

General Studies-2; Topic: Government Policies and Interventions for Development in various sectors and Issues arising out of their Design and Implementation.

Gas-based Economy

Introduction

India plans to develop a gas-based economy with the cleaner fuel gradually becoming the mainstay of country's energy security needs.

Present status

- Natural gas is either produced domestically or imported as LNG.
- It is produced in Assam, Bombay High, Krishna Godavari basin and the Cauvery basin.
- The domestic gas production has complete marketing and pricing freedom.
- **Gas comprises about 6.2% of India's primary energy mix**, far behind the global average of 24%.
- The government plans to increase this share to 15% by 2030.
- India's gas demand is expected to be driven by fertiliser, power, city gas distribution, and steel sectors.

Recent Initiatives

- The Government has taken transformative reforms in the upstream sector.
- The **Open Acreage Licensing Policy (OALP)** which is investor driven acreage auction process, has increased substantial acreages in the country.
- Since 2017 more than 1.6 lakh sq.km area under 105 exploration blocks have been allocated.
- This will ensure sustainability of the domestic production in long run.
- Investment of more than Rs. 70,000 crore is being made in the East coast.
- The Government has taken steps towards **connecting the north-east via natural gas pipelines**.
- The government has been continuously encouraging large-scale investments in gas production, transportation, and import terminals.

Advantages of Gas-based Economy

- Natural gas, predominantly methane, is a **cheap and environment-friendly fuel**.
- It has very low emission of particulate matter.
- The economic advantage of gas over other conventional fuels is that it is 40 per cent cheaper than liquefied petroleum gas (LPG).
- The additional savings in, say, taxi driver bills, which, if used in productive areas such as education of children, will pave way for a **faster socio-economic development**.

International practice

- The latest report released by an international agency IEA shows that the electricity produced by natural gas worldwide was more than that of coal for the first time ever.
- The whole world is rapidly moving towards gas-based power generation.

Natural Gas Marketing Reforms

- Recently, the Cabinet Committee on Economic Affairs approved 'Natural Gas Marketing Reforms', taking a significant step to move towards gas based economy.
- The policy aims to provide standard procedure for sale of natural gas in a transparent and competitive manner.
- This will bring uniformity in the bidding process across various contractual regimes.

- The whole eco-system of policies relating to production, infrastructure and marketing of natural gas has been made more transparent with a focus on ease of doing business.
- The move is aimed at wooing investors in the exploration and production of natural gas and encouraging its use.

Impact of new reforms

- These reforms will prove very significant for Atmanirbhar Bharat by encouraging investments in the domestic production of natural gas and reducing import dependence.
- This will help reduce the cost of urea manufacturing, power generation and benefit compressed natural gas (CNG) and piped natural gas (PNG) consumers
- Gas production from East coast will meet the increasing energy needs of the country.
- The increased gas production consumption will help in improvement of environment.
- It will also help in creating employment opportunities in the gas consuming sectors including MSMEs.
- The domestic production will further help in increasing investment in the downstream industries such as City Gas Distribution and related industries.
- Now the domestic gas production has complete marketing and pricing freedom.
- These reforms will prove to be another milestone in moving towards a gas based economy by encouraging investments.

Concerns/ Challenges

- Issues with the implementation of reforms, especially at provincial and local levels;
- Competition of renewables and coal.
- The competition of low-priced coal, especially in the power sector, remains a major impediment for India to fulfil its gas target.
- India does not restrict the utilisation of coal in its primary energy mix, as it is done in many other countries.
- The recent decision to remove the coal green tax (i.e Coal Cess) plays in favour of this fuel.

Way Forward

- Need for **aggressive policy-driven actions** including mandates to phase out old coal-consuming plants.
- Imposing environmental taxation or carbon prices.
- Progressing in energy market reforms.
- Reduce the dominance of polluting and carbon-intensive fuels
- Scaling up the gas share require **policy effort from the government on both energy supply and demand sides.**

Conclusion

- Transition towards a gas-based economy can be instrumental in supporting the Indian ambition of transforming its energy system towards more efficiency and sustainability.