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Climate change and its effect on the Indian economy

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Table of contents

1

Climate Change – Global v/s India

Page no. 2

2

How will Climate Change affect our industries?

Page no. 3

3

Impact of climate change on our Industries

Page no. 5-7

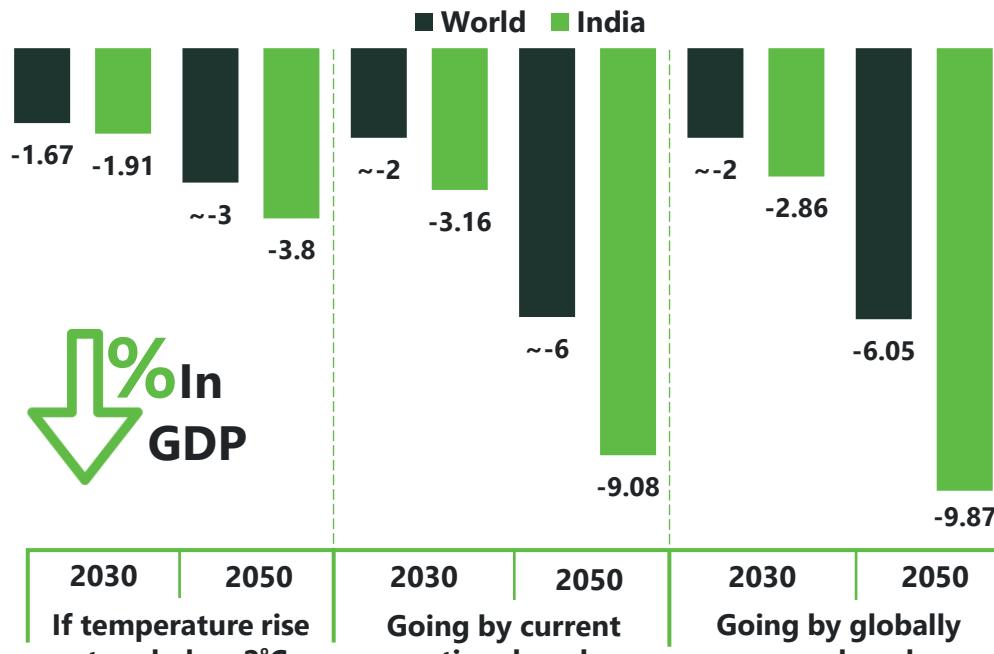
4

Conclusion

Page no. 8

Climate Change – Global v/s India

