Amazon Fires and World Climate

What is the issue?

- The Amazon rainforest is burning at an alarming rate, creating worldwide concerns. Click here to know more.
- Here is a look at the role the Amazon plays in regulating the world's climate and the possible impact of Amazon fires on the world climate.

What is the current Amazon scenario?

- The current fires in the Amazon are not wildfires.
- They are manmade and are mostly set illegally by landgrabbers who are clearing the forest for cattle ranching and crops.
- Deforesting the Amazon is a long, slow process.
- People clear the land by cutting down the vegetation during the rainy season, letting the trees dry out and burning them during the dry season.
- Fully clearing the dense forest for agricultural use can take several years of slashing and burning. But now, it is not taking place at this small-scale level.
- The 21st century deforestation takes place with tractors connected by large chains, which are pulling trees out by their roots.

Is oxygen supply really at risk?

- It is commonly said that the Amazon produces 20% of the world's oxygen.
- Climate scientists however claim that the figure is wrong and the oxygen supply is not directly at risk in any case.
- This is because forests, including the Amazon, absorb roughly the same amount of oxygen they produce.
- Plants do produce oxygen through photosynthesis, but they also absorb it to grow, as do animals and microbes.

What is the crucial role then?

- The Amazon rainforest is frequently referred to as the "lungs of the planet."
- But a better way to picture the Amazon's role is as a 'sink'.
- This is because the Amazon forests drain heat-trapping carbon dioxide from the atmosphere.
- It is a critical absorber of carbon of carbon dioxide, a greenhouse gas produced by burning fossil fuels, like oil and coal.

- Currently, the world is emitting around 40 billion tons of CO_2 into the atmosphere every year.
- Of this, the Amazon absorbs 2 billion tons of CO_2 per year (or 5% of annual emissions).
- In this way, the Amazon forests play a vital role in preventing climate change.

What effect do the fires create now?

- Fires in the Amazon mean the carbon-absorbing forest is disappearing.
- Besides this, the fires also mean that the flames themselves are emitting millions of tons of carbon every day.
- This could be as serious as turning the thick jungle of Amazon into a tropical savannah.
- This is because the rainforest recycles its own water to produce a portion of the region's rain.
- So, deforestation would make rains less frequent, and extend the dry season.
- Estimatedly, if 20% to 25% of the forest is destroyed, the dry season will expand enough that it will no longer be a forest, but a savannah.

Source: Indian Express

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