant Strains:** Over time, pests and diseases have evolved to become more resistant to conventional pesticides and control methods. This has made it increasingly challenging for cotton farmers to manage these threats effectively.

**Monoculture Farming:** Continuous cotton cultivation in the same fields year after year can create favourable conditions for the buildup of pests and diseases. This practice, common in some regions, increases the risk of infestations.

### High Input Costs

The cost of agricultural inputs has risen steadily over the years, impacting the profitability of cotton farming.

**Seeds:** High-quality cotton seeds are essential for a good yield. The cost of purchasing improved cotton varieties has increased, and genetically modified (GM) cotton seeds, which are resistant to certain pests, often come with licensing fees.

**Fertilizers and Pesticides:** The cost of fertilizers and pesticides required to maintain cotton crops has also gone up. Farmers need to invest in these inputs to protect their crops and maintain yields.

**Labour and Machinery:** Labor costs for planting, harvesting, and maintaining cotton crops, as well as machinery expenses, add to the overall input costs.

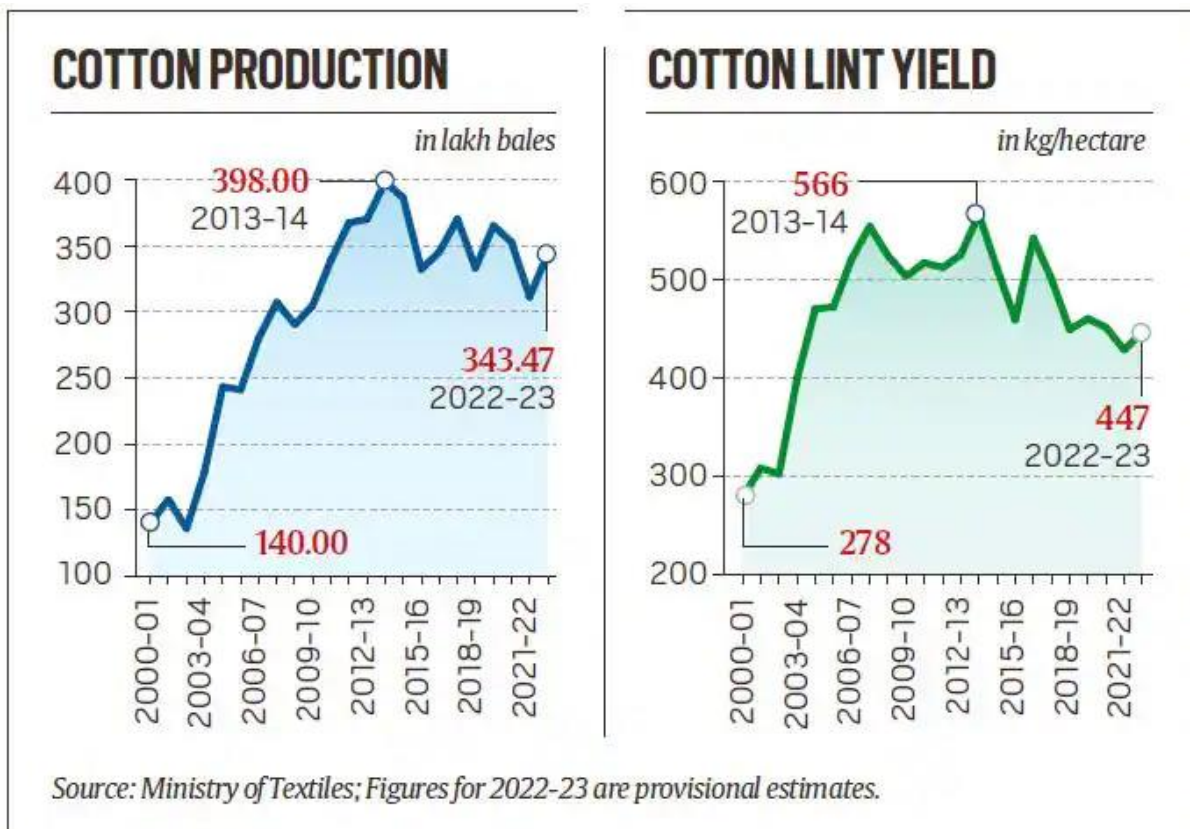
### Competition from Other Crops

Cotton faces competition for land and water resources from other more profitable or less risky crops like pulses and oilseeds.

