



News Analysis (08 May, 2021)

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Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions

Why in News

Recently, a report, titled **Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions** suggested that the world needs to dramatically cut methane emissions to avoid the worst of climate change.

The report was released by the Climate and Clean Air Coalition and the United Nations Environment Programme (UNEP).

Methane

- **About:**

- Methane is gas that is found in small quantities in Earth's atmosphere. **Methane is the simplest hydrocarbon**, consisting of one carbon atom and four hydrogen atoms (CH₄). **Methane is a powerful greenhouse gas**. It is **flammable, and is used as a fuel worldwide**.
- Methane is **produced by the breakdown or decay of organic material** and can be **introduced into the atmosphere by either natural processes** – such as the decay of plant material in wetlands, the seepage of gas from underground deposits or the digestion of food by cattle – **or human activities** – such as oil and gas production, rice farming or waste management.

- **Impact of Methane:**

- Methane is **84 times more potent than carbon and doesn't last as long in the atmosphere before it breaks down**. This makes it a critical target for reducing global warming more quickly while simultaneously working to reduce other greenhouse gases.
- It is **responsible for creating ground-level ozone**, a dangerous air pollutant.

Key Points

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- **Current Situation:**
 - Human-caused **methane emissions are increasing faster currently** than at any other time since record keeping began in the 1980s.
 - **Carbon dioxide levels have dropped** during the Covid-19 pandemic. However, **methane in the atmosphere reached record levels last year**.
 - This is a cause of concern as it was **responsible for about 30% of warming since pre-industrial times**.
 - **Reducing Methane Emissions from Major Sources:**
 - **Fossil Fuel:**
 - **Oil and gas extraction**, processing and distribution accounted for 23% of methane emissions in the fossil fuel sector. **Coal mining** accounted for 12% of emissions.
 - Fossil fuel industry had the **greatest potential for low-cost methane cuts**, up to 80% of measures in the oil and gas industry could be implemented at negative or low cost.
 - About 60% of methane cuts in this sector could make money as **reducing leaks would make more gas available for sale**.
 - **Waste:**
 - **Landfills and wastewater** made up about 20% of emissions in the waste sector.
 - The waste sector could cut its methane emissions by **improving the disposal of sewage around the world**.
 - **Agriculture:**
 - In the agricultural sector, **livestock emissions** from manure and enteric fermentation constituted for roughly 32% and rice cultivation 8% of emissions.
 - Three behavioural changes — **reducing food waste and loss, improving livestock management and adopting healthy diets** (vegetarian or with a lower meat and dairy content) — could reduce methane emissions by 65–80 million tonnes per year over the next few decades.

- **Region-wise Emission Reduction Potential:**
 - **Europe:**
Greatest potential to curb methane emissions from **farming, fossil fuel operations and waste management.**
The European Commission had adopted the **European Union Methane Strategy.**
 - **India:**
Greatest potential to reduce methane emissions in the **waste sector.**
 - **China:**
Mitigation potential was best in **coal production and livestock.**
 - **Africa:**
Its potential to reduce methane emission was in **livestock, followed by oil and gas.**
- **Need and Benefits:**
 - Human-caused **methane emissions must be cut by 45%** to avoid the worst effects of climate change.
 - Such a cut would **prevent a rise in global warming by up to 0.3 degrees Celsius by 2045.** It would also **prevent 260,000 premature deaths, 775,000 asthma-related hospital visits** annually, as well as **25 million tonnes of crop losses.**
 - However, **cutting methane emissions can rapidly reduce the rate of warming in the near-term** as the gas broke down quickly.

Related Indian Initiatives

- **Seaweed-Based Animal Feed:**
Central Salt & Marine Chemical Research Institute (CSMCRI) in collaboration with the country's three leading institutes developed a seaweed-based animal feed additive formulation that **aims to reduce methane emissions from cattle and also boost immunity of cattle and poultry.**
- **India Greenhouse Gas Program:**
 - The India GHG Program led by 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:**
The **National Action Plan on Climate Change (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.

- **Bharat Stage-VI Norms:**

India shifted from **Bharat Stage-IV (BS-IV) to Bharat Stage-VI (BS-VI)** emission norms.

Climate and Clean Air Coalition

Launched in 2019, It is a **voluntary partnership** of governments, intergovernmental organizations, businesses, scientific institutions and civil society organizations **committed to protecting the climate and improving air quality through actions** to reduce short-lived climate pollutants.

