



## **2018-IP23; South Asia is vulnerable to climate change and it is only going to get worse**

The World Bank have issued a new report called: '**South Asia's Hotspots: Impacts of Temperature and Precipitation Changes on Living Standards**' which can be read in full at:

<https://openknowledge.worldbank.org/bitstream/handle/10986/28723/9781464811555.pdf>

The novel aspects of this regional study by the World Bank are:

- It brings forward new research on the impact of climate change in South Asia by analysing how changes in average temperature and precipitation - referred to as "average weather" - will affect living standards.
- It breaks new ground in understanding how weather conditions affect living standards by combining and analysing granular temperature and precipitation information and household survey data.
- The book identifies climate "hotspots" - areas where changes in average weather are predicted to have a negative impact on living standards - in South Asia.

The main findings are:

The book analyses two future climate scenarios - one that is "climate-sensitive," in which some collective action is taken to limit greenhouse gas emissions, and one that is "carbon-intensive," in which no action is taken.

Both scenarios show rising temperatures throughout the region in the coming decades, with the carbon-intensive scenario leading to greater increases. Expected changes in rainfall patterns are more complex in both scenarios.

Changes in average weather are projected to have overall negative impacts on living standards in Bangladesh, India, Pakistan, and Sri Lanka. While negative impacts are sizable under both climate scenarios, they are more severe under the carbon intensive scenario.

Unlike sea-level rise and extreme weather events, changes in average weather will affect inland areas the most.

For most countries, changes in average weather will also reduce growth of their gross domestic product (GDP) per capita, compared to what it would be under present climate conditions.

The GDP losses are greater for severe hotspot regions.

More than 800 million people - almost half of South Asia's population - currently live in areas that are projected to become moderate to severe hotspots by 2050 under the carbon-intensive scenario.

Most projected hotspots are found to be in disadvantaged areas.

The report's recommendations are:

- Overall, ensuring good development outcomes is the best strategy to build resilience to changes in average weather and improve hotspots.
- The book identifies interventions tailored to each country that could mitigate hotspots. Interventions must account for differences in local conditions between hotspots.



- South Asia's Hotspots, together with existing studies on the impacts of sea-level rise and extreme events, creates a sound foundation for investing in targeted policies and actions to build climate resilience throughout the region.

The press release on the report given out by the World Bank focuses on the report's findings with regards to India - see:

<https://www.worldbank.org/en/news/press-release/2018/06/28/climate-change-depress-living-standards-india-says-new-world-bank-report>

Key messages are:

- Rising temperatures and changing monsoon rainfall patterns from climate change could cost India 2.8 percent of GDP and depress the living standards of nearly half the country's population by 2050, a World Bank report says.
- India's average annual temperatures are expected to rise by 1.00°C to 2°C by 2050 even if preventive measures are taken along the lines of those recommended by the Paris climate change agreement of 2015. If no measures are, taken average temperatures in India are predicted to increase by 1.5°C to 3°C.
- In India today, approximately 600 million people live in locations that could either become moderate or severe hotspots by 2050 under a business-as-usual scenario, the report says. States in the central, northern and north western parts of India emerge as most vulnerable to changes in average temperature and precipitation.
- To help offset the negative economic impact in India the analysis suggests enhancing educational attainment, reducing water stress, and improving job opportunities in the non-agricultural sectors should be key policy measures. The analysis predicts that a 30 percent improvement on these measures could halt the decline in living standards by almost 1 percent from -2.8 percent to -1.9 percent.

This work follows a second recently published World Bank report entitled: '**Groundswell: Preparing for Internal Climate Migration**' which can be found at:

<https://openknowledge.worldbank.org/handle/10986/29461>

This report focuses on three regions: Sub-Saharan Africa, South Asia, and Latin America that together represent 55 percent of the developing world's population. The main finding is that climate change will push tens of millions of people to migrate within their countries by 2050.

It projects that, without concrete climate and development action, just over 143 million people, or around 2.8 percent of the population of these three regions, could be forced to move within their own countries to escape the slow-onset impacts of climate change. They will migrate from less viable areas with lower water availability and crop productivity and from areas affected by rising sea level and storm surges. The poorest and most climate vulnerable areas will be hardest hit.

These trends, alongside the emergence of "hotspots" of climate in- and out-migration, will have major implications for climate-sensitive sectors and for the adequacy of infrastructure and social support systems.

The report finds that internal climate migration will likely rise through 2050 and then accelerate unless there are significant cuts in greenhouse gas emissions and robust development action.



A very good infographic that summarises the report's findings can be seen at: <http://www.worldbank.org/en/news/infographic/2018/03/19/groundswell---preparing-for-internal-climate-migration>

To get their message over, the World Bank have also created a series of videos using stories from three individuals in Ethiopia, Bangladesh and Mexico who have personal stories of being forced to migrate from, their villages in their respective countries. You can find these at:

<http://www.worldbank.org/en/news/feature/2018/03/19/meet-the-human-faces-of-climate-migration>

**John Gale**  
**23/07/2018**