Multiple Benefits, No Regrets
Leaving no one behind through DRR in Agriculture
Currently **2.5 billion people** worldwide depend on agriculture for their livelihoods. The majority of them are vulnerable **smallholders** who are often **left behind**.

People dependent on agriculture are not only victims of disasters but also **integral to addressing risks**.

Agriculture plays a critical role in ensuring that affected people **maintain access to food and livelihoods** during and after disasters.
THE IMPACT OF NATURAL HAZARD-INDUCED DISASTERS ON AGRICULTURE

Impacts of drought hit agriculture the most

Figure 1. Damage and loss in agriculture as share of total damage and loss in all sectors (2006-2016)

Disaster damage in agriculture, share of total: 16%
Disaster loss in agriculture, share of total: 31%
Disaster damage and loss in agriculture, share of total: 23%

The impacts and crises on agriculture and food security

The Impact of disasters and crises

2017
Food and Agriculture Organization of the United Nations

83%
Agriculture offers cost-effective, sustainable solutions to reduce disaster risks and enhance resilience.

When farmers apply DRR practices, their returns are 2.2 x higher
UGANDA

Banana cultivation with mulching, contour trenches, organic composting and improved varieties
PHILIPPINES
Upscaling of multi-stress tolerant Green Super Rice varieties in Bicol region

Difference in returns from rice production, GSR upscaling vs previous practice scenario

<table>
<thead>
<tr>
<th></th>
<th>Low hazard frequency</th>
<th>Medium hazard frequency</th>
<th>High hazard frequency</th>
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<tbody>
<tr>
<td><strong>Dry season</strong></td>
<td>+25.1%</td>
<td>+26.7%</td>
<td>+71.2%</td>
</tr>
<tr>
<td><strong>Rainy season</strong></td>
<td>+29.5%</td>
<td>+28.6%</td>
<td>+41.6%</td>
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- Potential **avoided disaster losses** between an estimated **USD 33 and USD 129 million** per season

- GSR dissemination now incorporated by government into **national rice commodity flagship programme**, for upscaling.
FAO EARLY WARNING EARLY ACTION

The system consolidates existing vulnerability, forecast and agriculture-specific information to allow effective early warnings.

Phased thresholds are established to trigger anticipatory actions.

Early actions are disaster risk management interventions that protect and build on development efforts.
EVIDENCE ON THE EFFECTIVENESS OF ACTING EARLY

For every USD 1 spent on interventions, households had a return of:

**KENYA**

- **Risk:** Drought 2016/17
- **Triggers:** Below average rainfall forecast; unusual livestock movements
- **Early Actions:** Livestock feed; drugs and vaccines

**MONGOLIA**

- **Risk:** 'Dzud' 2017/18
- **Triggers:** Below average cereal production, heavy snowfall & extreme cold temperature forecast
- **Early Actions:** Destocking; livestock feed; meat distribution in poor urban households

**MADAGASCAR**

- **Risk:** Drought 2017/18
- **Triggers:** Consecutive poor harvests, below average rainfall forecast, IPC projections
- **Early Actions:** Short-cycle seeds, water equipment, micro-irrigation systems, crop diversification

**SUDAN**

- **Risk:** Drought 2017/18
- **Triggers:** Below-average rainfall forecast, unusual livestock movements, decrease in livestock prices
- **Early Actions:** Livestock feed; drugs and vaccines
Disaster risk reduction good practices in agriculture are highly context- and location-specific. They must offer added value in both hazard and non-hazard situations.

Prevention measures in agriculture are most in context of high- to medium-frequency events – with limited or medium intensity. These hazards do often not trigger higher level response while having strong impact on the most vulnerable. In those events the risk of leaving victims behind is huge.

Farm-level DRR should be widely promoted and implemented at much larger scales. It lies at the heart of sustainable development, offering multiple opportunities for vulnerable families. We need to systematically enhance these good practices by including them into national/local DRR strategies and sectoral development strategies.