

The Methane Alert and Response System (MARS)

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In news– In keeping with the relatively new focus on cutting methane emissions, the UN has decided to set up MARS, a satellite-based monitoring system for tracking it and alerting governments and corporations to respond.

What is the Methane Alert and Response System (MARS)?

- 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.
- At the Glasgow climate conference in 2021, nearly 100 countries had come together in a voluntary pledge – now referred to as the **Global Methane Pledge – to cut methane emissions by at least 30 per cent by 2030 from the 2020 levels**. More countries have joined in this initiative since then, bringing the total to nearly 130.
- A 30 per cent 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.
- The **MARS initiative** is intended to strengthen these efforts. **It would feed into the recently formed International Methane Emissions Observatory of the UN Environment Programme.**
- To start with, **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.

Do you know?

- **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 per cent of the current global greenhouse gas emissions**, methane is blamed for having caused at least 25 to 30 per cent of temperature rise since the pre-industrial times.
- However, unlike carbon dioxide, methane is largely a sectoral gas, and there are only a few sources of emission.
- It is possible, therefore, to cut down on methane emissions without having widespread impact on the economy.
- Because its global warming potential is about 80 times that of carbon dioxide, a reduction in methane emissions also brings big benefits in a short time.

Note:

- Launched at the G20 Summit, the International Methane Emissions Observatory (IMEO) is a data-driven, action-focused **initiative by the UN Environment Programme (UNEP) with support from the European Commission** to catalyse dramatic reduction of methane emissions, starting with the energy sector.
- It is a project which tackles the problem of methane emissions by collecting, integrating, and reconciling methane data from different sources, including scientific measurement studies, satellites, industry reporting through the Oil and Gas Methane Partnership 2.0, and national inventories.
- IMEO creates a public global dataset of empirically verified methane emissions, with an initial focus on fossil fuel sources, and interconnects this data with

actions on research, reporting, and regulation.

- IMEO serves as an implementing vehicle for the Global Methane Pledge.