

**Forum:** 3rd Committee: Social, Humanitarian and Cultural

**Issue:** Reduction of methane emissions from farming

**Chair:** Daniela Krūmina

**Co-Chair:** Janina Dmochowska



### **Description of issue:**

Methane is a potent greenhouse gas and, according to the latest report by the Intergovernmental Panel on Climate Change (IPCC), accounts for about half of the 1.0 degree Celsius net rise in global average temperature since the pre-industrial era. When a year ago US President Joe Biden and EU President Ursula Von der Leyen announced at the September 17th 2021 Major Economies Forum (MEF) meeting that the United States and the European Union are inviting countries to support the Global Methane Pledge, which was launched later on at the 26<sup>th</sup> annual summit of the Conference of the Parties (COP 26) in November 2021 in Glasgow, it shined a bright light on the urgent need to slash emissions of this potent, short-lived greenhouse gas. By signing the Global Methane Pledge, countries agreed to cut methane emissions (from 2020 levels) by 30% by 2030, which could eliminate over 0.2°C warming by 2050. The Pledge now has 111 country participants who together are responsible for 45% of global human-caused methane emissions. The Global Methane Pledge has brought together many important players in a joint international effort. The shared goal is a targeted reduction in global emissions for this gas. Still, the most important players have not yet joined, including China, India and the Russian Federation, which are collectively responsible for more than a third of global methane emissions.

**Main countries involved:** United States, China, Russian Federation, India

### **Background information:**

Methane is the primary contributor to the formation of ground-level ozone, a hazardous air pollutant and greenhouse gas, exposure to which causes 1 million premature deaths every year. Methane is also a powerful greenhouse gas, which means it has a great impact on global warming effect. Over a 20-year period, it is 80 times more potent at warming up the atmosphere than carbon dioxide. Methane has accounted for roughly 30 percent of global warming, since pre-industrial times and is proliferating faster than at any other time since record keeping began in the 1980s.

Agriculture is the predominant source of methane emissions responsible for roughly 40% of methane emissions: livestock emissions from manure and enteric fermentation represent roughly 32 per cent, and rice cultivation, 8 percent of the emissions. Population growth, economic development and urban migration have stimulated unprecedented demand for animal protein and with the global population approaching 10 billion, global hunger is expected to increase by up to 70 per cent by year 2050. Ruminants are essential to the livelihoods of millions of farmers and critical to human health, global food and nutritional security. Ruminants convert their feed into high value food products for humans (meat and milk) through enteric fermentation. They also provide important components such as asset savings, traction, manure for fuel and fertilizers, and

fiber. The amount of methane emitted is driven primarily by the number of animals, the type of digestive system, and the type and amount of feed consumed.

Research and technical development are searching innovative solutions to cut methane emissions in the farming sector. Relative to other global greenhouse gas abatement opportunities, reducing enteric methane through productivity gains is the lowest cost options and has a direct economic benefit to farmers. Getting farmers to improve the productivity of ruminants is a key way to improve rural livelihoods and improve food security. Farming systems that are much more productive generally also reduce enteric methane emissions per unit of animal product. These outcomes can be achieved through efforts in the following three areas: feed and nutrition, animal health and husbandry, animal genetics and breeding. Farmers can actually provide animals with more nutritious feed so that they are larger, healthier and more productive, effectively producing more with less. Scientists are also experimenting with alternative types of feed to reduce the methane produced by cows and looking at ways to manage manure more efficiently by covering it, composting it, or using it to produce biogas. Technical and policy solutions aimed at improving animal nutrition, health and genetics must be accessible to all farmers through technology, knowledge transfer, incentives and investments.