India is a member of the coalition.

United Nations Environment Programme

- **Launch:**

The UNEP is a leading global environmental authority **established on 5th june 1972**.

- **Functions:**

It **sets the global environmental agenda, promotes the sustainable development** within the **United Nations** system, and serves as an authoritative advocate for global environment protection.

- **Major Reports:**

- **Major Campaigns:**

Beat Pollution, UN75, **World Environment Day**, Wild for Life.

- **Headquarters:**

Nairobi, Kenya.

Source: DTE

G7 Foreign Ministers' Meet

Why in News

Recently, Foreign Ministers from the **Group of Seven (G7) countries (USA, UK, Canada, France, Germany, Italy and Japan)** held a meeting in London, UK.

The **47th G7 Summit** will be held in **June 2021**. The **UK** is the **host country**.

Key Points

- **About:**

- **Invited Guests:**

- Australia, India, South Korea, South Africa and the Chair (Brunei Darussalam) of the Association of Southeast Asian Nations (ASEAN).**

- Australia, India, South Korea and South Africa will also join the G7 Summit in June.**

- **Discussions:**

- **Russia's Irresponsible and Destabilising Behaviour:** This includes the large build-up of Russian military forces on Ukraine's borders and in illegally-annexed Crimea.

- **Related to China:** Human rights violations and abuses in Xinjiang and in Tibet, especially the targeting of Uyghurs, members of other ethnic and religious minority groups.

- Called on China to respect Hong Kong's high degree of autonomy and rights and freedoms (Basic Law).**

- Condemned the military coup in Myanmar.

- **Indo-Pacific:**

- Support for the **centrality of ASEAN on the Indo-Pacific**.

- Reiterated the **importance of maintaining a free and open Indo-Pacific** which is inclusive and based on the rule of law, democratic values, territorial integrity, transparency, the protection of human rights and fundamental freedoms, and the peaceful resolution of disputes.

- **International Rules-based Order:**

- This can be described as a shared commitment by all countries to conduct their activities in accordance with agreed rules that evolve over time, such as international law, regional security arrangements, trade agreements, immigration protocols, and cultural arrangements.

- **Group of Seven (G7):**



- **About:**

- It is an **intergovernmental organisation** that was **formed in 1975**.
- The bloc **meets annually** to discuss issues of common interest like global economic governance, international security and energy policy.
- The G7 **does not have a formal constitution or a fixed headquarters**.
The **decisions** taken by leaders during **annual summits** are **non-binding**.
 - The **groundwork for the summit**, including matters to be discussed and follow-up meetings, is **done by the “sherpas”**, who are generally personal representatives or members of diplomatic staff such as ambassadors.
 - The **leaders of important international organizations** like **European Union, IMF, World Bank** and the **United Nations** are also invited.

- **Issues:**

Not all of the G7 countries are among the most advanced now. India is both a military and economic giant but isn't part of the G7. So, its expansion, just like that of the United Nations Security Council, is called for.

- **India and G7:**
 - **Previous Participation:**
 - The participation of India at the 45th summit in Biarritz, France, in **August 2019** is a reflection of deepening strategic partnership and **recognition of India as a major economic power.**
 - India was **also invited for the 2020 summit hosted by the USA** which could not take place due to the pandemic.
 - Previously **India had attended the G8 summit** (it became G7 from G8 with the expulsion of Russia in 2014) **five times between 2005 and 2009.**
 - **Significance of India's Engagement with G7:**
 - It provides an opportunity for India **to develop cordial relations with developed countries.**
 - It will **boost security cooperation with member countries in Indo-Pacific**, particularly the Indian ocean.
 - As **current president of Brazil-Russia-India-China-South Africa (BRICS) and G20 president in 2023**, India will play a key role driving in **multilateral cooperation** helping to build back better around the world.

Source: TH

India's Sovereign Rating

Why in News

According to the **S&P Global Ratings**, **India's sovereign rating will remain unchanged at the current level of BBB-** for the next two years despite the potential adverse impact of surging **pandemic** on its economy.

S&P is one of the **largest credit rating agencies**, assigning letter grades to companies and countries and the debt they issue on a scale of AAA to D, indicating their degree of investment risk.

