Climate change and food security

Including selected findings and recommendations of the report by the High Level Panel of Experts on Food Security and Nutrition

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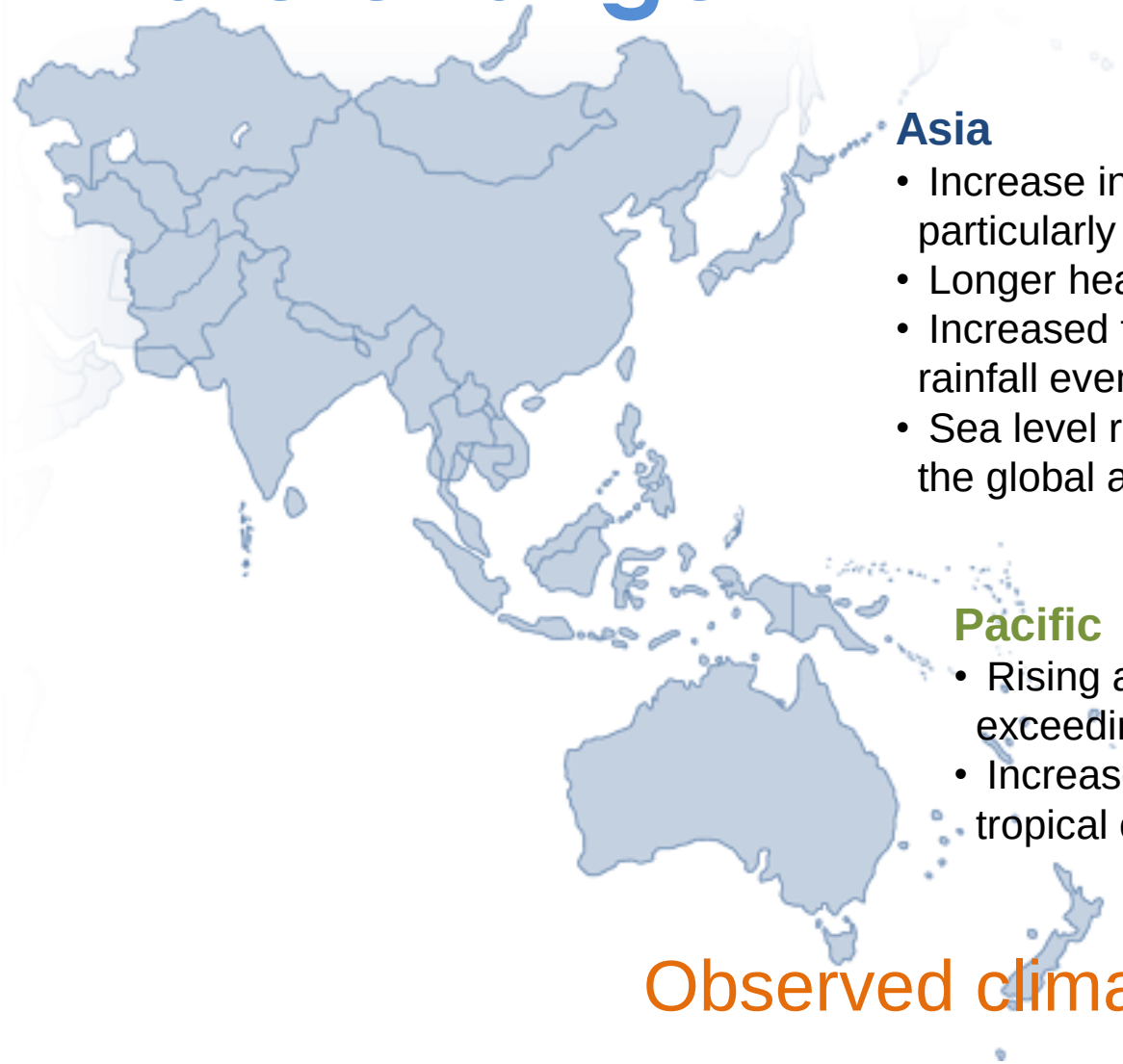
Climate change

Temperature rise	Change in precipitation	Extreme weather	Sea level changes	Glacial Retreat
				

Key impact variables

Climate change



Asia

- Increase in air temperature – particularly in North Asia
- Longer heat waves
- Increased frequency of intense rainfall events
- Sea level rise slightly greater than the global average