**Profitability:** Farmers may switch to crops like pulses or oilseeds because they offer higher market prices and returns compared to cotton. These crops are often less resource-intensive and have a shorter growth cycle, reducing the risks associated with cotton farming.

**Drought Resistance:** Some alternative crops may be more resilient to changing climate conditions, making them a more attractive option for farmers in regions prone to water scarcity.

A combination of climate change-related challenges, increased pest and disease pressure, rising input costs, and competition from other crops has contributed to the decline in cotton farming.



### Decline in cotton production has far-reaching implications Textile Industry

The textile industry is a cornerstone of India's economy, employing millions of people and contributing significantly to the country's exports. A decline in domestic cotton production can have adverse effects on this industry.

**Higher Input Costs:** Reduced domestic cotton availability may result in higher cotton prices in the domestic market. This can increase the cost of raw materials for textile manufacturers, potentially leading to reduced competitiveness in the global market.

**Job Losses:** The textile sector is a major employer, especially in rural areas. A decline in cotton production can lead to reduced demand for labour in the cotton farming and ginning sectors, potentially causing job losses and affecting livelihoods in these regions.



**Impact on Exports:** India is a significant exporter of textile and garment products. A drop in cotton production can affect the quantity and quality of cotton available for textile manufacturing, potentially impacting the export potential of the sector.

### Dependency on Imports

As domestic cotton production declines, India becomes more reliant on imported cotton to meet the demand of its textile industry. This dependence on imports can have several consequences.

**Vulnerability to Price Fluctuations:** Global cotton prices can be volatile, influenced by factors such as weather events, international trade policies, and demand-supply dynamics. Relying on imported cotton makes India vulnerable to these price fluctuations, which can affect the cost structure of the textile industry.

**Supply Chain Disruptions:** Imports introduce an element of uncertainty into the supply chain. Disruptions in the global cotton supply chain, such as shipping delays or trade disputes, can impact the timely availability of cotton for Indian textile manufacturers.

### Economic Impact on Cotton Farmers

The decline in cotton production directly affects cotton farmers, many of whom are smallholders. This has several economic and social consequences.

**Reduced Incomes:** Lower cotton yields and profitability can lead to reduced incomes for cotton farmers. This can exacerbate their financial difficulties and lead to debt burdens.

**Rural Poverty:** Cotton farming is a significant source of livelihood in rural areas. A decline in cotton production can contribute to rural poverty and increased vulnerability, as farming households may struggle to meet their basic needs.

**Migration:** Economic hardships in rural areas can drive migration to urban centres in search of alternative employment opportunities, which can strain urban infrastructure and services.

### Steps taken by the government

#### Financial Assistance

**Subsidies:** The government provides subsidies to cotton farmers for essential inputs like seeds, fertilizers, and pesticides. These subsidies aim to reduce the financial burden on farmers and make cotton cultivation more economically viable.

**Minimum Support Price (MSP):** The government sets a minimum support price for cotton, ensuring that farmers receive a fair price for their cotton produce. This price acts as a safety net, protecting farmers from price fluctuations in the market.

**Crop Insurance:** The government offers crop insurance schemes that protect farmers against yield losses due to various factors, including adverse weather conditions, pests, and diseases. This helps farmers manage risks and recover losses in case of crop failure.

**Interest-Free Loans:** In some cases, farmers are provided with interest-free or low-interest loans to finance their cotton farming activities, including purchasing seeds, fertilizers, and machinery.



## Research and Development

**GM Cotton Varieties:** India has invested in the development and promotion of genetically modified (GM) cotton varieties like Bt cotton, which are resistant to the bollworm pest. These varieties reduce the need for chemical pesticides, lowering production costs and minimizing environmental impacts.

**Climate-Resilient Varieties:** Research efforts are focused on developing cotton varieties that are more resilient to the effects of climate change, such as drought-tolerant and heat-resistant strains. These varieties can thrive in adverse weather conditions and provide more stable yields.

**Pest and Disease Management:** Government research institutions work on integrated pest management (IPM) strategies to control cotton pests and diseases sustainably. This includes the development of biological control methods and the promotion of natural predators.

## Irrigation Improvements

**Drip and Sprinkler Irrigation:** The government has promoted modern irrigation techniques such as drip and sprinkler irrigation, which are more water-efficient and help mitigate the impact of erratic rainfall. These methods ensure a consistent water supply to cotton crops.

