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## The Big Picture: Strategic Oil Reserves and Energy Security

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India, in the times of volatility of crude oil prices, has decided to take advantage of the low oil prices in **major producing centres in Saudi Arabia** and the UAE to top up its strategic oil reserves created to meet the emergency in times of exigencies. India is the world's third largest crude oil importer having an existing storage capacity of 5.3 million tons (MT) at:

- Visakhapatnam (1.3 million tons)
- Mangalore (1.5 million tons)
- Padur (2.5 million tons).

## Global Strategic Petroleum Reserves (GSPRs)

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- **Global strategic petroleum reserves (GSPR)** refer to crude oil inventories (or stockpiles) held by the government of a particular country, as well as private industry, to safeguard the economy and help maintain national security during an energy crisis.
- Several countries have agreements to share their stockpiles with other countries in the event of an emergency. For example-
  - The United States and Israel agreement
  - The France, Germany and Italy agreement
  - The Japan, New Zealand and South Korea agreement
- Biggest Global Strategic Petroleum Reserves in the world:
  - The United States- 714 million barrels
  - China- 475 million barrels
  - Japan- 324 million barrels

## Strategic Petroleum Reserves In India

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- **Strategic petroleum reserves** are huge stockpiles of crude oil to deal with any crude oil-related crisis like the risk of supply disruption from natural disasters, war or other calamities.
- Strategic petroleum reserves in India are in a position to meet 9.5 days of its oil needs to which 11.57 more days will be added with the addition of two new reserves.

Thus, a total of 22 days (10+12) of oil consumption will be made available by ISPR.
- Indian refiners also maintain crude oil storage (industrial stock) of 65 days. Thus, a total of 87 days (22 by ISPL + 65 by Indian refiners) of oil consumption will be made available in India after completion of Phase II by ISPR. This will be very close to 90 days mandate by the IEA.
- The construction of the other two reserves is projected at Chandikhole (Odisha) (4 MT) and Padur (2.5 MT).
- The construction of these **Strategic Crude Oil Storage facilities** in India is being managed by **Indian Strategic Petroleum Reserves Limited (ISPRL)** under the **Ministry of Petroleum and Natural Gas**.
- The concept of dedicated strategic reserves was first mooted in 1973 in the US, after the first oil crisis.
- The concept of massive caverns deep below the surface of the earth has been traditionally marketed as an energy security measure that can be a defence against shortage of oil supply in future due to an attack or invasion.

- Underground storage is, by far the most economic method of storing petroleum products because the underground facility rules out the requirement of large swathes of land, ensures less evaporation and, since the caverns are built much below the sea level, it is easy to discharge crude into them from ships.

## Need of Strategic Petroleum Reserves in India

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- India still needs to import 83% crude oil of its requirement which increases the import bill of India which further widens the **Current Account Deficit (CAD)** of the country.
  - 86% energy of the country is dependent on oil with nearly 5 million barrels of oil consumption in a day.
- **The fluctuation in the price of crude oil in the international market** leads to a dire need for India to make petroleum reserves to ensure the country's energy security and avoid monetary loss.
  - The IEA predicts that by 2020, India could well be the largest oil importer, increasing the country's vulnerability to threats of physical supply disruptions leading to sharp price fluctuations.
- **The current capacity of this is not sufficient** to tackle any unpredicted event that occurs in the international crude market.

## Current Account Deficit

It is a measurement of a country's trade where the value of the goods and services it imports exceeds the value of the products it exports. The current account includes net income, such as interest and dividends, and transfers, such as foreign aid.

## Government Initiatives

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- The government of India has approved fiscal incentives to attract investments and technology to improve recovery from oil fields which is expected to lead to hydrocarbon production worth Rs 50 lakh crore in the next twenty years.
- India is working to establish a natural gas trading exchange as part of a shift away from a reliance on crude oil based products which are blamed for much of the country's pollution problem.
- India wants to develop a transparent market for natural gas where the price is determined on an exchange. The aim is to increase the use of natural gas in India's total energy mix from 6.5 percent to 15 percent between 2028 and 2030.
- The Oil Ministry plans to set up bio-CNG (compressed natural gas) plants and allied infrastructure to promote the use of clean fuel.

## Way Forward

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- The demand is to look for assets of energy sources present abroad;  
India should buy and store the oil in the host countries as Indian assets and retrieve when required; like China.
- India should distribute its oil contracts in several countries so as to avoid the monopoly of any one region. For example, currently India is importing most of the oil from the Gulf region.
- The oil is the central source of energy but is limited, therefore alternative sources need to be looked upon.
- Indian oil imported in the ships consisting of 90% foreign ships; is also an issue to be looked upon. India needs to acquire its own ships to transport oil.