Damage and Loss from Disasters in Agriculture
Data and information to build resilience

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Tracking of hazardous events and disaster losses and damages
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FAO recent work on Damage and Loss from Disasters

• Methodology to monitor the Sendai Framework Indicator C2 and SDG Indicator 1.5.2 -- e-learnings; operational software
• Capacity Development – regional and national workshops
• Global modelling, based on counterfactuals
• More on nexus with Climate Change, in the pipeline
• Leverage technical expertise on sub-sectors (crops, livestock, fisheries, aquaculture, forestry)
• Data collection through questionnaires to member countries
FAO proposed methodology to measure D&L in agriculture

Measuring of the value of **direct loss** attributed to disasters in the crops, livestock, fisheries, aquaculture and forestry sectors, together with the **value of lost agricultural assets**.

Methodology is used to track progress of:

- **SFDRR indicator C2**: *Direct agricultural loss attributed to disasters*
- **SDG indicator 1.5.2**: *Direct disaster economic loss in relation to GDP*
FAO proposed methodology to measure D&L in agriculture

Key features of the FAO Damage and Loss Methodology

The three components of the D&L methodology

- **Production (PD)**: Value of destroyed stored inputs and production outputs (e.g., stored harvest, standing crops/trees, dead livestock).
- **Assets (AD)**: Cost to replace or repair damaged or destroyed assets (e.g., equipment, cost to clean up damaged forest).
- **Loss (PL)**: Difference between expected and actual value of production (e.g., loss of fish capture when boats can't go to sea). Value of destroyed standing crops. Post-disaster maintenance costs.

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Linking disasters and Climate Change -- pipeline

UNFCCC – climate change agenda (L&D)

- Crop models
- WIM
- Slow-onset events
  - Sea level rise
  - Glacial retreat
  - Desertification
- Extreme events
  - Drought
  - Flooding
  - Storm

Impact attribution

Geophysical

Climate-related

Technical

Biological

Environmental

Sendai framework C2 indicator
Challenges, opportunities and way forward

- Enhance capacity development on Damage and Loss data system for agriculture and its sub-sectors – support the reporting on international frameworks (Sendai, the SDGs)

- Connect existing data collection efforts – agricultural data, disaster data systems; link to large-scale ag data projects (the 50 by 2030 initiative), climate change Loss and Damage information

- Support regular data collection on extremes – not only post-disasters

- Use of data for policy design: inform interventions to enhance multi-risk resilience of agri-food systems
  - Return on investment from risk-informed anticipatory action in agriculture is up to 7:1
  - Benefits from farm-level disaster risk reduction and climate-smart agriculture good practices on average are 2.2 times higher than from previously used farming practices
Thank you for your attention