Key Points

- **Sovereign Credit Rating:**
 - A sovereign credit rating is **an independent assessment of the creditworthiness of a country or sovereign entity.**
 - It **can give investors insights into the level of risk** associated with investing in the debt of a particular country, including any political risk.
 - In addition to **issuing bonds** in external debt markets, another common motivation for countries to obtain a sovereign credit rating is **to attract foreign direct investment (FDI).**
 - At the request of the country, a credit rating agency will evaluate its economic and political environment to assign it a rating.
 - S&P gives a BBB- or higher rating to countries it considers investment grade, and grades of BB+ or lower are deemed to be speculative or "junk" grade.
 - Moody's considers a Baa3 or higher rating to be of investment grade, and a rating of Ba1 and below is speculative.
- **Sovereign Credit Ratings and India:**
 - **The Economic Survey 2020-21** has called for sovereign credit ratings methodology to be made more **transparent, less subjective and better attuned to reflect an economy's fundamentals.**
 - Within its sovereign credit ratings cohort – countries rated between A+/A1 and BBB-/Baa3 – India is a clear outlier on several parameters i.e. a sovereign whose rating is significantly lower than mandated by the effect on the sovereign rating of the parameter.
 - These include GDP growth rate, inflation, general government debt (as % of GDP), cyclically adjusted primary balance (as % of potential GDP), current account balance (as % of GDP), political stability, rule of law, control of corruption, investor protection, ease of doing business, short-term external debt (as % of reserves), reserve adequacy ratio and sovereign default history.
 - The outlier status remains true not only now but also during the last two decades.
 - The Survey observes that India's willingness to pay is unquestionably demonstrated through its **zero sovereign default history.**
 - India's ability to pay can be gauged not only by the extremely low foreign currency-denominated debt of the sovereign but also by the comfortable size of its foreign exchange reserves that can pay for the short term debt of the private sector as well as the entire stock of India's sovereign and non-sovereign external debt.

Credit Rating

- A credit rating is a quantified assessment of the **creditworthiness of a borrower** in general terms or with respect to a particular debt or financial obligation.

- A credit rating can be assigned to any entity that seeks to borrow money—an individual, corporation, state or provincial authority, or sovereign government.
- **A rating agency** is a company that assesses the financial strength of companies and government entities, especially their ability to meet principal and interest payments on their debts.
- **Fitch Ratings, Moody's Investors Service and Standard & Poor's (S&P)** are the big three international credit rating agencies controlling approximately 95% of global ratings business.
- In **India**, there are six credit rating agencies registered under **Securities and Exchange Board of India (SEBI)**, namely, **CRISIL, ICRA, CARE, SMERA, Fitch India and Brickwork Ratings**.

Source: TH

Recent Findings about Venus

Why in News

Recently, scientists have obtained **new data about Venus by bouncing radio waves** off the planet.

The scientists **transmitted radio waves toward Venus 21 times from 2006 to 2020 from NASA's Goldstone Antenna in the Mojave Desert of California** and studied the radio echo, which provided information on certain planetary traits.

Key Points

- **Latest Findings:**
 - A single Venusian **rotation takes 243.0226 Earth days**. This means **a day lasts longer than a year on Venus**, which makes a complete orbit around the sun in **225 Earth days**.
 - The **Venusian planetary core has a diameter of about 7,000 km**, comparable to **Earth's core** which is **6,970 km**.
 - The **Venusian tilt is at about 2.64 degrees**. **Earth's is about 23.5 degrees**.
- **Previous Findings:**
 - **Presence of phosphine** was detected in the atmosphere of Venus. This indicates the possibility of the presence of lifeforms on Venus.
 - According to a study published in **Nature Geoscience**, Venus is still **geologically active**.
 - The study identified **37 active volcanoes**, in the form of ring-like structures known as coronae, on the surface of Venus.

- **About Venus :**

- Venus, the **second planet from the sun**, is similar in structure but slightly smaller than Earth (**Earth's Twin**).
- It has a **thick and toxic atmosphere** that consists primarily of carbon dioxide, with clouds of sulfuric acid droplets.
- With a **runaway greenhouse effect**, its surface temperatures reach 471 degrees Celsius, hot enough to melt lead.

The phenomenon, called the '**runaway greenhouse' effect**, occurs when a planet absorbs more energy from the sun than it can radiate back to space. Under these circumstances, the hotter the surface temperature gets, the faster it warms up.

- Venus is **one of just two planets that rotate from east to west**. Only **Venus and Uranus** have this "backwards" rotation.
- Venus has **no moons and no rings**.
- On Venus, **one day-night cycle takes 117 Earth days** because Venus rotates in the direction opposite of its orbital revolution around the Sun.

