

UN Climate Change Conference COP18
27 November 2012 | 13:15 - 14:45

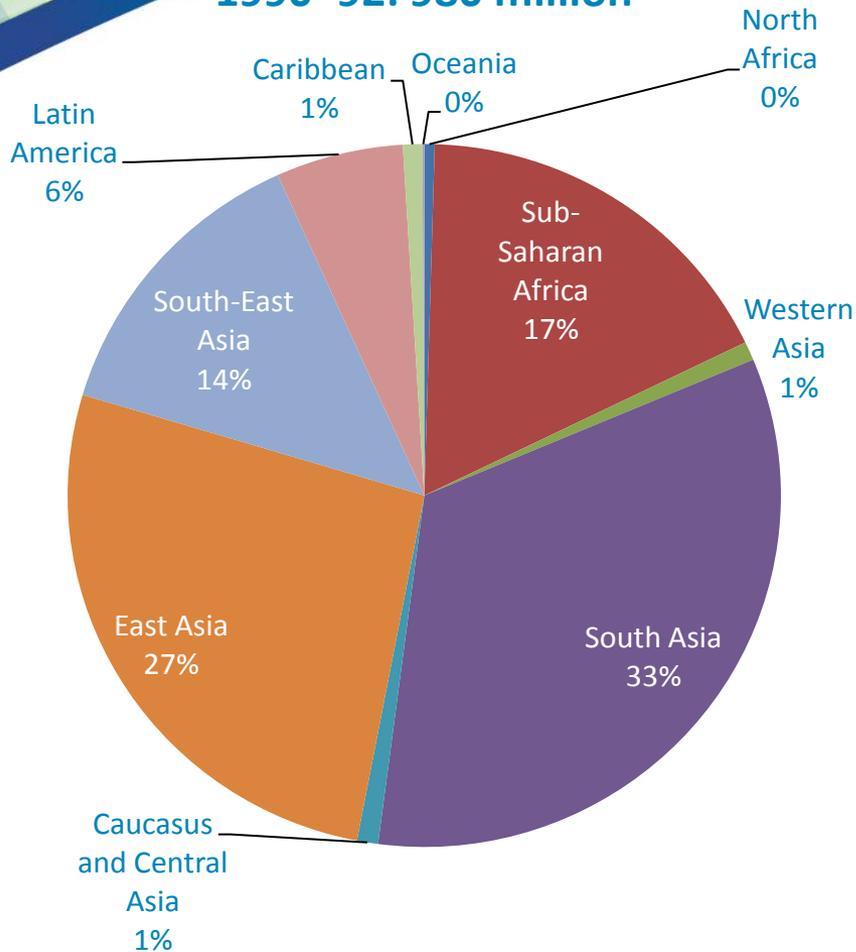
Sustainable Agriculture, Food Security and Climate Change

How can climate-smart approaches help to build
resilience in food security and agriculture?