**Canal Rehabilitation:** Efforts are made to rehabilitate and modernize existing canal systems to ensure efficient water distribution to cotton-growing regions.

**Rainwater Harvesting:** Encouragement and support are given to farmers for rainwater harvesting practices, which can supplement irrigation during dry spells.

## Diversification Promotion

**Crop Rotation:** Farmers are encouraged to practice crop rotation, which involves alternating cotton cultivation with other crops like pulses, oilseeds, or legumes. This reduces the risk of soil depletion and pest buildup, leading to more sustainable and productive farming.

**Awareness Campaigns:** The government conducts awareness campaigns and provides training to farmers about the benefits of diversification. These campaigns aim to shift the mindset of farmers towards exploring alternative crops and improving overall agricultural resilience.

## Challenges persist in the Indian cotton sector

### Climate Change

**Erratic Weather Patterns:** Climate change has led to unpredictable and erratic weather patterns, including irregular rainfall and more frequent extreme weather events like droughts and floods. These conditions pose a significant threat to cotton crops, affecting both yield and quality.

**Temperature Extremes:** Rising temperatures can disrupt the flowering and fruiting stages of cotton plants. High temperatures during these critical phases can lead to poor fruit sets and reduced yields.





**Pest and Disease Outbreaks:** Climate change can create favourable conditions for the proliferation of pests and diseases, making cotton crops more vulnerable. Warmer temperatures may allow pests to thrive year-round, increasing the need for pest management.

### **Fragmented Land Holdings**

**Limited Adoption of Modern Farming Practices:** Small and fragmented land holdings in India make it challenging for farmers to adopt modern and mechanized farming practices. Small plots of land may not justify the investment in expensive machinery, limiting productivity.

**Reduced Economies of Scale:** Smaller land holdings often result in reduced economies of scale. Farmers may struggle to negotiate favourable prices for inputs, and their overall production costs may be higher compared to larger farms.

**Land Degradation:** Intensive cultivation on small land parcels can lead to soil erosion and degradation, further reducing the long-term sustainability of cotton farming.

### **Lack of Awareness**

**Limited Access to Information:** Many cotton farmers, especially in remote or marginalized areas, have limited access to information about the latest agricultural technologies, best practices, and market trends. This lack of awareness can hinder their ability to make informed decisions.

**Traditional Farming Practices:** Some farmers continue to rely on traditional farming practices, unaware of more sustainable and efficient methods that could enhance their crop yields and reduce costs.

### **Weak Infrastructure**

**Inadequate Transportation:** Poor rural infrastructure, including road networks, can hinder the timely transportation of cotton from farms to markets or processing units. This can lead to post-harvest losses and reduced profitability.

**Limited Access to Inputs:** Weak infrastructure can impede farmers' access to agricultural inputs like seeds, fertilizers, and pesticides. Timely availability of these inputs is crucial for the success of cotton farming.

**Market Access:** Farmers in remote areas may face challenges in accessing markets with fair prices for their cotton. Lack of proper marketing infrastructure and intermediaries in the supply chain can lead to lower returns for farmers.

### **Way Forward**

#### **Research and Development Investment**

**Resilient Varieties:** Increased investment in research and development is vital for developing cotton varieties that are not only resistant to pests and diseases but also resilient to the effects of climate change. This includes drought-tolerant and heat-resistant cotton strains.

**Organic and Sustainable Farming:** R&D efforts should also focus on organic and sustainable farming practices that reduce the environmental impact of cotton cultivation, such as promoting natural pest control methods and improving soil health.



## Irrigation Infrastructure

**Modernization:** Investment in irrigation infrastructure, including the modernization of existing canal systems and the promotion of water-efficient technologies like drip and sprinkler irrigation, should be a priority. This will help farmers manage changing rainfall patterns and ensure consistent water availability.

**Rainwater Harvesting:** Encourage the adoption of rainwater harvesting techniques at the farm level, allowing farmers to capture and store rainwater for irrigation during dry spells.

## Diversification Promotion

**Crop Rotation:** Promote crop rotation and intercropping to reduce dependence on cotton as the sole cash crop. Encourage the cultivation of complementary crops like pulses, oilseeds, or legumes, which can improve soil fertility and pest management.

**Market Linkages:** Facilitate access to markets for alternative crops to ensure that farmers have profitable avenues for diversification.

