



Samudra Manthan – National Offshore Exploration Scheme

Churning the Ocean for Energy

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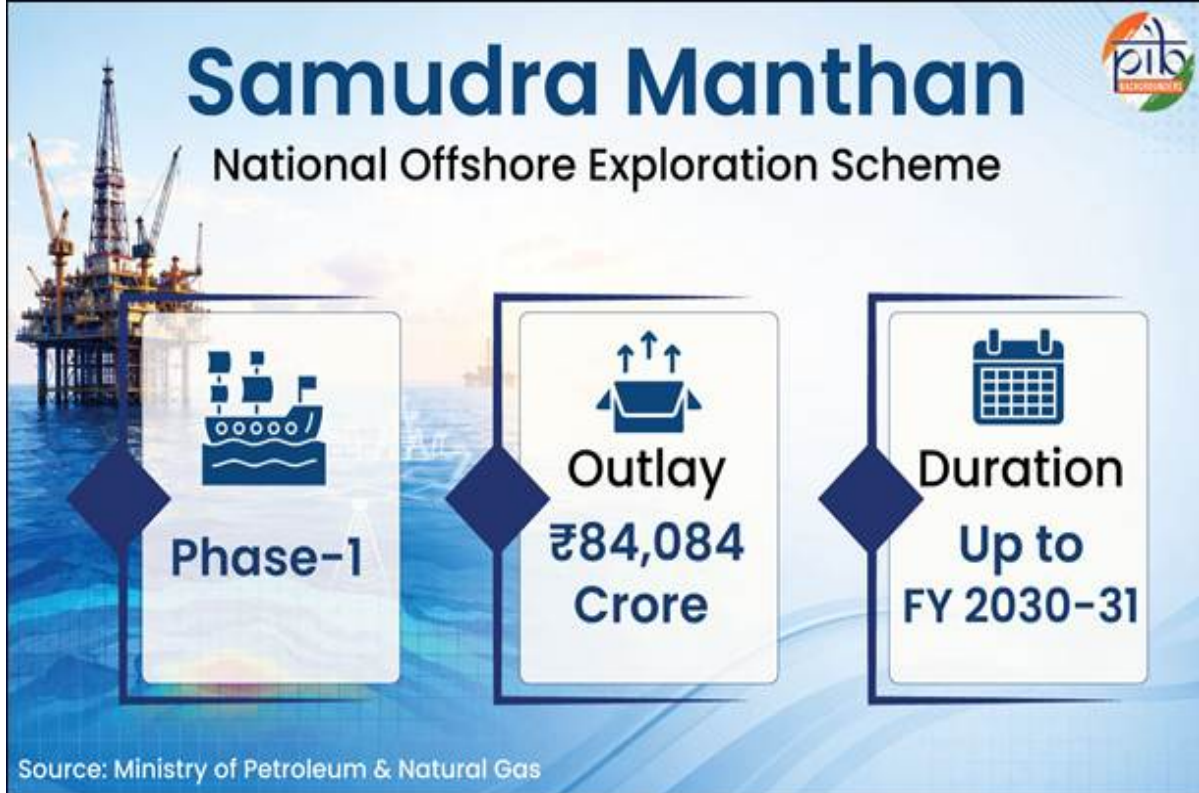
Samudra Manthan marks a decisive step in India's journey towards energy security and self-reliance. With a Phase-I outlay of ₹84,084 crore up to FY 2030–31, the scheme is designed to unlock India's vast offshore hydrocarbon potential. It focuses on accelerating exploration, deploying modern technology, creating shared infrastructure, and strengthening domestic manufacturing. It aims to add over 600 MMTOE of hydrocarbon reserves, raise domestic production, reduce import dependence, and build a globally competitive offshore energy ecosystem.

A New Chapter in Offshore Exploration

Energy powers every aspect of modern life. It fuels homes, farms, industries, transport, and the wider economy. As India continues its rapid growth, ensuring a reliable, affordable, and secure energy supply has become a national priority. While the country's energy needs continue to rise, a significant share of its crude oil and natural gas requirements is met through imports. Expanding domestic production is therefore essential to strengthen energy security, reduce import dependence, and conserve valuable foreign exchange.

Among the country's key energy resources are hydrocarbons—organic compounds made of hydrogen and carbon. They occur deep below the land and the seabed. Crude oil and natural gas are the widely used hydrocarbons. They provide the raw material for petrol, diesel, LPG, petrochemicals, fertilisers, and numerous industrial products.

India's offshore basins hold vast untapped hydrocarbon potential. A basin is a large natural depression in the earth where hydrocarbons collect. Unlocking these resources requires modern exploration, reliable geological data, advanced drilling capabilities, and a strong domestic supply chain. To accelerate this effort, **Samudra Manthan – the National Offshore Exploration Scheme** has been approved on 31 July 2026. With a Phase-I outlay of ₹84,084 crore up to FY 2030-31, it aims to boost the hydrocarbon exploration and production sector.