- **Missions Related to Venus:**

- **ISRO Shukrayaan:** The **Indian Space Research Organisation (ISRO)** is also planning a mission to Venus, tentatively called Shukrayaan
- **Akatsuki** (Japanese 2015)
- **Venus Express** (European Space Agency 2005)
- NASA's **Magellan** (1989)

Source: TH

Effect of Covid on Urban and Rural Poor

Why in News

Recently, a report by **Hunger Watch** claimed that **Covid-19 has left the urban poor in India poorer**, more hungry and with less nutrition than their rural counterparts.

- **Hunger Watch** is a loose collection of social groups and movements.
- Earlier, a **study from the United Nations Development Programme (UNDP)** had found that an additional **207 million people could be pushed into extreme poverty by 2030** due to the severe long-term impact of the **coronavirus pandemic**.
- Also a **new research conducted by Pew Research Center** has found that the **Covid-19 has pushed about 32 million Indians out of the middle class and increased poverty in the country**.

Key Points

- **Economic Effect:**
 - The food insecurity has prompted **more people to enter the labour force (55% increase** in the labour force among the respondents).
It also noted a **silent rise in child labour as well.**
 - The **economic crisis was deepening as people who lost their jobs were yet to find replacements** and little had been accomplished after the **lockdown** for the revival of livelihoods in the informal sector.
 - Incomes **reduced by half or a quarter for more than half the urban respondents** while it was a little over **one-third for rural respondents.**
- **Public Distribution System & Social Sector Scheme Coverage:**
 - A large section of rural residents could cushion the blow of pandemic-driven economic disruption due to foodgrain via the **Public Distribution System (PDS)**. The urban poor's access to such ration, however, was minimal.
 - The **social security schemes also had relatively better coverage among the rural poor** as rural areas had better access to PDS rations.
 - A larger proportion of households **in urban areas did not have access to ration cards.**
- **Nutrition and Hunger:**
 - A **decline in nutritional quality and quantity was more among the urban respondents** as was the need to borrow money for buying food.
 - Overall, **levels of hunger and food insecurity remained high**, with little hope of the situation improving without measures specifically aimed at providing employment opportunities as well as food support.
 - Even when **India had a record food grain production at 296.65 million tonnes in the 2019-20 crop year** (July-June), beating the target of 291.1 million tonnes and 4% higher than 2018-19, the **net of hunger became more widespread as more people had to start skipping some meals in a day.**
 - **Things were much worse for socially vulnerable groups** such as households headed by single women, households with people having disabilities, **transgender** people and old persons without caregivers.
- **National Family Health Survey (NFHS) data:**
 - The figures in the Hunger Watch report are alarming, especially when seen in conjunction with the recent rounds of **NFHS data**.
 - The NFHS data has shown **either a worsening or stagnation in malnutrition** outcomes such as **prevalence of stunting and wasting among children** and **high levels of anaemia among women and children.**
- **Government Initiatives to Mitigate the Effects of Covid:**

Way Forward

Since the majority of the poor already had low incomes to begin with, a **further reduction in household income is akin to taking a bullet train to hunger**. This **calls for special attention on social protection measures** including schemes for provision of subsidised food and employment guarantee in urban areas.

Source: DTE

Regulations Review Authority 2.0

Why in News

Recently, the **Reserve Bank Of India (RBI)** has constituted an **Advisory Group to assist the second Regulations Review Authority (RRA 2.0)**.

The RBI has set up the **RRA 2.0, initially for a period of one year from 1st May, 2021**, with a view **to streamline regulations and reduce the compliance burden of regulated entities**.

Key Points

- **Background:**

In **1999**, the RBI had set up a **Regulations Review Authority (RRA)** for reviewing the regulations, circulars, reporting systems, based on the feedback from the public, banks, and financial institutions.

- **RRA 2.0:**

It will focus on **streamlining regulatory instructions, reducing compliance burden of the regulated entities by simplifying procedures and reducing reporting requirements**, wherever possible.

- It will also obtain feedback from regulated entities.
- **Regulated entities include commercial banks, urban co-operative banks, Non-Banking Financial Companies.**

Reserve Bank of India

- **Formation:**

- RBI was established on **1st April, 1935** in accordance with the provisions of the **Reserve Bank of India Act, 1934**.
- Though originally privately owned, since nationalization in 1949, the Reserve Bank is **fully owned by the Government of India**.

