Implications of 1.5^{0}C global warming for agricultural productivity over a global rice exporting region in Central India

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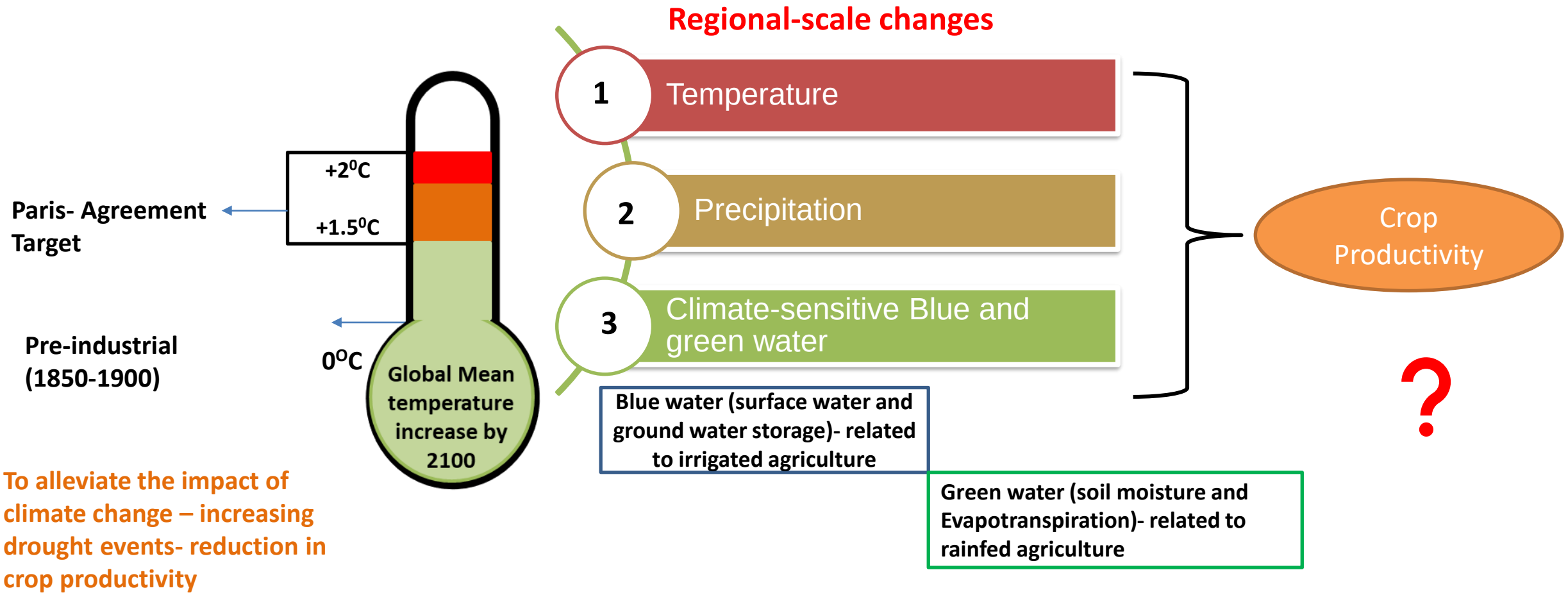
How the 1.5^{0}C global warming target of the Paris-Agreement look at the regional-scale - uncertain



To alleviate the impact of climate change – increasing drought events- reduction in crop productivity

Depends on the choice of climate model, region, and climate change scenarios

Question addressed using Central India as a case study

What is the framework that can be adopted to perform the regional-scale assessment of 1.5^{0}C warmer world?

What are the regional-scale changes in different components of the water cycle in a 1.5^{0}C warmer world?

What is the impact of these changes on water-intensive rice crop?

Key Findings

Summary

In summary, it is essential to adopt appropriate strategies to manage the agriculture productivity at 1.5^{0}C global warming level

Projected decrease in precipitation

⬇

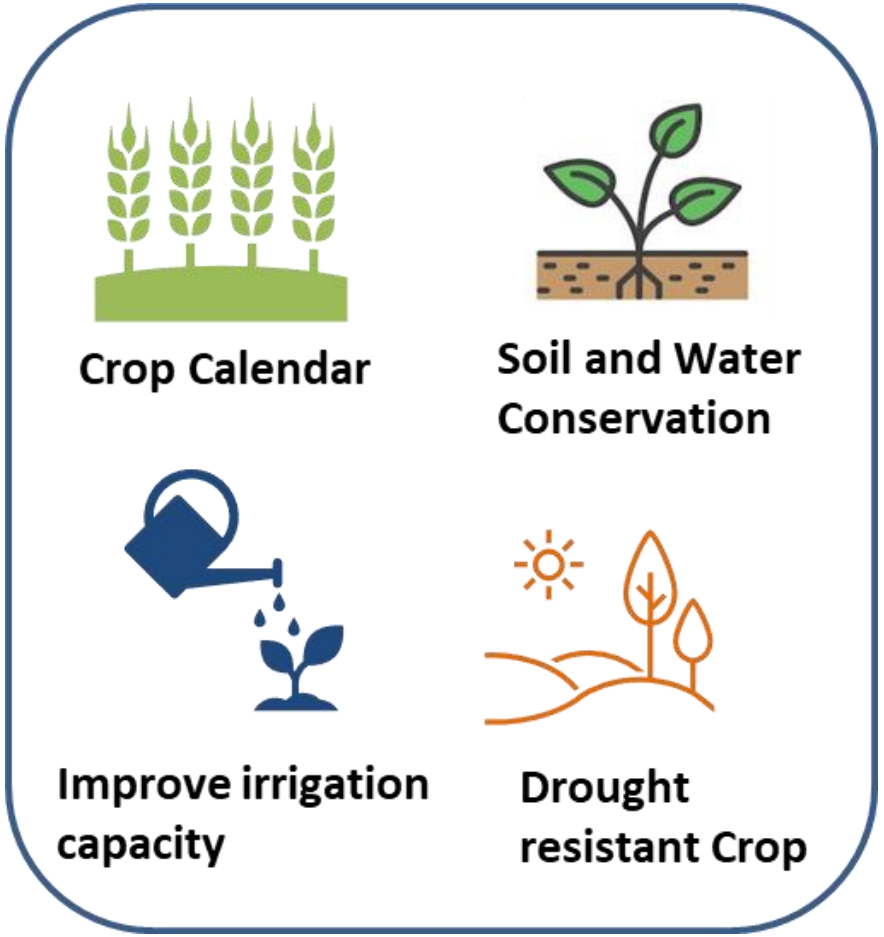
Projected decrease in blue and green water over the region

⬇

Decrease in availability of water for rainfed and irrigated crop

⬇

Rice yield might not meet the required productivity target



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