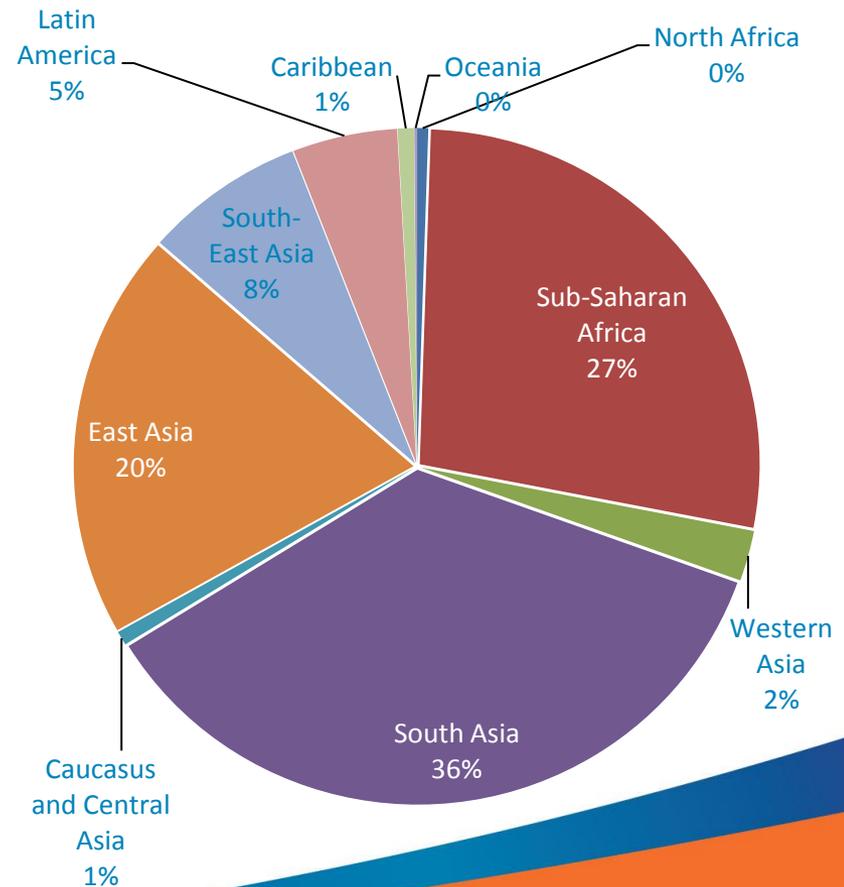