## Financial Assistance Continuation

**Subsidies and Support:** Continue providing financial assistance to cotton farmers in the form of subsidies on essential inputs, minimum support prices, and crop insurance schemes. These measures help farmers cope with input costs and manage risks effectively.

**Credit Access:** Ensure that farmers have access to affordable credit to finance their farming activities, including purchasing inputs, equipment, and adopting new technologies.

## Infrastructure Improvement

**Transportation:** Improve rural road networks and transportation infrastructure to facilitate the timely and cost-effective movement of cotton from farms to markets and processing units. This reduces post-harvest losses and ensures better returns for farmers.

**Access to Inputs:** Strengthen the supply chain for agricultural inputs, making seeds, fertilizers, and pesticides readily available to farmers, especially in remote areas.

**Market Facilities:** Develop market infrastructure in rural areas, including storage facilities and market yards, to create efficient and competitive markets for cotton and other agricultural products.

## Education

**Extension Services:** Expand agricultural extension services to reach more cotton farmers, providing them with knowledge about the latest farming technologies, best practices, and sustainable farming methods.

**Farmer Training:** Conduct training programs and workshops to educate farmers on modern farming techniques, pest management, and water-saving practices.

**Digital Tools:** Utilize digital platforms and mobile apps to disseminate information to farmers, including weather forecasts, market prices, and farming tips.

## WTO DISPUTE SETTLEMENT SYSTEM



The G20 leaders have expressed their commitment to working towards a "fully and well-functioning" dispute settlement system within the World Trade Organization (WTO) by the year 2024. This commitment is a significant development in international trade, as the dispute settlement mechanism of the WTO has faced challenges since the non-functionality of its appellate body in December 2019.

### Key points from the G20 declaration related to the WTO dispute settlement mechanism

The WTO is a Geneva-based international organization with 164 member countries, and it plays a central role in formulating global norms for exports and imports while also serving as a platform for resolving trade disputes among its member states.

The G20 leaders are emphasizing the need for reform within the WTO to enhance its functionality. They are committed to conducting discussions and pursuing reforms in an inclusive member-driven process. Their goal is to establish a fully operational dispute settlement system that is accessible to all WTO members by 2024.

The highest decision-making body of the WTO, known as the Thirteenth Ministerial Conference (MC13), is scheduled to convene in Abu Dhabi in February 2024. The G20 leaders are expressing their commitment to work constructively to achieve positive outcomes at this conference.

The G20 leaders' commitment to revitalize the WTO's dispute settlement system by 2024 is a positive step toward addressing the challenges facing international trade and dispute resolution. The successful functioning of the WTO is seen as crucial for maintaining a stable and predictable global trading system.

## Dispute Settlement System of WTO

The WTO was established in 1995 as the successor to the General Agreement on Tariffs and Trade (GATT). The Dispute Settlement System is a critical component of the global trade regime. It provides a mechanism for resolving disputes among WTO member countries regarding trade-related issues, ensuring that trade rules are followed and trade disputes are settled through a rules-based system. The WTO's dispute settlement



**mechanism has faced challenges since December 2019 due to a non-functional Appellate Body. This has affected the smooth functioning of the WTO's dispute resolution process.**

The two-tier system is a fundamental aspect of the WTO's dispute settlement process. It begins with the establishment of a panel to examine the dispute.

The panel is composed of experts chosen by the disputing parties or, in the absence of a mutually agreed panel, appointed by the WTO's Director-General. Panel reports serve as the initial rulings on the dispute. Parties can appeal these reports to the Appellate Body, which is a standing body of seven members with expertise in trade law.

This two-tier approach ensures that disputes are thoroughly examined and that there is an avenue for reviewing panel decisions.

### **Timelines**

The DSU sets strict timelines for various stages of dispute resolution to ensure that cases are resolved efficiently. These timelines include deadlines for submitting panel requests, panel reports, and appeals to the Appellate Body. Adherence to these timelines is crucial for maintaining the predictability and effectiveness of the dispute settlement process.

### **Transparency**

Transparency is a key principle of the DSU. It ensures that the dispute resolution process is open and accessible to all interested parties, including WTO member countries and the general public.

Reports and submissions made during the dispute proceedings are typically made public, allowing stakeholders to follow the progress of the case. This transparency enhances the credibility and accountability of the dispute settlement system.

### **Binding Decisions**

One of the most significant features of the WTO Dispute Settlement System is that its rulings are binding. When a panel or the Appellate Body issues a report, member countries involved in the dispute are expected to comply with the findings and recommendations. Failure to do so can lead to authorized retaliation or compensation for the aggrieved party.

