Climate change, food security and disaster risk management

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Messages

- Looking beyond food availability
- Social vulnerability
- Adaptation as process and continuum



The climate change challenge

The IPCC Fourth Assessment Report (AR4) finds that:

- Global temperatures are rising
- Sea levels are rising consistent with warming of oceans
- Varied effects on precipitation, but increased area affected by drought
- Extreme weather events correlated with climate change
- ...and these changes are projected to increase in the future



Defining adaptation

'the ability to respond and adjust to actual or potential impacts of changing climate conditions

in ways that moderate harm or take advantage of any positive opportunities that the climate may afford'

Adaptation is about reducing the risks posed by climate change to people's lives and livelihoods



An adaptation process and continuum





Food security analysis

- Availability
- Stability
- Utilisation
- Access



Entitlement analysis

- Production-based
- Labour-based
- Trade-based
- Transfer-based



Natural Hazard

Hazard determined by:

- -Recurrence probability
- -Magnitude
- -Duration
- -Speed of onset
- -Geographical extent

Vulnerable System

Risk of disaster or negative impact

Vulnerability determined by:

- -Exposure
- -Sensitivity
- -Resilience
- -Adaptive capacity



Vulnerability assessment and analysis

Biophysical vulnerability

+

Social vulnerability

The who, where and why of vulnerability



Disasters and adaptation

- Both aim to reduce vulnerability
 - Awareness/preparedness
 - Mitigation of impacts
 - Prevention of impacts
- Gaps between communities
 - Timescale of concern
 - Humanitarians vs natural resources
 - International frameworks and institutions



Institutions and adaptation

- Redesigning institutions to respond to climate change and disasters is key
 - Longer term approach to risk reduction rather than post-event response
 - Linking various stakeholders (govt departments, NGOs, civil society groups)
- Finance
 - Sufficiency
 - Equity
 - Delivery



Issues for FAO consideration

- Implementation
 - Agricultural technologies, disaster risk reduction (social protection, alternative livelihoods)
- Research and information
 - Climate change impacts on food crops, building adaptive capacity, strengthening institutions
- Institutions and partnerships
 - International, national, sub-national