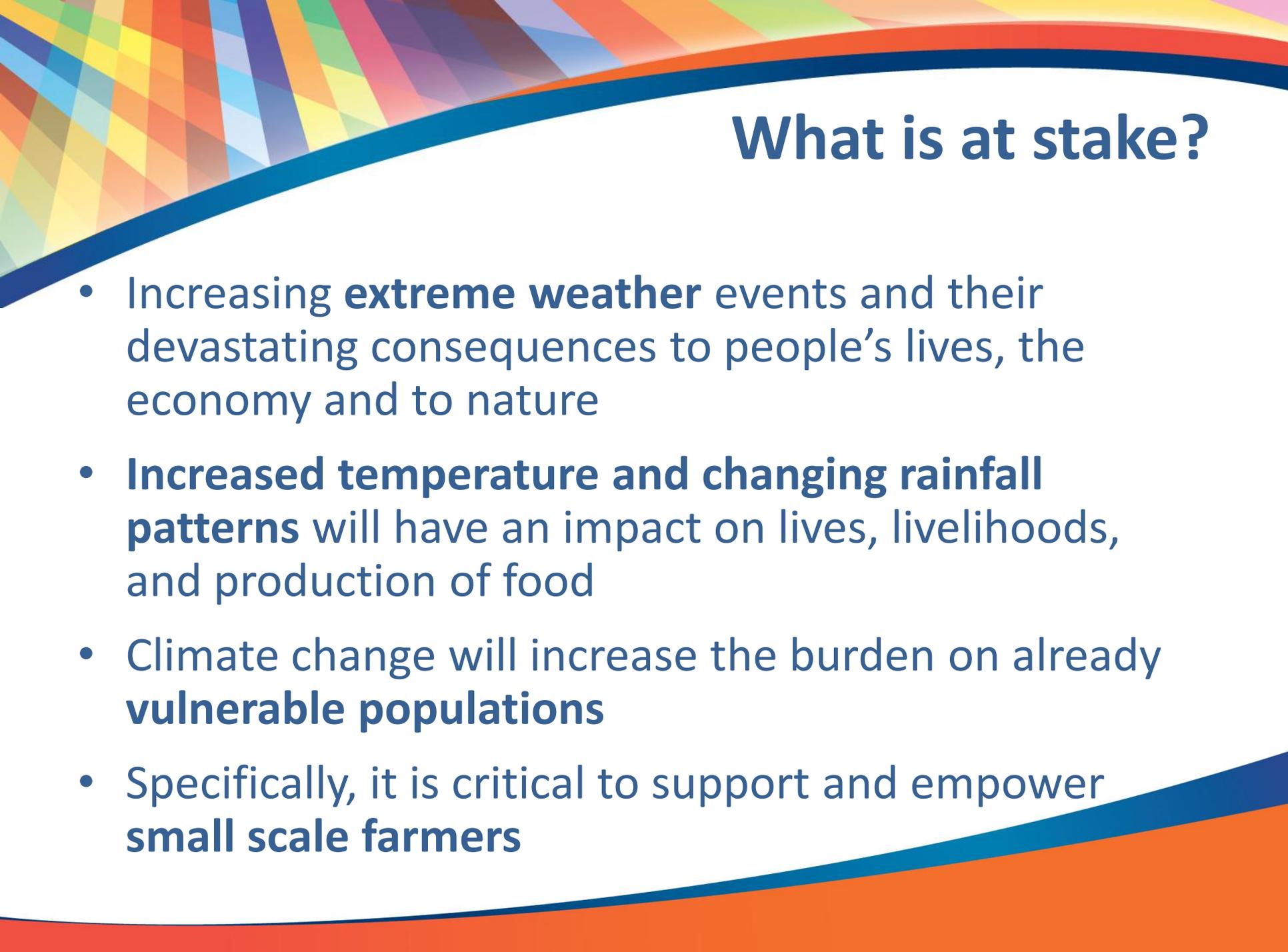
Hunger in developing countries 1990–2012