This binding nature of decisions promotes the rule of law in international trade and encourages compliance with WTO rules.

### **Multilateral Nature**

The DSU ensures that trade disputes are resolved through a multilateral process, meaning that they are settled within the framework of the WTO and involve all relevant parties. This fosters the rule of law in international trade and prevents unilateral actions or trade wars.

It also promotes fairness and equality in dispute resolution, as even smaller and less powerful countries have the opportunity to participate on an equal footing with larger economies.



## Significance of the WTO Dispute Settlement System accurately

### Rules-Based Trade

The **promotion of a rules-based international trading system** is one of the primary objectives of the WTO's dispute settlement mechanism. By providing a structured and rule-bound process for resolving trade disputes, the WTO ensures that trade rules and agreements are upheld and enforced.

This is essential for fostering stability, predictability, and fairness in global trade. It prevents countries from taking unilateral actions that could disrupt international trade and helps maintain a level of order and discipline in the trading system.

### Predictability

The WTO's dispute settlement system **enhances predictability for member countries**. It assures them that trade disputes will be resolved impartially based on established rules and legal principles.

This predictability is vital for businesses and investors, as it reduces the uncertainty and risk associated with international trade. Knowing that trade disputes will be addressed through a transparent and standardized process encourages countries to abide by trade rules and agreements, promoting long-term stability in the global economy.

### Avoiding Trade Wars

An essential function of the WTO's dispute settlement mechanism is its role in preventing trade wars and trade-related conflicts. By providing a platform for countries to resolve disputes peacefully and through legal channels, it offers an alternative to unilateral actions such as imposing tariffs or trade barriers.

This mechanism reduces the likelihood of escalating trade tensions into full-blown trade wars, which can have detrimental effects on the global economy.

### Level Playing Field

The WTO's dispute settlement system ensures that even smaller and less powerful countries have the opportunity to seek the resolution of trade disputes on an equal footing with larger and more influential economies. This promotes fairness and equity in international trade.

It prevents mightier nations from using their economic clout to dominate smaller trading partners and reinforces the principle that all WTO members, regardless of their size or economic strength, must abide by the same set of rules.

### WTO Dispute Settlement System faces several challenges:

**Appellate Body Crisis:** The paralysis of the Appellate Body due to the United States blocking of appointments has been a significant challenge. Without a functioning Appellate Body, the system lacks the ability to issue final rulings, which undermines its credibility and effectiveness in resolving disputes.

**Backlog of Cases:** The growing backlog of cases in the dispute settlement system has led to delays in resolving disputes. This backlog not only affects the parties involved but also



hampers the overall functioning of the WTO. Timely dispute resolution is essential for the stability of international trade.

**Complexity of Cases:** Disputes brought before the WTO have become increasingly complex, involving technical and scientific matters. Resolving these complex disputes demands expertise and resources, this can strain the capacity of the system and make it more challenging to reach satisfactory conclusions.

**Lack of Compliance:** Some countries have been slow to implement or ignore WTO rulings altogether. This non-compliance weakens the enforcement mechanisms of the system and undermines the credibility of the WTO and the dispute settlement process.

**Trade Tensions and Protectionism:** Growing trade tensions and the adoption of protectionist measures by some member countries have made it difficult to find mutually agreeable solutions to disputes. These tensions strain the rules-based trading system and hinder the resolution of trade conflicts.

**Shift Towards Bilateral and Regional Agreements:** The shift away from multilateralism towards bilateral and regional trade agreements has reduced the relevance of the WTO and its dispute settlement system. This shift raises questions about the effectiveness of a global trade organization in today's trade landscape.

**Deadlock in Reform Efforts:** Efforts to reform the WTO and its dispute settlement system have faced deadlock due to differing views among member countries on the necessary changes. This has impeded the organization's ability to adapt to new challenges effectively.

**Transparency Concerns:** Critics argue that the dispute settlement process lacks transparency, making it difficult for non-governmental organizations and the public to understand and assess the decisions and their implications. Enhanced transparency could improve the system's legitimacy.

**Inclusivity and Developing Countries:** Concerns have been raised about whether the dispute settlement system adequately addresses the interests of developing countries. Some argue that the system may disproportionately benefit more powerful economies, potentially exacerbating economic inequalities.

