

## LS 2X03 - Lecture 9 – Climate Change and Indirect Impacts

1. Climate Trends
2. Effects of Climate Change on Social Dynamics
3. Climate Change and the Limits of Crops
4. Vulnerability to Climate Change

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## Key Concepts

- Impacts of Climate Change on Social Dynamics and Associated Feedbacks
- Impacts of Climate Change on Crops: trends
- Impacts on Food Prices and Nutrition
- Climate Change as a Driver of Conflicts and Population Migration

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STUDENT  
ACCESSIBILITY  
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### NOTETAKERS NEEDED

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Are you in class regularly?  
Do you take legible notes?  
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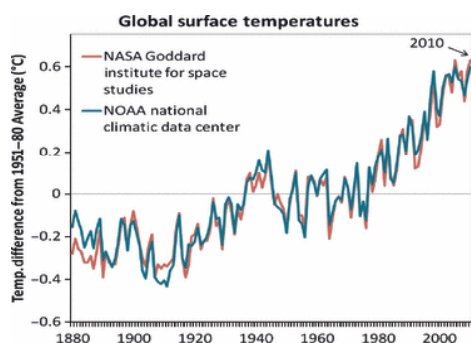
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## 1. Climate Trends




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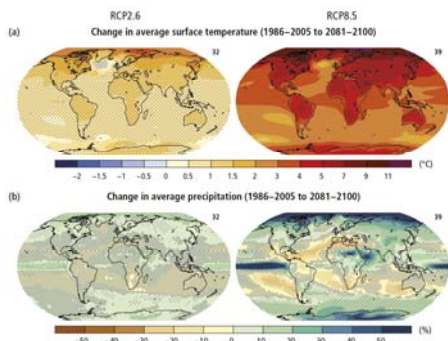
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## People and the Future Climate




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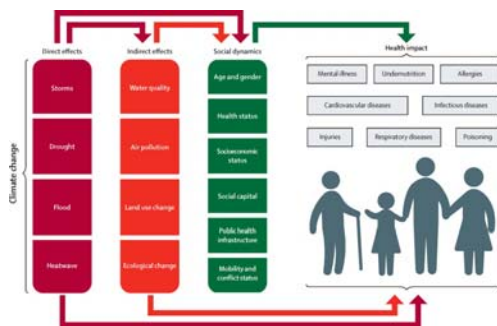
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## 2. Effects of Climate Change on Social Dynamics




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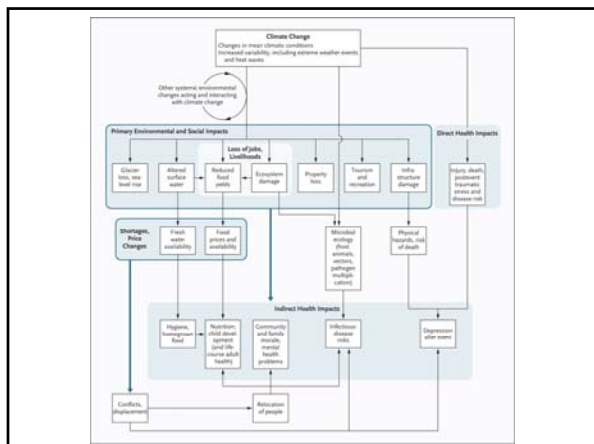
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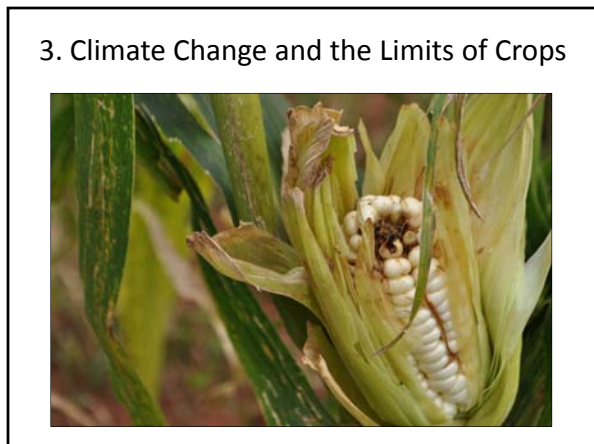
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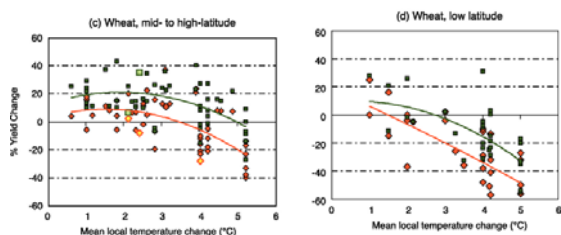
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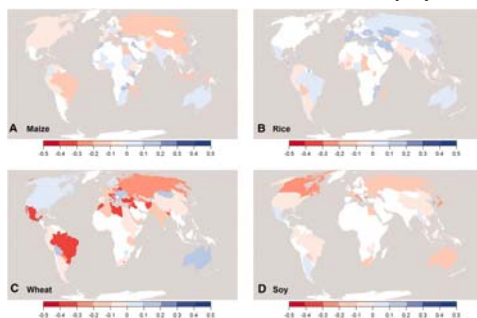
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## Crops and Temperature Changes