Why The Seas Hold the Key for India

India is the **world's third-largest consumer of crude oil**. Its annual import bill is nearly **USD 144 billion**, or about **₹13 lakh crore**. Recent global events have shown how vital uninterrupted energy access is. Higher domestic output has thus become critical for a rapidly growing economy.

The Offshore Opportunity

Much of India's future oil and gas potential lies offshore. Deepwater and ultra-deepwater basins are sea zones with very high-water depth. India's eastern and western offshore basins extend to water depths of up to 3,000 metres. They are estimated to hold over **5,600 MMTOE** (Million Metric Tonnes of Oil Equivalent) of hydrocarbon potential. Recent finds in the Cauvery, Mahanadi, and Andaman basins have reinforced this promise.



ONGC's Fixed Offshore Platform

The Challenge of Deepwater Exploration

Exploration is a costly and patient activity. Moving from the award of an exploration block to commercial production typically takes 5–10 years. A single deepwater exploratory well costs about USD 125–150 million. Such high stakes can discourage offshore exploration.

There is another reason why constant search matters. Existing fields witness a natural decline of around 6–7 percent every year. New discoveries are needed simply to sustain current output. Sustained exploration thus serves as a path to lasting self-reliance in energy.

Inside the Samudra Manthan Mission

Samudra Manthan marks the transition from policy reform to mission-mode implementation. The scheme adopts a risk-sharing approach to attract **sustained investment** into frontier waters. It seeks to **de-risk offshore ventures** and encourage private capital, building enduring national capability across the value chain. In doing so, it converts a decade of reform into concrete action at sea.



Components of Samudra Manthan

Offshore exploration depends on reliable data, advanced technology, modern infrastructure, and a resilient supply chain. Samudra Manthan brings these elements together through four components.

1. Seismic Data Acquisition, Processing, and Interpretation

Limited offshore seismic coverage restricted the identification of drill-ready oil and gas prospects. The scheme funds large-scale **2D and 3D seismic surveys** with an outlay of **₹28,534 crore**. Advanced technology and Artificial Intelligence will speed up processing and interpretation. Older data in the National Data Repository will also be re-processed with modern tools.

2. Accelerated Offshore Exploration

High cost and long gestation make deepwater drilling a risky venture. To share this risk, the scheme allocates **₹43,200 crore** for drilling 60 deepwater and ultra-deepwater wells. Financial support covers up to **50 percent** of eligible drilling cost, or **₹675 crore** per well, whichever is lower. The scheme is open to both public and private Exploration and Production (E&P) operators to increase oil and gas reserves. It will accelerate reserve accretion and unlock India's deepwater potential.

3. Common Offshore Infrastructure

Many offshore discoveries remain unproduced due to costly infrastructure, particularly in the Mahanadi and Kutch basins. The scheme provides ₹10,000 crore for shared production and evacuation facilities in select basins. Common infrastructure lowers project costs and turns idle finds into producing fields.

4. Oil and Gas Manufacturing and Services Zone

Low domestic manufacturing increases exploration costs, import dependence, and foreign exchange outflow. In view of this, an integrated Oil and Gas Manufacturing and Services Zone will be established with ₹2,000 crore. It will build domestic capabilities in manufacturing, repair, warehousing, engineering, and services. This directly advances Make in India across the supply chain. An amount of ₹350 crore supports monitoring, digital interventions, evaluation, human resources, awareness and outreach, events, and media.

Component-Wise Allocation

S. No.	Component	Amount (₹ Crore)
1	Offshore data acquisition	28,534
1A	2D seismic data acquisition for basin-wide coverage	12,000
1B	3D seismic data acquisition (and other techniques)	12,534
1C	NDR data re-processing and AI tools implementation	4,000
2	Offshore exploration and infrastructure-led production	55,200
2A	Offshore exploration acceleration	43,200
2B	Infrastructure-led deepwater production and exploration	10,000
2C	Development of oil and gas manufacturing and services zones	2,000
3	Monitoring and support activities	350
Total		84,084

An Integrated Enabling Ecosystem

Beyond funding, the scheme creates a supportive environment for the entire value chain. Dedicated provisions cover:

- Digital programme management for transparent and efficient implementation
- Capacity building for professionals across the sector
- Adoption of cutting-edge technologies
- Continuous stakeholder engagement

- International outreach to attract global partners

What Samudra Manthan Will Deliver

The scheme is designed to create value for the economy and future generations. Subject to exploration success, it is expected to bring wide-ranging gains:

- **Larger Reserves:** Increase of over 600 MMTOE of hydrocarbon reserves, expanding the resource base from 1.6 billion to 2.2 billion Tonnes of Oil Equivalent (TOE).
- **Higher Output:** Annual domestic production is targeted to rise from around 62 MMTOE to 80 MMTOE. Incremental production of 10–15 MMTOE is expected, with a peak potential of 20 MMTOE.
- **Lower Import Bill:** Additional output can cut crude imports by nearly ₹1 lakh crore every year, generating significant foreign exchange savings.
- **Investment and Growth:** The scheme will promote investments across the value chain and drive strong GDP expansion.
- **Employment:** Large-scale jobs will be created in exploration, production, and allied activities.
- **Indigenous Strength:** Domestic manufacturing will deepen under Make in India and Atmanirbhar Bharat, fostering a globally competitive ecosystem for offshore technologies.