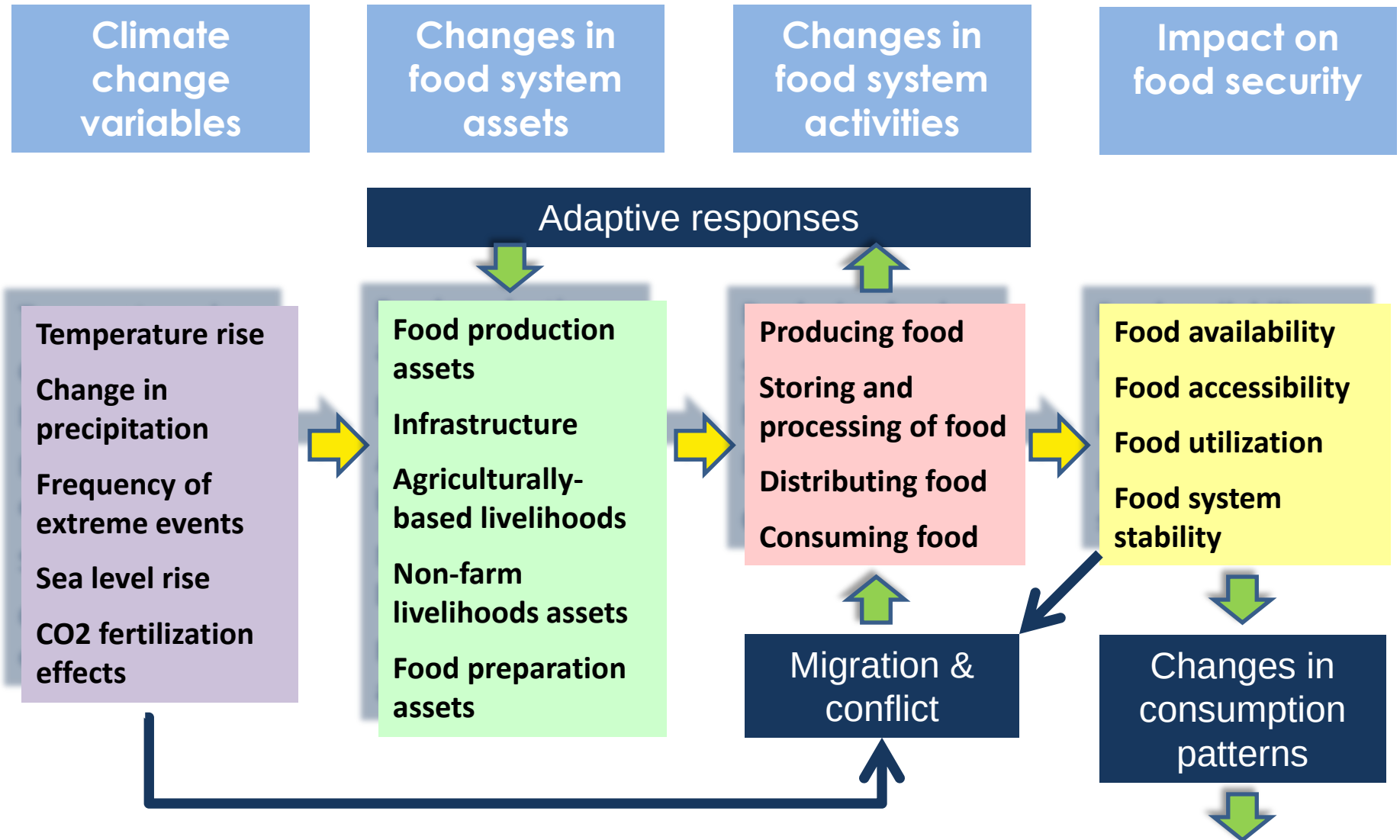
Pacific

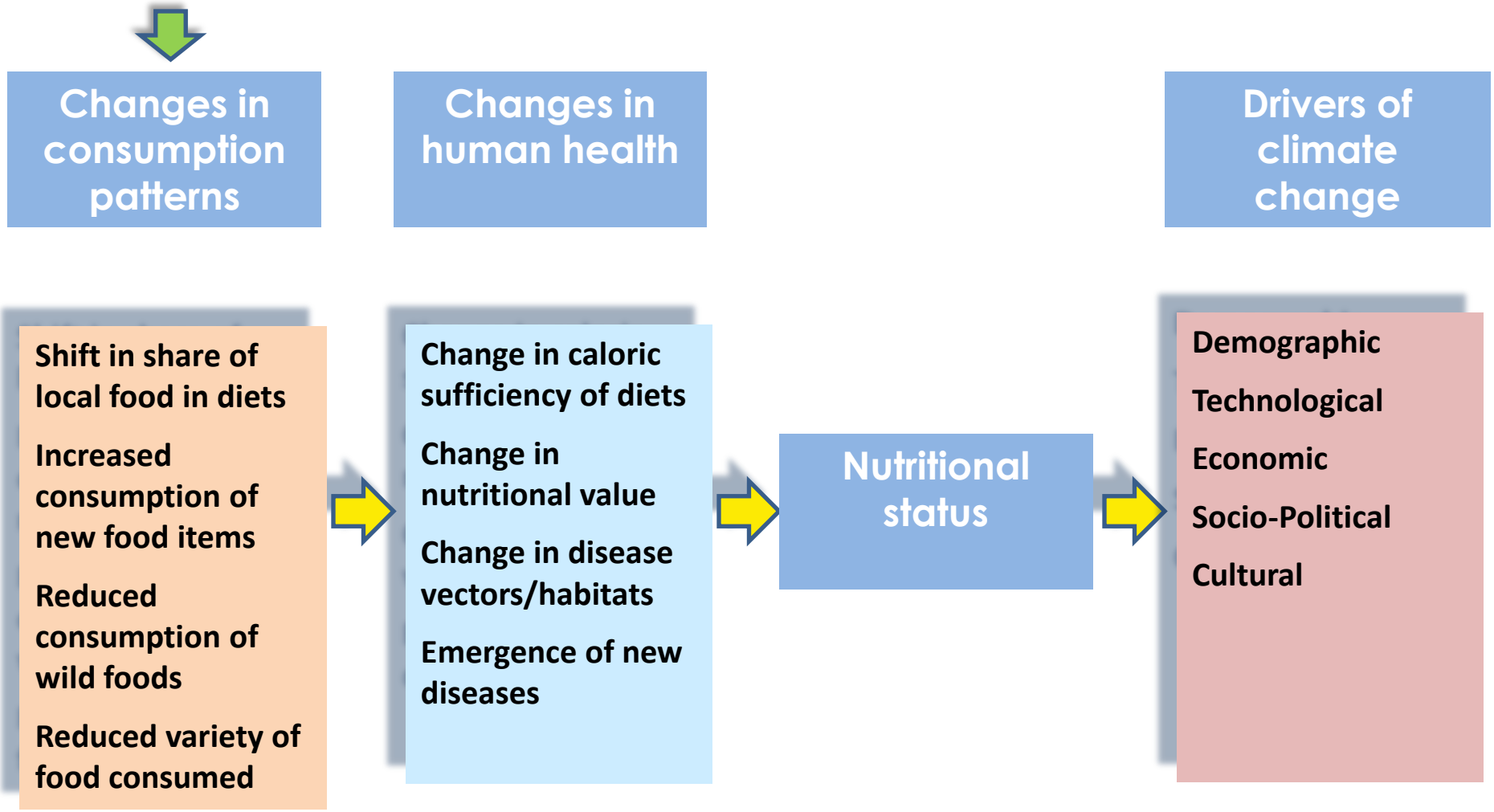
- Rising air temperatures – exceeding global average
- Increase number and intensity of tropical cyclones