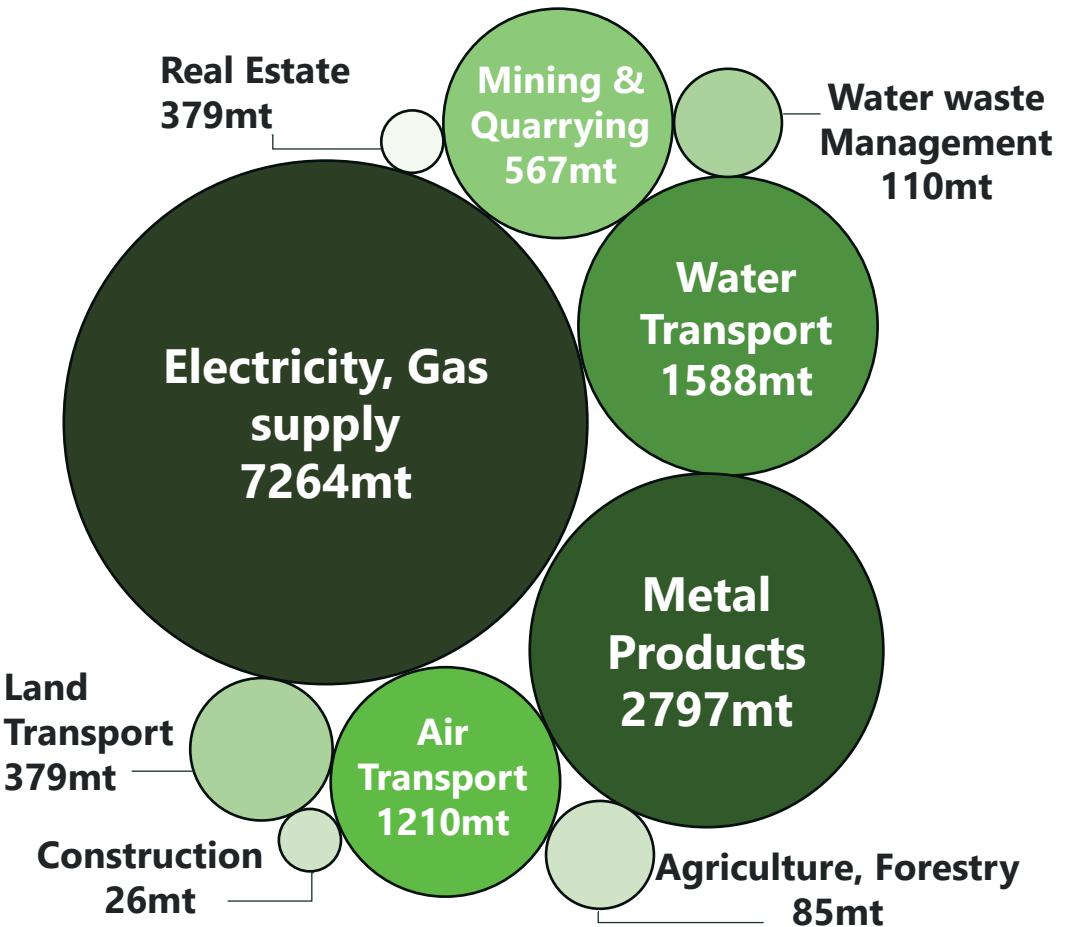
Climate change effect on the world v/s India



According to the report from the Reserve Bank of India, it indicates that by 2030, up to **4.5% of India's GDP** could be jeopardized because of approximately **40% lost labor productivity** from extreme heat and humidity.

Source: [India Today](#)

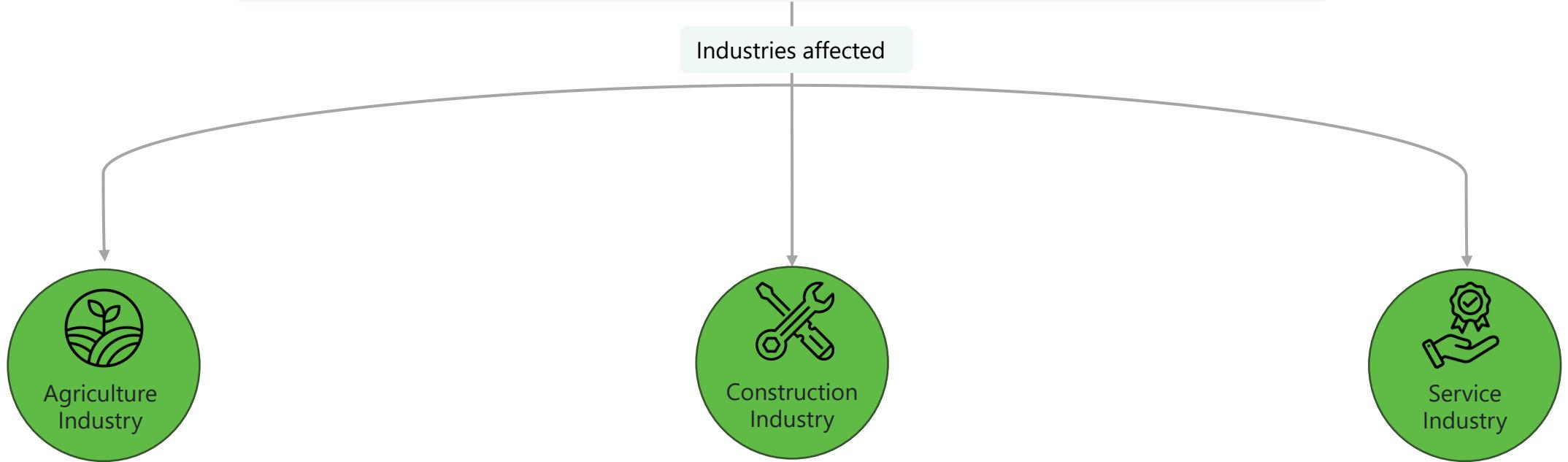
Main sources of CO₂ emission by industries in India



How will Climate Change affect various Industries?



