

FAQs

Methane Alert and Response System

Q. Why is this in News?

- A. Recently the **United Nations (UN)** has decided to set up a **satellite-based** monitoring system “**MARS: Methane Alert and Response System**” for tracking **methane emissions** and alerting governments and corporations to respond.
- The MARS initiative is intended to **strengthen the efforts to cut methane emissions.**

Q. What is Methane Alert and Response System (MARS)?

A.

▪ About:

- The **MARS** was launched at the **27th Conference of Parties (COP27)** to the **United Nations Framework Convention on Climate Change** in Sharm El-Sheikh, Egypt.
 - The data-to-action platform was set up as part of the **UN Environment Programme’s (UNEP) International Methane Emissions Observatory (IMEO)** strategy to get **policy-relevant data** into the right hands for emissions mitigation.
 - The system will be the **first publicly available global system** to connect methane detection to notification processes transparently.
- #### ▪ Objectives:
- MARS will integrate data from a large number of **existing and future satellites** that have the ability to **detect methane emission events** anywhere in the world, and send out notifications to the relevant stakeholders to act on it.
 - MARS will **track the large point emission sources**, mainly in the **fossil fuel** industry, but with time, would be able to detect emissions from **coal**, waste, livestock and rice fields as well.

Q. Why do we Need to Cut Methane Emissions?

A.

▪ About Methane:

- Methane is a **colourless** and **odourless** gas that occurs abundantly in nature and as a product of certain human activities.
- Methane is the **simplest member of the paraffin series of hydrocarbons** and is among the most potent of the **greenhouse gases.**

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▪ Concerns Regarding Methane:

- Methane is the **second-most common of the six major greenhouse gases**, but is **far more dangerous than carbon dioxide** in its potential to cause global warming.
- **Accounting for about 17%** of the current global greenhouse gas emissions, methane is blamed for having **caused at least 25%- 30% of temperature rise** since the pre-industrial times.
- It accounts for a small portion of human-induced greenhouse gas emissions compared to carbon dioxide. But it is thought to be **80 times more efficient than carbon dioxide at trapping atmospheric heat** in the 20 years following its release.

Q. What are the Initiatives to Cut Methane Emission?

A.

▪ Global:

○ Global Methane Pledge:

- At the Glasgow climate conference (UNFCCC COP 26) in 2021, nearly 100 countries had come together in a voluntary pledge, referred to as the **Global Methane Pledge**, to cut methane emissions by **at least 30% by 2030 from the 2020 levels**.

- More countries have joined in this initiative since then, bringing the total to nearly 130.
- A 30% reduction in methane emissions by 2030 is expected to result in avoiding 0.2 degree rise in temperature by the year 2050, and is considered absolutely essential in the global efforts to keep the temperature increase below the **1.5 degree Celsius target**.

○ Global Methane Initiative (GMI):

- It is an **international public-private partnership** focused on **reducing barriers** to the recovery and use of methane as a **clean energy source**.
- GMI provides **technical support to deploy methane-to-energy projects** around the world that enable Partner Countries to launch methane recovery and use projects.
- **India is a partner country**.

▪ National:

○ 'Harit Dhara' (HD):

- **Indian Council of Agricultural Research (ICAR)** has developed an anti-methanogenic feed supplement '**Harit Dhara**', which can cut down cattle methane emissions by 17-20% and can also result in higher milk production.

○ India Greenhouse Gas Program:

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- The India GHG Program led by **World Resources Institute (WRI) India** (non-profit organization), **Confederation of Indian Industry (CII)** and **The Energy and Resources Institute (TERI)** is an industry-led voluntary framework to measure and manage greenhouse gas emissions.
- The programme builds **comprehensive measurement and management strategies** to reduce emissions and drive more profitable, competitive and sustainable businesses and organisations in India.
- **National Action Plan on Climate Change (NAPCC):**
- **NAPCC** was launched in 2008 which aims at **creating awareness** among the representatives of the public, different agencies of the government, scientists, industry and the communities on the threat posed by climate change and the steps to counter it.

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