

India and climate change due to CO2 Emission: To view the issue from our perspective

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The future of humanity is seriously threatened by the changes in the climate over the past few years. In this sense, Research on environmental issues and international trade has been dominated by consumption-based carbon emissions. This study looks at the relationship between carbon emissions and methods for controlling them. It also explores carbon emissions in global value chains linked to India. Extreme weather events have become more frequent in India, endangering populations. The nation faces severe air pollution in major cities and has become the world's most populous country with 1.4 billion people, consuming natural resources at a rising rate. CO2 emissions and industrial production have a short-term positive correlation but a long-term negative correlation and statistical insignificance. The paper provides an overview of carbon capture techniques, from pre-combustion to direct air capture, chemical absorption, membrane separation, and adsorption. Carbon is utilized in chemical synthesis, fuel production, and creating carbon-based materials, offering financial and ecological benefit. These applications' financial and ecological benefits showcase CCU's transformative impact on sustainability. Officials must focus on reducing pollution in high-emission nations. Countries reducing coal and oil should transition to cleaner energy sources like natural gas. A determined effort is needed to overcome barriers and utilise CCU's potential for global carbon reduction.

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