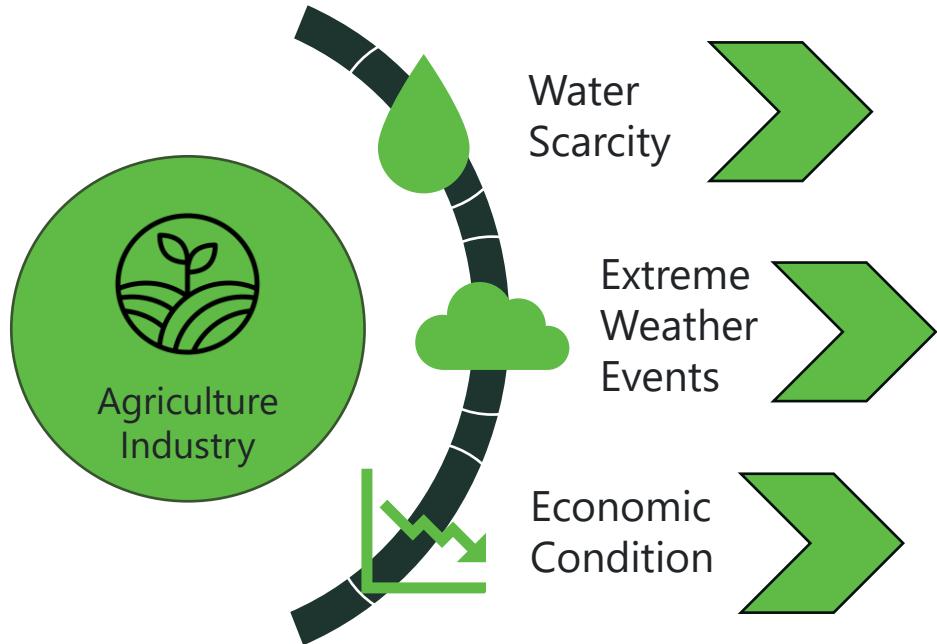
3.4 crore of the projected 8 crore global job losses from **heat stress** by 2030 stem from India.