- **Major Functions:**
 - **Monetary Authority:** Formulates, implements and monitors the monetary policy.
 - Recent Initiative: Government Securities Acquisition Programme (G-SAP).
 - **Regulator and supervisor of the financial system:** Prescribes broad parameters of banking operations within which the country's banking and financial system functions.
 - **Manager of Foreign Exchange:** Manages the Foreign Exchange Management Act, 1999.
 - **Issuer of currency:** Issues and exchanges or destroys currency and coins not fit for circulation.
 - **Developmental role:** Performs a wide range of promotional functions to support national objectives.
 - **Regulator and Supervisor of Payment and Settlement Systems:** Introduces and upgrades safe and efficient modes of payment systems in the country to meet the requirements of the public at large.
 - **Recent Initiatives:** Digital Payments Index, Payments Infrastructure Development Fund
 - National Payments Corporation of India (NPCI), an umbrella organisation for all retail payments systems in India, was set up with the guidance and support of the RBI and Indian Banks' Association (IBA).
 - **Related Functions:**
 - **Banker to the Government:** performs merchant banking function for the central and the state governments; also acts as their banker.
 - **Banker to banks:** maintains banking accounts of all scheduled banks.
 - The Ways and Means Advances (WMA) are short-term loan facilities which allow the Centre and states to borrow funds from the RBI to bridge their temporary mismatch between expenditure and receipts.
- **RBI's Publications:**
 - Consumer Confidence Survey (CCS - Quarterly)
 - Inflation Expectations Survey of Households (IESH - Quarterly)
 - Financial Stability Report (Half-Yearly)
 - Monetary Policy Report (Half-Yearly)
 - Report on Foreign Exchange Reserves (Half-Yearly)

Source: IE

Unique Disability Identification Portal

Why in News

The Ministry of Social Justice & Empowerment has issued a notification making it mandatory for all **States/UTs** to grant **certificate of disability** through online mode only using **UDID (Unique Disability ID)** portal **w.e.f. 01.06.2021**.

Key Points

- **Unique Disability Identification (UDID) Portal:**
 - The project is being implemented with a view of **creating a National Database for persons with disabilities (PwDs)**, and to **issue a Unique Disability Identity Card** to each PwDs.
 - The project will not only **encourage transparency, efficiency and ease of delivering the government benefits** to the person with disabilities, but also **ensure uniformity**.
 - The project will **also help in stream-lining the tracking of physical and financial progress of beneficiaries** at all levels of hierarchy of implementation – from village level, block level, District level, State level and National level.
- **Right of Persons with Disabilities Act 2016:**
 - **Right of Persons with Disabilities Act 2016** replaces the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995.
 - **Disability has been** defined based on an evolving and dynamic concept.
 - It **increases the quantum of reservation** for people suffering from disabilities **from 3% to 4% in government jobs** and **from 3% to 5% in higher education institutes**.
 - This Act brings our law in line with the **United National Convention on the Rights of Persons with Disabilities (UNCRPD)**, to which India is a signatory.
- **Other Programmes/Initiatives for Disableds:**
 - **Accessible India Campaign:** Creation of Accessible Environment for PwDs.
 - **DeenDayal Disabled Rehabilitation Scheme:** Financial assistance is provided to NGOs for providing various services to Persons with Disabilities.
 - **Assistance to Disabled Persons for Purchase/fitting of Aids and Appliances (ADIP):** It aims at helping the disabled persons by bringing suitable, durable, scientifically-manufactured, modern, standard aids and appliances within their reach.
 - **National Fellowship for Students with Disabilities:** It aims to increase opportunities to students with disabilities for pursuing higher education.

Source PIB

Dahla Dam

Why in News

Recently, the Taliban has captured Afghanistan's second-biggest dam - Dahla Dam.



Key Points

- **Dahla Dam:**
 - The Dahla Dam is also known as **Arghandab Dam**.
 - It is **located** in the **Shah Wali Kot District of Kandahar Province, Afghanistan**.
 - It was constructed in **1952** by the **USA**.
 - It is built on the **Arghandab River**.
- **Dams built by India in Afghanistan:**
 - Pact for Construction of **Shahtoot Dam** on **Kabul River**.
 - **Afghanistan-India Friendship Dam** (Salma Dam).

Source TH