1990–92: 980 million



2010–12: 852 million

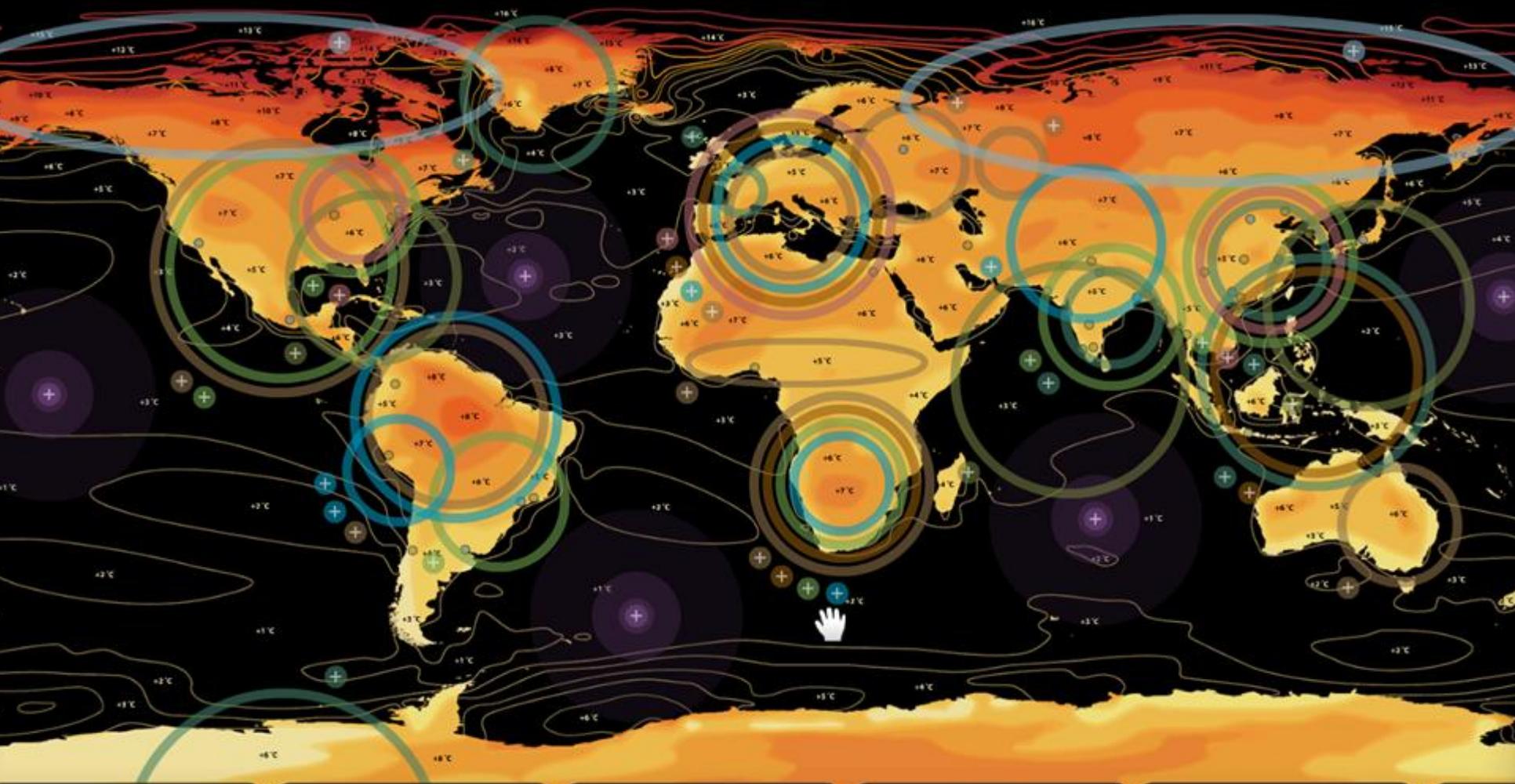




What is at stake?

- Increasing **extreme weather** events and their devastating consequences to people's lives, the economy and to nature
- **Increased temperature and changing rainfall patterns** will have an impact on lives, livelihoods, and production of food
- Climate change will increase the burden on already **vulnerable populations**
- Specifically, it is critical to support and empower **small scale farmers**

The impact of a global temperature rise of 4°C (7°F)



- The Amazon Forest ▲
- Agriculture ▲
- Water availability ▲
- Sea-level rise ▲
- Carbon cycle ▲
- Temp ▲



- Water Availability
- Sea Level Rise
- Marine
- Drought
- Permafrost
- Tropical Cyclones
- Extreme Temp
- Health

+ °Celsius

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 2 | 4 | 5 | 7 | 9 | 11 | 13 | 14 | 16 | 18 | 20 | 22 | 23 | 25 | 27 | 29 |

+ °Fahrenheit

Source: UN Statistics Division Demographic



Two goals of our time

1. Achieving food security

- 870 million hungry
- Food production should increase 60-70% by 2050
- Adaptation to climate change critical

2. Avoiding dangerous climate change

- "2 degree goal" requires major emission cuts
- Agriculture sector, including forestry = 30% of emissions..
- ..and must be part of the solution