Source: *India Today*

Impact of Climate Change on our Industries

Impact of Climate Change on the Agriculture Industry

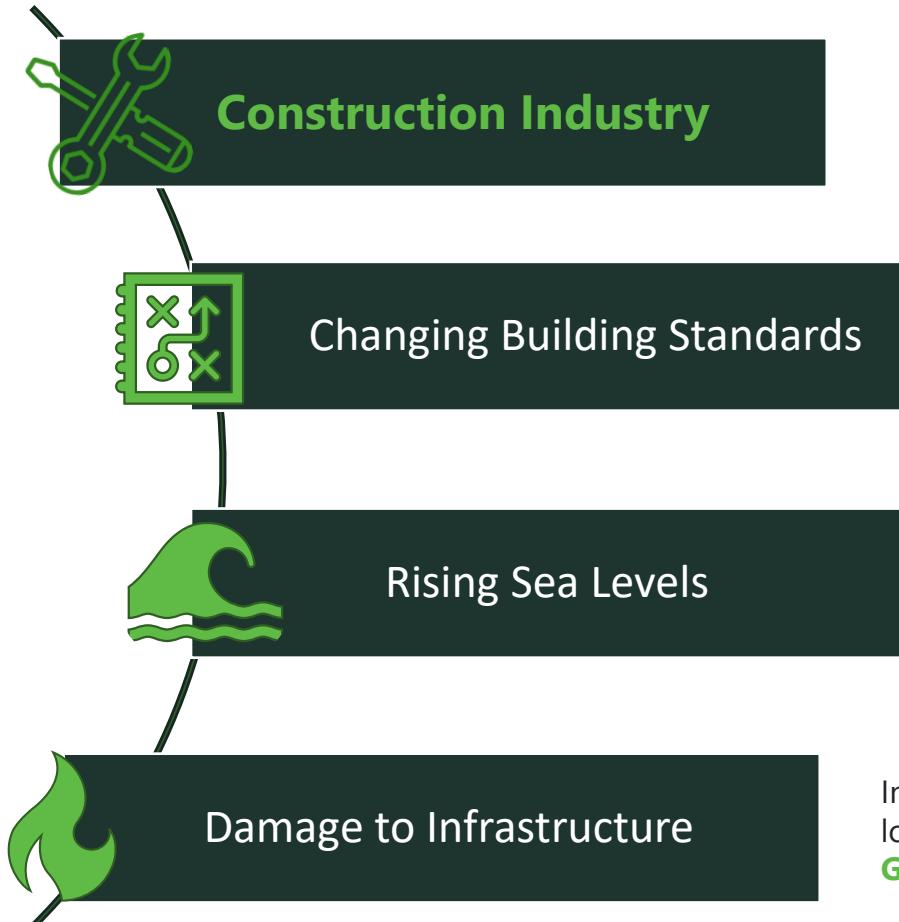


90% of total water withdrawal in a country with high stress on water resources is absorbed by agriculture. This raises severe sustainability issues if it is to sustain further irrigation development and cope with climate risks.

About **12%** of the land in India is exposed to the risks of **river flooding** and **erosion**. The agricultural sector is particularly vulnerable to the effects of climate change, like rising temperatures and unpredictable rainfall patterns.

By 2050, there is a projected decline in rice and wheat yields with potential losses ranging from **46** and **88 billion Dollars** (or 1.8-3.4% of GDP). Climate change could also decrease farm incomes by **15%**, peaking at **25%** for unirrigated areas.

Impact of Climate Change on the Construction Industry



Building codes will need to be strictly enforced and urban planning will need to be prepared for climate-related disasters. Coastal embankments will need to be built where necessary and **Coastal Regulation Zone codes** enforced strictly.

In **2050**, a rise in sea level along India's coast is likely to affect **5,763 sq km** combined area of the coastal states, resulting in the submergence of coastal areas, floods and an increase in tropical cyclones, thereby threatening infrastructure.

In **2022**, the impact of disasters on infrastructure and buildings, resulting in average losses of \$732 billion to \$845 billion each year, is equivalent to **14%** of the **global GDP** growth.

Impact of Climate Change on the Service Industry

A **20%** drop in **heavy rare earth output** is attributable to the increased risk of landslides, flooding, and transportation delays to and from mining sites due to the effects of climate change.



The tourism industry can be affected by climate change due to **extreme weather events**, changing landscapes and altered biodiversity leading to shifts in tourist destinations.

Child stunting is expected to increase due to climate change, contributing to heightened concerns about malnutrition.

The effects of climate change represent a considerable risk to patients' health and care like losing access to healthcare facilities, shortage in drugs due to **disruption of supply chains**.

Conclusion



Cost of Climate Change in India

Climate change due to rising temperature and changing patterns of monsoon rainfall in India could cost the Indian economy **2.8 percent** of its **GDP** and depress the living standards of nearly half of its **population by 2050**



Collaborations for Climate Solutions

Venture capitalists and entrepreneurs can catalyze funds, expertise and support to fuel climate technology innovation and align start-up **efforts to meet net-zero targets**. Larger companies can also mainstream such innovation



Focus on Technology and Innovation

One such example is Mahindra & Mahindra's **Krish-e initiative**, which provides free advisory, digital, and precision-farming solutions to farmers to enhance productivity and reduce farmers' vulnerability to climate change.



Adaptation Measures

Building infrastructure that's **resilient to climate extremes**, developing drought-resistant crops, and improving disaster management systems are crucial.



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