## Way Forward to ensure the continued effectiveness of the WTO Dispute Settlement System

### Reform the Appellate Body

The Appellate Body crisis has been a significant issue within the WTO, leading to paralysis in the dispute settlement process. Reforming the Appellate Body by appointing new members or exploring alternative dispute resolution mechanisms is crucial. This would help restore the mechanism's functionality and ensure that disputes can be resolved effectively within the WTO framework.

### Strengthen Transparency

Transparency is essential for maintaining the legitimacy of the WTO's dispute settlement system. Enhancing transparency in dispute resolution proceedings ensures that member countries have a clear understanding of the process, which can help build trust. This can be

achieved by making dispute documents more accessible, allowing for third-party participation, and ensuring that proceedings are conducted openly and transparently.

### **Capacity Building**

Smaller and developing countries often face challenges in participating effectively in WTO dispute settlement proceedings due to resource constraints and limited legal expertise. Providing capacity-building assistance to these countries can level the playing field and enable them to engage more effectively. This could include training programs, legal support, and financial assistance.

### **Promote Mediation and Negotiation**

Encouraging the use of mediation and negotiation before resorting to formal dispute settlement mechanisms is a proactive approach. It can help prevent disputes from escalating and save time and resources. The WTO can establish guidelines or mechanisms to facilitate mediation and negotiation between disputing parties.

### **Review DSU Provisions**

The Dispute Settlement Understanding (DSU) governs the dispute settlement process within the WTO. It's essential to periodically review and update DSU provisions to ensure they remain relevant and effective in addressing contemporary trade issues and challenges. This may involve clarifying ambiguous language, adapting to new trade practices, and addressing emerging issues such as digital trade and climate-related disputes.

In addition to these steps, WTO members must engage in constructive dialogue and negotiations to find common ground and build consensus on necessary reforms. The WTO is a member-driven organization, and meaningful reform will require cooperation and willingness to adapt to changing global trade dynamics.

Overall, these proposed steps can contribute to revitalizing and strengthening the WTO Dispute Settlement System, making it more responsive to the needs of its member countries and ensuring that it continues to play a vital role in resolving trade disputes on the global stage.

## **International Atomic Energy Agency (IAEA)**





The International Atomic Energy Agency (IAEA) said its experts deployed at the Russia-occupied Zaporizhzhia Nuclear Power Plant reported hearing numerous explosions over the past week, in a possible indication of increased military activity in the region.

International Atomic Energy Agency (IAEA)

The International Atomic Energy Agency (IAEA) is an intergovernmental organization that seeks to promote the peaceful use of nuclear energy and to inhibit its use for any military purpose, including nuclear weapons.

### **Establishment**

It was established in 1957 as an autonomous organization within the United Nations system; though governed by its own founding treaty, the organization reports to both the General Assembly and the Security Council of the United Nations.

### **HQ**

It is headquartered at the UN Office at Vienna, Austria.

### **Creation**

The IAEA was created in response to growing international concern toward nuclear weapons, especially amid rising tensions between the foremost nuclear powers, the United States and the Soviet Union.

### **Mandate**

The IAEA serves as an intergovernmental forum for scientific and technical cooperation on the peaceful use of nuclear technology and nuclear power worldwide.

It maintains several programs that encourage the development of peaceful applications of nuclear energy, science, and technology; provide international safeguards against misuse of nuclear technology and nuclear materials; and promote and implement nuclear safety (including radiation protection) and nuclear security standards.

The organization also conducts research in nuclear science and provides technical support and training in nuclear technology to countries worldwide, particularly in the developing world.

Following the ratification of the Treaty on the Non-Proliferation of Nuclear Weapons in 1968, all non-nuclear powers are required to negotiate a safeguards agreement with the IAEA, which is given the authority to monitor nuclear programs and to inspect nuclear facilities.

### **Missions**

The IAEA is generally described as having three main missions:

Peaceful uses: Promoting the peaceful uses of nuclear energy by its member states,

Safeguards: Implementing safeguards to verify that nuclear energy is not used for military purposes, and





Nuclear safety: Promoting high standards for nuclear safety.

### **Membership**

Any member of the UN or of any of the specialized agencies that signed the statute within 90 days after 26 October 1956 thereby became a charter member of the IAEA upon ratification of the statute.

Other countries, even if not members of the UN or any of the specialized agencies, may be admitted by the General Conference of the IAEA upon recommendation of the Board of Governors.