Climate-smart agriculture

3 pillars

SUSTAINABLY INCREASES

PRODUCTIVITY AND INCOME



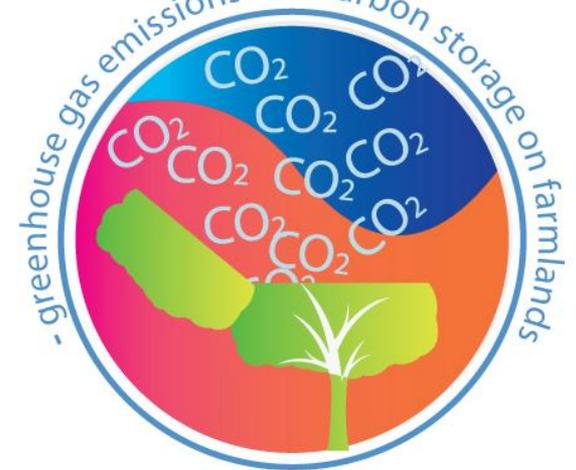
STRENGTHENS RESILIENCE

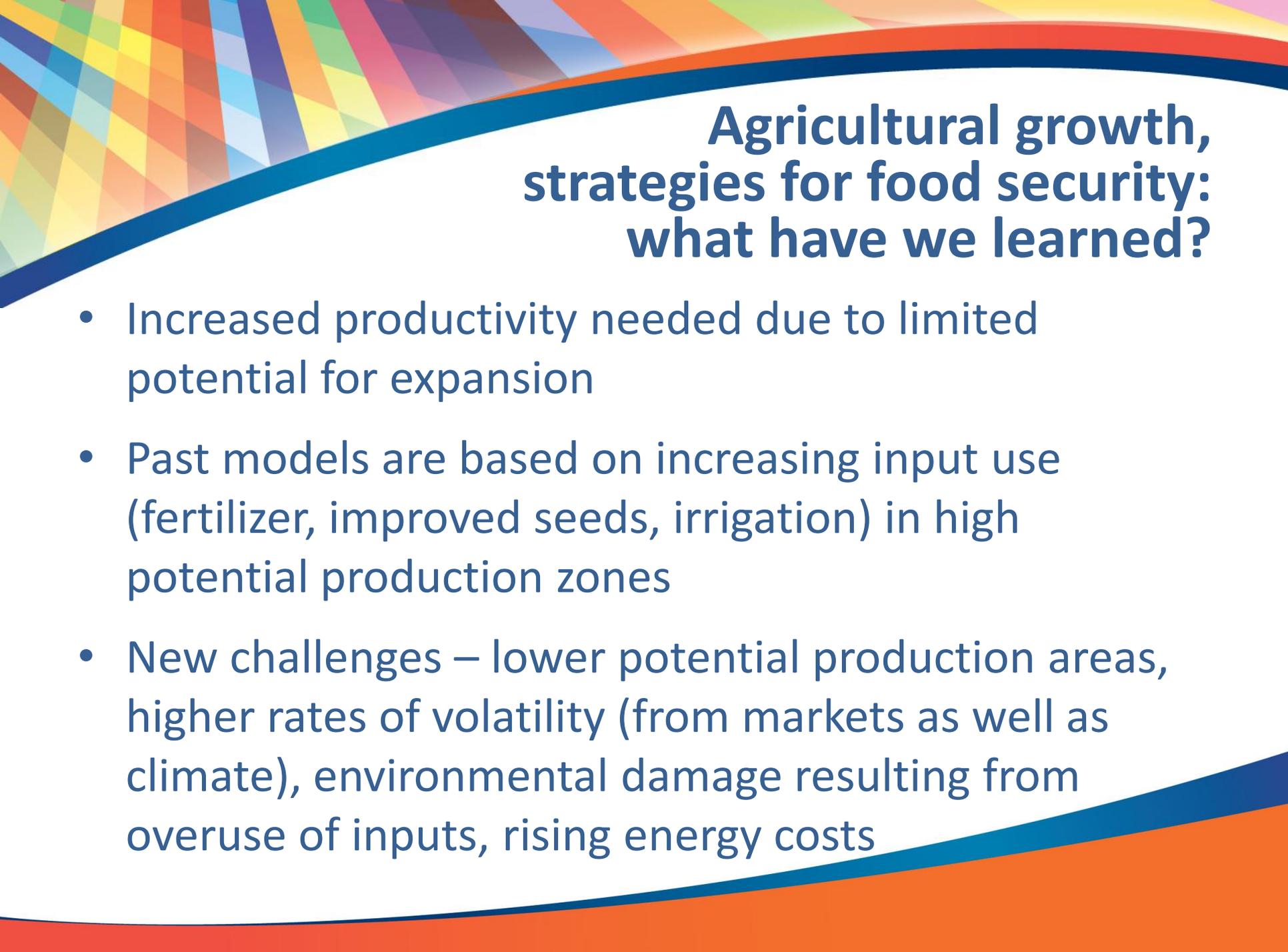
TO CLIMATE CHANGE AND VARIABILITY



REDUCES AGRICULTURE'S
CONTRIBUTION TO CLIMATE CHANGE

- greenhouse gas emissions + carbon storage on farmlands





Agricultural growth, strategies for food security: what have we learned?

