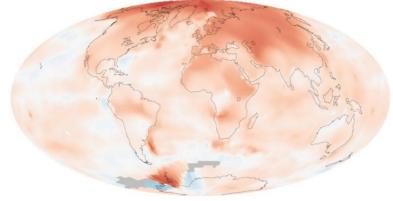
ANISH PATEL AHMED ELGAMAL ANDRE DORF RAJASTHAN INDIA

#### Fossil Fuel Contributions To Global Warming

The process is called greenhouse effect, the earth gets energy in the form of sunlight from the sun, the earth absorbs some of that energy and reflects the rest back to space, however burning fossil fuels release CO2 and other greenhouse gasses into the air. When there are greenhouse gasses in the air, they work as a blanket that absorbs the reflected heat causing the earth to warm up. As a result, ice glaciers meltdown,

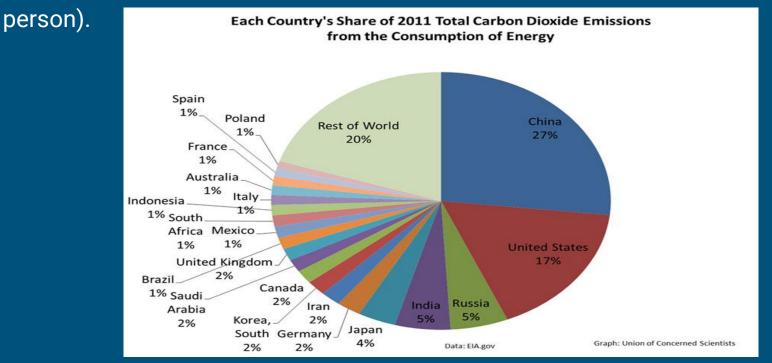
sea level rises, etc, causing either

extreme droughts or floods.



#### **Fossil Fuel Production?**

#### India produces 5% of the total emissions in the world (1.45 tons of carbon per



#### Drought Effects on Agriculture

The southwest monsoons affected hundreds of lives of farmers in India. The cultivation of Rice, Cotton, Soybean and Pulses have been badly affected. Indian agriculture largely depends upon Monsoon rainfall. Severe shortages of food have been felt by the country and it's been forced to resort to import food to prevent its people from starvation.



#### Rainfall In The Last 10 Years

In the last 10 years, Rajasthan received a constant rainfall of about 300-500mm. In 2015 Rajasthan received about 300-900mm annual rainfall so based on the data Rajasthan's rainfall went higher within 10 years.



#### Rainfall

Period	Temperature	Rainfall
January to March	10 oC - 27 oC	4MM - 7MM
April to June	24 oC - 45 oC	11MM - 30MM
July to September	21 oC - 35 oC	100MM - 165MM
October to December	13 oC - 30 oC	3MM - 8MM

As the data above shows, Rajasthan often receive so little rainfall over long periods of time. From july to september it rains a lot which causes floods.

#### Rainfall





Floods

Little Rainfall

#### Environmental Factors That Left Rajasthan Vulnerable

Arid and semi-arid climate, rainfall of less than 100mm west Rajasthan. Southwest monsoon becomes extreme over arid zone causing serious shortfalls in food grain as well as water.



#### Percent Of Emissions Driving Rajasthan`s Climate

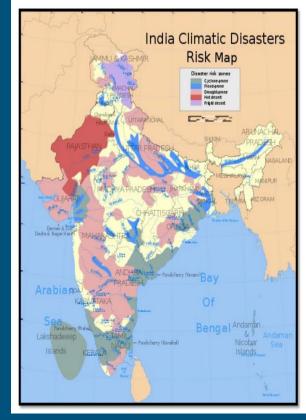
In 2011 India produced 5% of the total emissions of the world (1.45 tons of carbon per person). Rajasthan cut off the 5 percent is pretty small.





#### Climate Change & Environment

If climate change continues Rajasthan will have no food. Dominating monsoon seasons will provide 80% annual rainfall. People will die due to hurricanes, floods and storms. Global warming will cause threats to food security in India. Droughts will cause rainfall less than 750mm per year.



#### Steps Rajasthan Is Taking

Rajasthan's renewable energy transmission investment program is a major step India is taking to reduce CO2e. They completed installation of about 1767 MW of wind and 45MW of solar generators by 2011. Their goal is to set 8,000 MW of solar and wind projects by 2018. In 25 years, emissions avoided will total about 135 million tons of CO2e.



#### Factors That Help Limit OFF Use

India's dependence on imported fossil fuels rose to 38% in 2012 despite the country having significant amounts of fossil fuel resources. India is ranked as the fourth largest energy consumer in the world in 2011. The country's energy demand continues to climb as a result of dynamic economic growth. Petroleum natural gas and coal are India's three major sources of energy. coal is India's primary source of energy equaling 44% of total energy consumption. India's newly-elected government faces challenges to meet the country's growing energy demand.

### Steps To Cope & Prevent Effects Of Climate Change

Rajasthan exhibits a wide diversity of temperatures from the freezing cold Winters to the scorching heat of the Thar Desert. The climates of Rajasthan is dominated by a monsoon season, which is India's most important season providing 80% of the annual rainfall. When there isn't enough rainfall droughts occur. Some steps to cope with these natural disasters are by creating committees and policies. In India, there is the National Disaster Management Authority (NDMA). it is the Apex body for addressing the disaster related policy issues.



# 2050 Predictions For Rajasthan In terms Of Disaster & Migration

If India's sea level continues to rise, just one more meter is expected to displace approximately 7 million people. About 5764 kilometers of land area will be lost along with 4200 kilometers of road. By the year 2050 I expect that millions of people will be forced to migrate due to lack of space and natural resources. The process of global warming has affected India intensely, destroying its economy and depriving people of their basic needs.



People parched for water are ready to injure each other as they struggle to get water from a well in the drought affected areas of India.

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