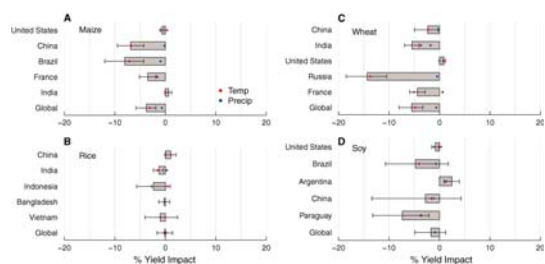
- Global production potential, is threatened at:



## Estimated net impact of climate trends for 1980–2008 on crop yield

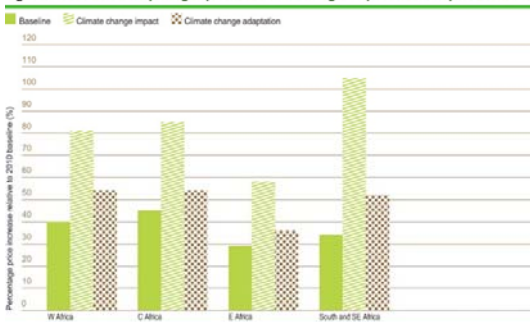


## Estimated net impact of climate trends for 1980–2008 on crop yields for major producers and for global production



## Price of Food on the Markets

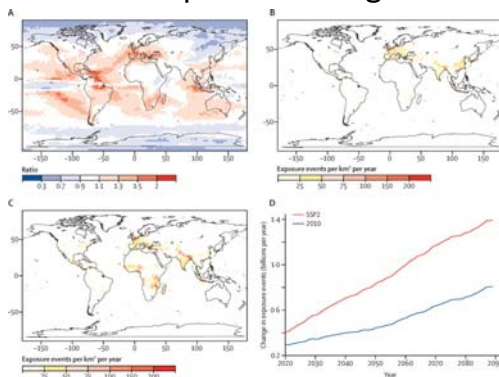
Figure 14: Predicted dampening impacts of climate change adaptation on the price of maize



## Climate Change and Malnutrition



## The Impact of Droughts



#### 4. Vulnerability to Climate Change




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#### Climate Change and Conflicts




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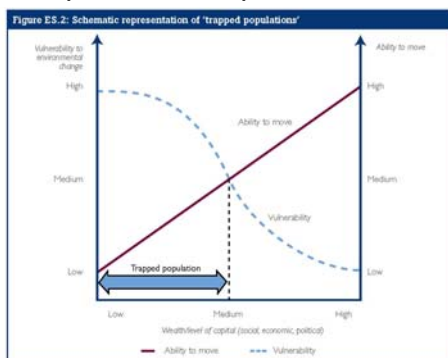
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#### Population Displacement




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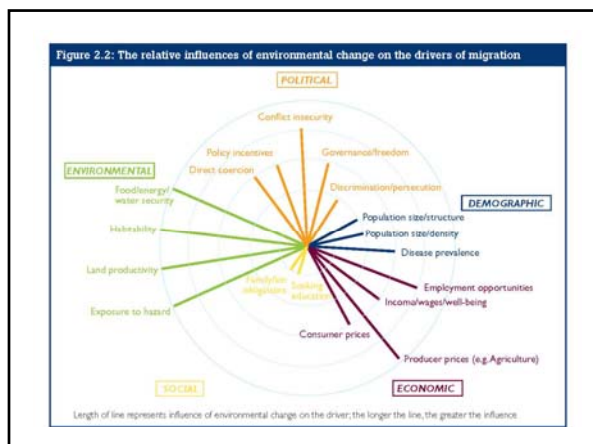
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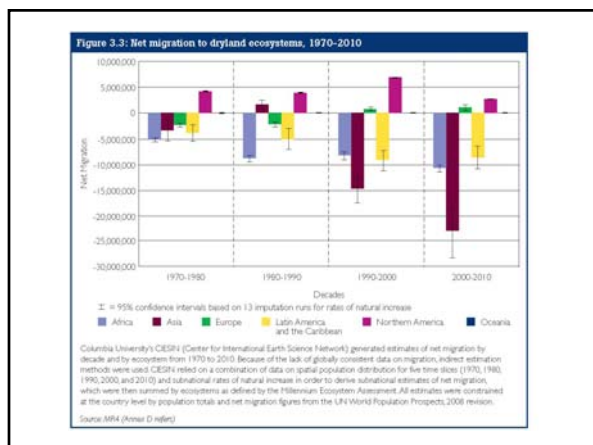
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## Conclusion

- There are direct and indirect effects of climate change on health and wellbeing
- Climate change will impact crops and livestock as there are physiological limits to their health, productivity, and survival, which are related to temperature
- Climate is likely to be a source of conflicts and displacement, particularly affecting trapped populations

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### End of Lecture Question

1. What can international aid agencies do to help the countries most vulnerable, mitigate the impacts of climate change on their food supply?

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### TO DO!

1. For next Lecture: read Article 9
2. Tutorials this week: Introduction to Group Presentations + Group Contract

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