- Increased productivity needed due to limited potential for expansion
- Past models are based on increasing input use (fertilizer, improved seeds, irrigation) in high potential production zones
- New challenges – lower potential production areas, higher rates of volatility (from markets as well as climate), environmental damage resulting from overuse of inputs, rising energy costs



Why is action needed now?

Agricultural growth is key to reducing food insecurity

- Agriculture sector is the main source of livelihoods of the world's food insecure
- The largest growth in projected populations is expected in agricultural-based economies that already have high food insecurity
- Agricultural growth is needed not only to increase food supply, but to increase the incomes of poor producers and rural populations to also increase their access to food

Why is action needed now?

Negative CC impacts are projected for agricultural-based poor areas - adaptation is necessary

- adverse impacts of climate change will increase difficulty of obtaining needed agricultural growth.

IPCC: Africa to be hit the hardest

Current emission growth indicates urgent priority of adaptation

- If emissions are continuing to increase, the 2 degree goal will not met.
- Agriculture can increase production and has a potential to mitigate at the same time. New investments have to consider both.



What is needed?

- Climate change adaptation must be incorporated in strategies to achieve agricultural development goals (building resilience in the entire food system – not just production systems)
- Incorporating mitigation into planning/strategies can offer potential for additional financing, e.g. think of broader ecosystem services from agriculture

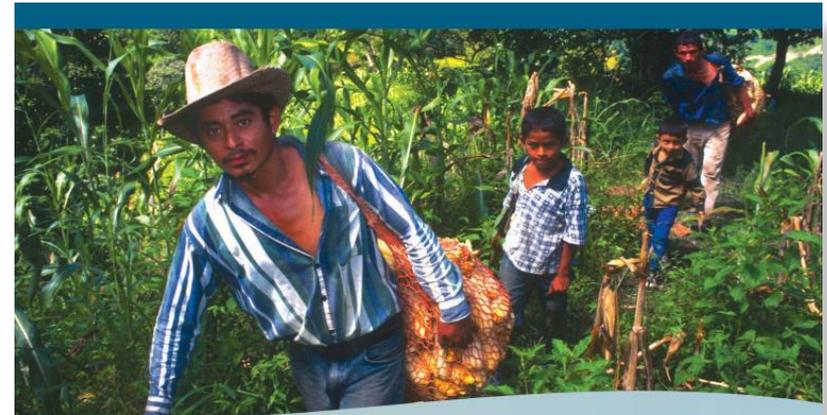


Technical support provided by Rome based agencies and other partners

1. Data and knowledge for impact and vulnerability assessment and adaptation
2. Institutions, policies and financing to strengthen capacities for adaptation
3. Sustainable and climate-smart management of land, water and biodiversity
4. Technologies, practices and processes for adaptation
5. Disaster risk management
6. Etc.

Adaptation is critical for agriculture and food security

- Climate change adaptation is critical for agriculture and food security
- Adaptation is addressed all across the agriculture, forestry and fisheries sectors.
- FAO-ADAPT brings together FAO's efforts on adaptation: coordinated resource mobilization and programming.
- It also reinforces climate-smart agriculture.



Sustainable Agriculture, Food Security and Climate Change

How can climate-smart approaches help to build
resilience in food security and agriculture?

Side event questions:

1. How can climate-smart approaches be used to build resilience in food security and agriculture?
2. What are the barriers to scaling-up climate-smart practices, and how can they be overcome?
3. How can the poorest and most vulnerable benefit from climate-smart approaches?

