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## Climate Change 2022

# Impacts, Adaptation and Vulnerability in Food Systems

Key messages from Ch 5 Food, fibre and other ecosystem products

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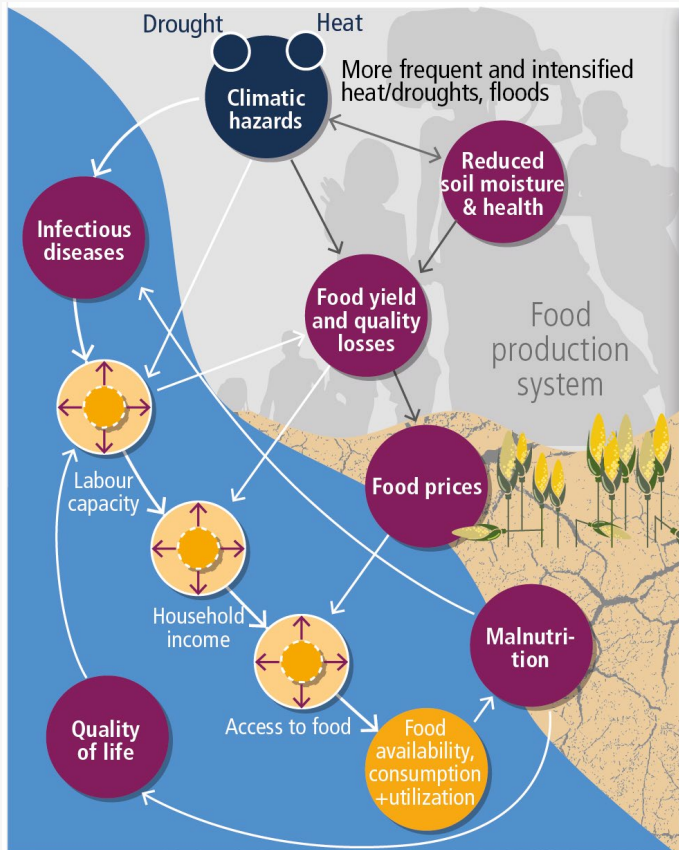


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Compared with the previous report, **more robust & widespread evidence of observed impacts**, particularly around **climate-related hazards**

- Increasing extreme events have put millions of people at risk of **acute food insecurity**, particularly **in Africa, Asia, Central and South America, Small Islands and the Arctic**.
- **Human-induced** climate change has **slowed the agricultural growth over the past 50 years globally with regionally different impacts**.
- Vulnerable groups, such as **women, children, low-income households, Indigenous or other minority groups and small-scale producers**, are often at higher risk of malnutrition, livelihood loss, rising costs and competition over resources.

## Greater evidence of **complex & cascading events** undermining food security and nutrition



**Multiple climate hazards cause multiple impacts, interacting to compound risks to food security, nutrition and human health.**

- **Simultaneous reductions in food production** across crops, livestock, and fisheries
- Heat- related loss of **labour productivity**
- Increased **food contamination** from toxins
- Cascading impacts on **food prices** and **household incomes**, and **reduced access to safe and nutritious food**

## Action on adaptation has increased

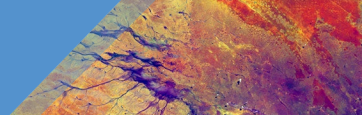
### Effective options:

- Cultivar improvements
- Agroforestry
- Farm and landscape diversification
- Community-based adaptation
- Strengthening biodiversity

### Wider benefits:

- Food security and nutrition
- Health and well-being
- Livelihoods





## More evidence of **adaptation limits**, **maladaptation** and **financial constraints**

### Limits to adaptation

Even effective adaptation cannot prevent all losses and damages, and limits will be reached at higher levels of global warming.

e.g.

- By 2°C it will be challenging to farm multiple staple crops in many current growing areas.

### Maladaptation

Adaptation that results in unintended consequences. The most disadvantaged groups are most affected.

e.g.

- Large-scale and/or groundwater-dependent irrigation projects or programs can reduce long-term availability and increase salinity and water costs.

### Financial constraints

- Current global financial flows are insufficient
- Most finance targets emissions reductions rather than adaptation
- Climate impacts can slow down economic growth

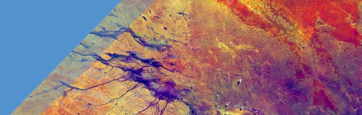


“ There are increasing gaps  
between adaptation action taken  
and what’s needed.  
These gaps are largest among  
lower income populations.  
They are expected to grow.



To avoid mounting losses, urgent action is required to adapt to climate change.

At the same time, it is essential to make rapid, deep cuts in greenhouse gas emissions to keep the maximum number of adaptation options open.



# THANK YOU


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## For More Information:

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