Observed climate changes

Climate change and food security

FAO Framework

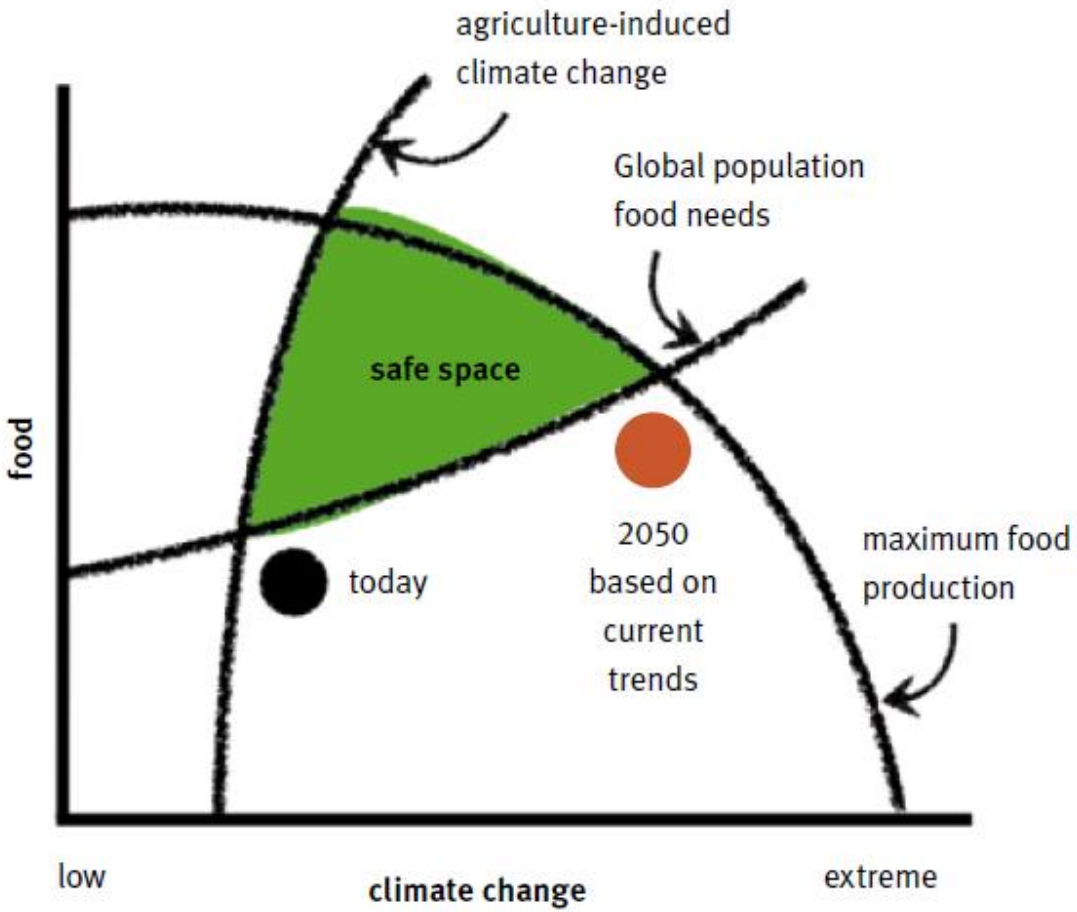


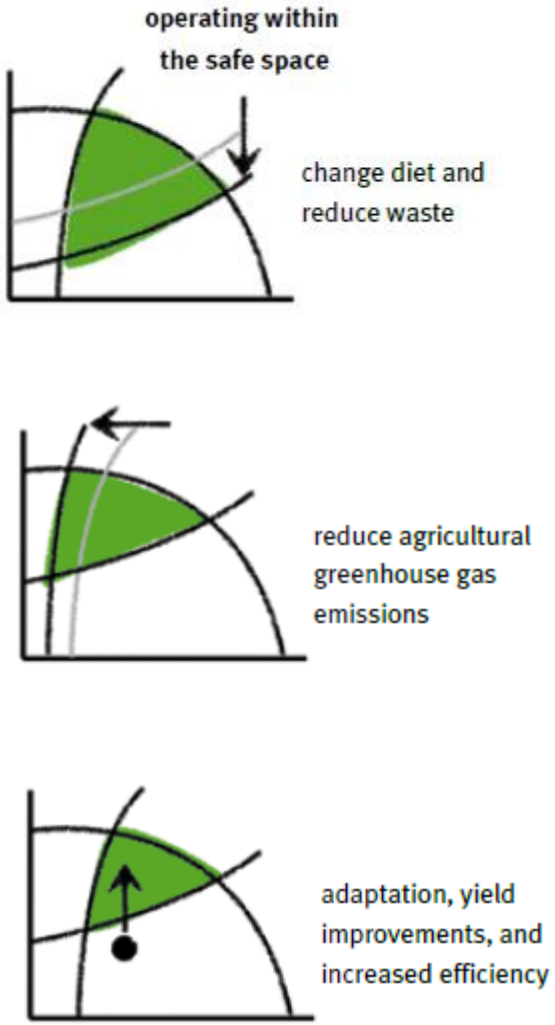


Climate change and food security

FAO Framework Continued

Finding a “safe space” for food and climate systems





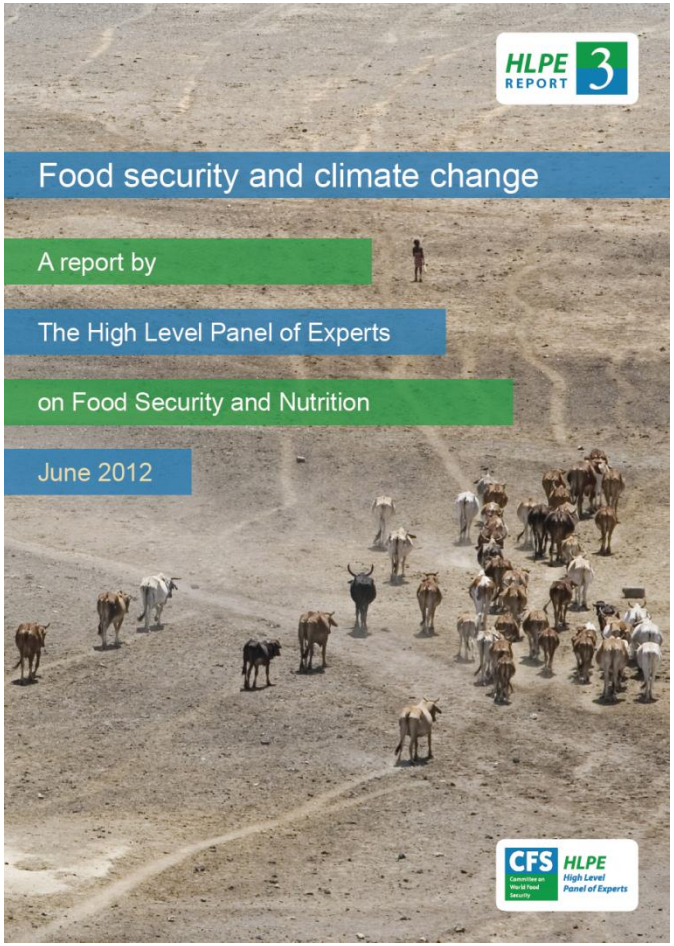
Source: Commission on Sustainable Agriculture & Climate Change, 2012

In 2010, the CFS requested the HLPE to work on Climate Change, specifically to review:

- Existing assessments and initiatives on the effects of climate change on food security and nutrition, with a focus on the most affected and vulnerable regions and populations; and

- The interface between climate change and agricultural productivity, including the challenges and opportunities of adaptation and mitigation policies and actions for food security and nutrition.

HLPE Report 3 - June 2012
“Food Security and climate change”



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Report elements

1. Impacts of CC on Food and Nutrition Security today : Assessing **Vulnerability** today

2. Assessing impacts of CC on Food and Nutrition Security tomorrow : Plausible **Scenarios** of the Future

3. **Adaptation** : Response options for Food Security challenges from CC

4. Agriculture and GHG emissions : **Mitigation** options with Food Security synergies

5. **Coordination and coherence** of Food Security and CC Policies and Actions

Selected findings

- Biophysical and social vulnerability are critical when considering impact of climate change on food security.
- There is mounting evidence of the impact of climate change on yields of major crops.
- Climate variability will result in increased variability in production leading to more price and income fluctuations.
- The poor and other vulnerable groups are likely to be at high risk to food insecurity brought about by climate change.
- Existing models and scenarios are a starting point to identify vulnerable regions, systems and people.

Selected findings

- Adaptation of the food system requires complex social, economic and biophysical adjustments to food production, processing and consumption.
- Examples of successful adaptation practices already exist.
- Farmers and food producers cannot adapt to climate change alone.
- Agriculture is an important driver of climate change.
- There are many options available to reduce emissions from the agriculture sector that do not negatively affect food security

Recommendations to Policy-Makers

1. Integrate food security and climate change concerns.
2. Increase resilience of food systems to climate change.
3. Develop low-emissions agricultural strategies that do not compromise food security.
4. Collect information locally, share knowledge globally, and refocus research to address a more complex set of objectives.
5. Facilitate participation of all stakeholders in decision making and implementation.

Thank you

Website: http://www.fao.org/cfs/cfs-hlpe