The Global Methane Pledge has been initiated by the US and the EU to speed up and unify the process. Still, the Pledge has not been signed by many countries including largest methane emitters. Those who have signed the Pledge are not starting from the same place. The text of the Global Methane Pledge states that the participants intend to review progress through annual ministerial meetings. The Pledge is non-binding and individual countries are not assigned targets. The United States and the European Union have asked all Global Methane Pledge participants to develop or update a national methane reduction action plan by COP27, but the Pledge does not specify additional actions or steps they are expected to take. Some of the countries have not provided UNFCCC greenhouse gas inventory data since 2000, and many other countries are considering the issue of methane emissions for the first time. It will be critical for participants to engage with countries that have not joined the Pledge in order to achieve the overall target.

### **Issues that should be addressed in the debate:**

*The lack of signing up for the Global Methane Pledge by many countries including largest methane emitters and what actions should be taken by the UN*

*Positions of countries represented including the largest methane emitters, including the specificity of agriculture sector (cattle ownership, dispersion, ownership)*

*Developing national action plans or strategies that identify specific actions to encourage emissions reduction, define timelines and assess needed resources;*

*Proposing new policies or regulations aimed at methane emissions, including technology and equipment standards*

*Adopting national reduction targets*

*Directing funding towards research and development in the areas of feed and nutrition, animal health and husbandry, animal genetics and breeding*

*Suggesting various changes, to be implemented in order to cut the global methane emissions*

**Key words:**

**Global Methane Pledge** – an initiative to reduce global methane emissions to keep the goal of limiting warming to 1.5 degrees Celsius within reach

**Conference of the Parties (COP)** – For nearly three decades the UN has been bringing together almost every country on earth for global climate summits called COPs

**Paris Agreement** - a legally binding international treaty on climate change, adopted by 196 Parties at COP 21 in Paris, on 12 December 2015 and entered into force on 4 November 2016, its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.

**United Nations Framework Convention on Climate Change (UNFCCC)** - established an international environmental treaty to combat "dangerous human interference with the climate system", in part by stabilizing greenhouse gas concentrations in the atmosphere. It was signed by 154 states at the United Nations Conference on Environment and Development (UNCED), informally known as the Earth Summit, held in Rio de Janeiro from 3 to 14 June 1992.

**Intergovernmental Panel for Climate Change (IPCC)** – the United Nations body for assessing the science related to climate change

**Major Economies Forum on Energy and Climate (MEF)** – Forum launched on March 28, 2009, intended to facilitate a candid dialogue among major developed and developing economies

**Agriculture** – the science of the practice of farming, including cultivation of the soil for the growing crops and the rearing of animals to provide food and other products.

**Useful resources:**

Methane emissions data (by country, by sector):

<https://www.globalmethane.org/methane-emissions-data.aspx>

<https://www.worlddata.info/greenhouse-gas-by-country.php>

Global Methane Pledge

<https://www.globalmethanepledge.org/>

COP26

<https://ukcop26.org/>

United Nations Climate Change

<https://unfccc.int/>

Global methane tracker

<https://www.iea.org/reports/global-methane-tracker-2022/the-global-methane-pledge>

Enteric methane

<https://www.fao.org/in-action/enteric-methane/background/en>

US action plan

<https://www.iatp.org/meeting-methane-pledge-us-can-do-more-agriculture>

US – China Joint Glasgow Declaration on Enhancing Climate Action in the 2020s: <https://www.state.gov/u-s-china-joint-glasgow-declaration-on-enhancing-climate-action-in-the-2020s/>

India's perspective

<http://loksabhaph.nic.in/Questions/QResult15.aspx?qref=30895&lsno=17>

Best practices for reducing livestock related methane emissions

<https://www.fao.org/in-action/enteric-methane/en>

Feed additives to reduce methane emissions:

<https://www.agric.wa.gov.au/climate-change/carbon-farming-reducing-methane-emissions-cattle-using-feed-additives>

Solutions from aquaculture:

<https://www.epa.gov/snep/agriculture-and-aquaculture-food-thought>

Solutions in diet change:

<https://www.theguardian.com/environment/2018/may/31/avoiding-meat-and-dairy-is-single-biggest-way-to-reduce-your-impact-on-earth>