

Clarification/Explanation Simulator 2022 Test 2

In Q.2), a doubt was raised regarding whether the Statement c (Assam Accord provided deportation of all foreigners who entered Assam and stayed legally on or after March 25, 1971) is incorrect.

Explanation: The Assam Accord provides that “Foreigners who came to Assam on or after March 25, 1971, shall continue to be detected, deleted and expelled in accordance with law. Immediate and practical steps shall be taken to expel such foreigners.” It means that the accord provides for deportation of all foreigners who came to Assam on or after March 25, 1971, whether stayed legally or illegally, as the term legally and illegally has not been discussed in the accord. The use of the term ‘legally’ in the Statement (c) does not mean that the person has been granted the Citizenship of India. The use of the term ‘foreigner’ in the statement itself means that the person has not been granted citizenship yet. Thus, in this context, the Statement (c) is correct and there is no change in the answer. Although we agree that, to avoid such interpretational errors, the statement could have better framed.

In Q.18), a doubt was raised regarding whether the Statement d (Tropical Jet Streams results in the reversal of upper air circulation from low-pressure to high-pressure) is correct.

Explanation: The Tropical Easterly Jet flows from east to west over Peninsular India at an altitude of 6 to 9 kilometres. It blows approximately over 14°N latitude during the summer months. With the coming of the Easterly Jet Stream, the subtropical westerly jet stream moves north of the Himalayas. The formation and onset of Tropical Eastern Jet over peninsular India results in reversal of upper air circulation patterns, thus the pressure now switches from high pressure to low pressure. The onset of Monsoon requires the same, i.e. the changing of pressure from high pressure to low pressure. The Statement (d) is thus correct and there is no change in the answer.

In Q.34), There is an update in the explanation of statement 1. There is no change in the answer.

Q.34) With reference to the role of Methane as a Greenhouse Gas (GHG), consider the following statements:

1. Rice cultivation is the biggest source of methane emissions.
2. It is a much more potent GHG than CO₂.
3. India is not a signatory to the Global Methane Pledge.

Which of the statements given above is/ are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Ans) b

Exp) Option b is the correct answer.

Methane (CH₄) is a hydrocarbon that is a primary component of natural gas. Methane is also a greenhouse gas (GHG), so its presence in the atmosphere affects the earth’s temperature and climate system. Over 25% of global warming today is being driven by Methane.

Statement 1 is incorrect:

Overall, Agriculture is the largest source of global greenhouse gas emissions (more than 40%). In agriculture, there are two major sources. Livestock and Rice cultivation.

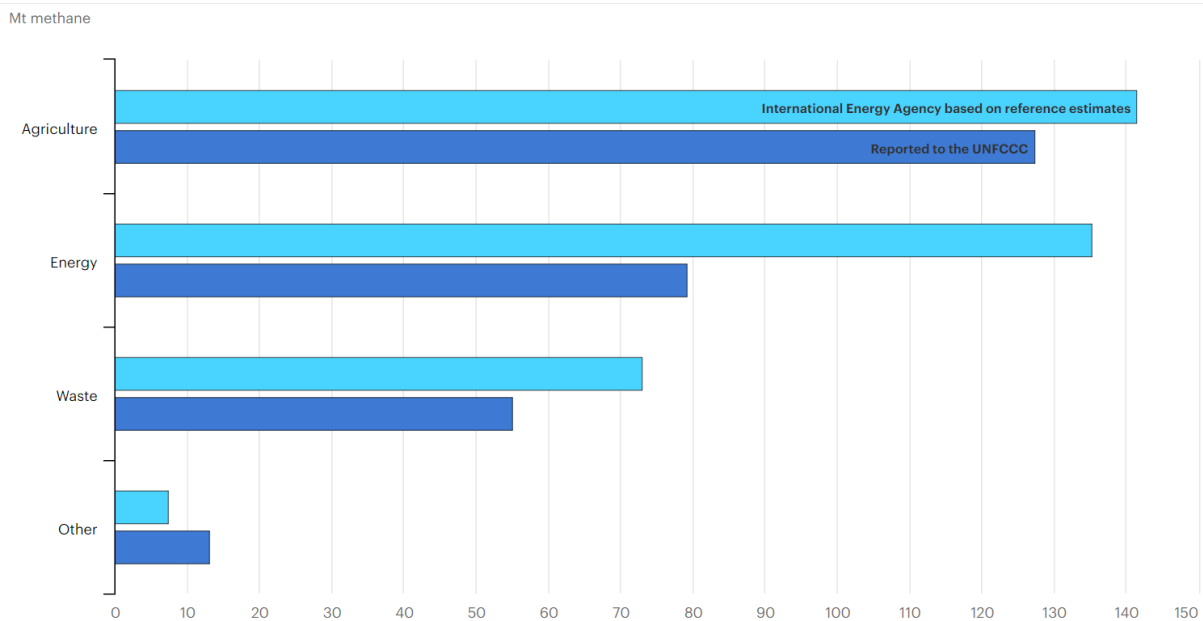
Livestock emissions accounts for roughly 32 per cent of human-caused methane emissions. It includes emissions from manure and gastro enteric releases. Gastro Enteric releases includes enteric fermentation due the gut bacteria present in ruminating cattle, which accounts for around 27% of total methane emissions.

Paddy rice cultivation accounts for around 8 per cent of human-linked emissions.

Other anthropogenic emission sources include landfills, oil and natural gas systems, agricultural activities, coal mining, stationary and mobile combustion, wastewater treatment, and certain industrial processes.

The energy sector is the second largest source of methane emissions, attributable to human activity, second only to agriculture.

Global Methane Emissions shown in the graph below:



Statement 2 is correct: Although the **lifespan of methane (12 years)** is much **lower** than that of **CO₂**, its **Global Warming Potential (GWP)** is much **more** - more than **80 times compared** to CO₂ over a 20 year span.

Statement 3 is correct: The **Global Methane Pledge** is an initiative launched during the **UNFCCC Climate Summit in Glasgow in 2021**. It aims to **reduce methane emissions by 30% from 2020 levels by 2030**. So far 90 countries have signed it. However, **India has refused** to be a **signatory**. This is because, the **major sources** of methane emissions in **India** are **Livestock enteric fermentation** and from **rice cultivation** and controlling either of these will **impact both food security** as well as **income security** of India's vast numbers of subsistence **farmers** who are already **poor**.

In Q.98), a doubt was raised regarding whether the Statement 3 (Inbreeding is done to increase the productivity of inbred population) is correct.

Explanation: Inbreeding is the production of offspring from the mating or breeding of individuals or organisms that are closely related genetically. In other words, the breeding between animals of the same breed is called inbreeding. In Inbreeding, superior males and superior females of the same breed are identified and mated in pairs. The progeny obtained from such matings are evaluated and superior males and females among them are identified for further mating. For instance, a superior female, in the case of cattle, is the cow or buffalo that produces more milk per lactation. Therefore, Inbreeding helps in increasing the productivity and efficiency of the population. Inbreeding exposes harmful recessive genes that are eliminated by selection. It also helps in accumulation of superior genes and elimination of less desirable genes. Therefore, this approach, where there

is selection at each step, increases the productivity of inbred population. Thus, Statement 3 is correct and there is no change in the answer.