### **Functions**

The main functions of the IAEA are to: encourage and assist research, development and practical application of atomic energy for peaceful uses throughout the world; establish and administer safeguards designed to ensure that such activity assisted by the Agency is not used to further any military purpose; apply safeguards to relevant activities at the request of Member States; apply, under the Nuclear Non-Proliferation Treaty (NPT) and other international treaties, mandatory comprehensive safeguards in non-nuclear weapon States (NNWS) Parties to such treaties.

In carrying out its functions, the Agency conducts its activities in accordance with the purposes and principles of the UN Charter to promote peace and international cooperation, and in conformity with policies of the United Nations for furthering the establishment of worldwide disarmament through safeguards.

### **Reporting**

The IAEA is an independent international organization that reports annually to the UN General Assembly.

When necessary, the IAEA will report to the UN Security Council in regard to instances of members' noncompliance of safeguard and security obligations.

### **Verification**

Under Safeguards Agreements, IAEA inspectors regularly visit nuclear facilities to verify records maintained by State authorities on the whereabouts of nuclear material under their control, to check IAEA-installed instruments and surveillance equipment, and to confirm physical inventories of nuclear material.

These and other safeguard measures provide independent, international verification that governments are abiding by their commitments to the peaceful use of nuclear technology. A precondition for the implementation of safeguards is a formal safeguards agreement between the Agency and the State.

### **There are four types of inspections:**

Ad Hoc (to verify a state's initial nuclear report)

Routine (the most common inspections which are performed routinely)

Special (supplementary inspections executed in unusual circumstances)



Safeguard Visits (inspections to declared facilities to confirm the safeguards design information)

The Additional Protocol is a more intensive, and voluntary, form of safeguarding, which allows for extended inspections with the most advanced technique. As a legal document, the Additional Protocol aims to provide assurances to both declared and undeclared nuclear sites.

### **Compliance**

In accordance with the Statute and existing practice, the Board is responsible for approving safeguards procedures and Safeguards Agreements, and for general supervision of the Agency's safeguards activities. In a case of non-compliance with a safeguards commitment, the Board of Governors of the IAEA is to call upon the State in question to remedy any outstanding issues; the Board will then decide on its referral to the UN Security Council and General Assembly.

### **Issues and Challenges**

IAEA mission are growing, but its resources are still limited. Raising funds from the private sector or from public-private partnerships can lead to conflict of interest.

It has no authority to act on its own; it relies on the willingness of nations to cooperate, or on a UN mandate. Therefore, the agency enjoys only "uneven authority".

Non-cooperation from NPT non-signatory nuclear powered countries such as North Korea, Israel makes it almost impossible for the agency to monitor nuclear activities.

Nuclear Suppliers Group (NSG) is a multilateral export control regime that seeks to prevent nuclear proliferation by controlling the export of materials, equipment and technology that can be used to manufacture nuclear weapons. It was founded in response to Indian nuclear test in 1974.

The Non-Proliferation Treaty (NPT) is an international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy, and to further the goal of achieving complete nuclear disarmament. India is neither a signatory to NPT nor a member of NSG.

IAEA has been accused of restricting the transfer of nuclear know-how to developing countries, hindering their social and economic development citing its statute as the reason behind this restriction

IAEA response to Fukushima nuclear disaster was highly criticised as the agency failed to play a proactive role in nuclear safety after witnessing Chernobyl.

### **India and IAEA**

India is a founding member of the IAEA.

Presently, 26 Indian nuclear facilities are under this international nuclear energy watchdog.

India is actively contributing to the work of IAEA and assisting other countries in developing aspects of nuclear science.



India signed the Comprehensive Safeguards Agreement (CSA) and Additional Protocol (AP) with the IAEA in 2009 to send a strong signal to the international community that it is a “serious and responsible” nuclear weapons state amid its keen to become a member of NSG.

IAEA can assist India to internationalise its Indigenous technologies developed by the Bhabha Atomic Research Centre, such as Bharat Kavach, a carbon nanotube-based bullet proof jacket, and Bhabhatron, a cobalt therapy machine for treating cancer, to other countries.

Comprehensive Safeguards agreement: IAEA inspectors regularly visit declared nuclear facilities to verify records maintained by State authorities on the whereabouts of nuclear material under their control.

Additional Protocol: It is a more intensive, and voluntary form of safeguarding, which allows for extended inspections with the most advanced technique. This legal document, aims to provide assurances to both declared and undeclared nuclear sites.