Together, these outcomes strengthen the country's energy resilience. They also nurture technological leadership and long-term opportunities for industry and innovation.

A Series of Reforms

In recent years, India has steadily rebuilt its hydrocarbon exploration and production ecosystem. A series of structural reforms has made the sector open, transparent, and investor-friendly.

- **Opening Up Offshore Acreage:** More than 99 percent of the earlier “No-Go” areas have been removed. Over one million square kilometres of the Exclusive Economic Zone is now available for exploration. This zone is the sea area where India holds rights over natural resources.
- **New Licensing Framework:** The Hydrocarbon Exploration and Licensing Policy (HELP) was launched in 2016. Under it the Open Acreage Licensing Programme (OALP) was launched which replaced the old nomination-based approach. HELP provides lower levies, uniform licensing, revenue sharing, and incentives to promote hydrocarbon exploration and early production.
- **Simpler Contracts:** India moved from Production Sharing Contracts (PSC) to Revenue Sharing Contracts (RSC) in 2016. In PSC, profits were shared between the Government and the contractor after recovery of cost. In RSC, the contractor bears all exploration risks, production and development costs in return for its stipulated share of revenue. Thus, this fiscal framework became simpler and more transparent, with less administrative intervention.
- **Modern Law:** The Oilfields (Regulation and Development) Amendment Act, 2025 provided contractual stability and stronger dispute resolution. It recognised integrated petroleum operations and created a contemporary regulatory architecture.
- **Enabling Rules:** The Petroleum and Natural Gas Rules, 2025 operationalised these changes. They promote ease of doing business and streamline the administration of petroleum leases.
- **Level Playing Field:** The composition and mandate of the Empowered Committee of Secretaries were standardised across all contract regimes. Every operator now enjoys consistent treatment, whenever their contract was signed.
- **Sharper Focus:** The performance parameters of Oil and Natural Gas Corporation (ONGC) and Oil India were reoriented towards exploration. This reinforces the national commitment to expanding the domestic resource base.

Good exploration begins with good data. **Seismic surveys** send sound waves into the earth to map rock layers below the seabed. India has made sustained investments in such geoscientific knowledge through several national initiatives. These include **Mission Anveshan, the National Seismic Programme, the Extended Continental Shelf Survey, the National Data Repository, and the Hydrocarbon Resource Assessment Study**. Together, these have created one of the world's most comprehensive geoscientific databases.

The reforms have inspired visible confidence. Nearly 81 percent of active exploration acreage has been awarded after 2014. Under OALP, 172 blocks covering nearly 3.8 lakh square kilometres have been awarded. Committed investments in these blocks exceed USD 4.3 billion. Activity on the ground has gathered pace as well. During FY 2025-26 alone, around 674 wells were drilled. Five new discoveries were made and seven discoveries were monetised.

A New Chapter Begins in the Mahanadi Basin

The hydrocarbon exploration reform journey reached a proud moment on 25 July 2026. Drilling of the first appraisal well commenced in the Mahanadi Offshore Basin. An appraisal well is drilled to further evaluate the quality and commercial value of the hydrocarbon discovery. The programme will deploy world-class deepwater drilling technology. The MN-DWN18-1-HD well is the first of four planned deepwater wells. These wells will systematically evaluate one of India's most prospective offshore basins.

The spudding (start of drilling a new well) marks the beginning of one of India's most challenging deepwater campaigns. Every prospect evaluated and every well drilled will take the nation closer to self-reliance.

Towards a Secure Energy Future

India stands at the threshold of a promising energy era. The nation's energy future doesn't rest on a single discovery. It is being built through sustained reform, science, and the dedication of thousands of geologists, engineers, and offshore professionals.

Samudra Manthan blends data, shared risk, common facilities, and homegrown capability into one mission. As the churn of the ocean begins, it carries the aspirations of a rising nation. Each step taken beneath the waves brings the country closer to a secure and self-reliant tomorrow.

References

Ministry of Petroleum and Natural Gas:

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<https://www.pib.gov.in/PressReleasePage.aspx?PRID=2202520®=3&lang=1>

<https://x.com/PetroleumMin/status/2083261752230154401>

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