

Climate Resilient Agriculture: An approach to Development Programming

Climate Change, Agriculture and Food Security Conference

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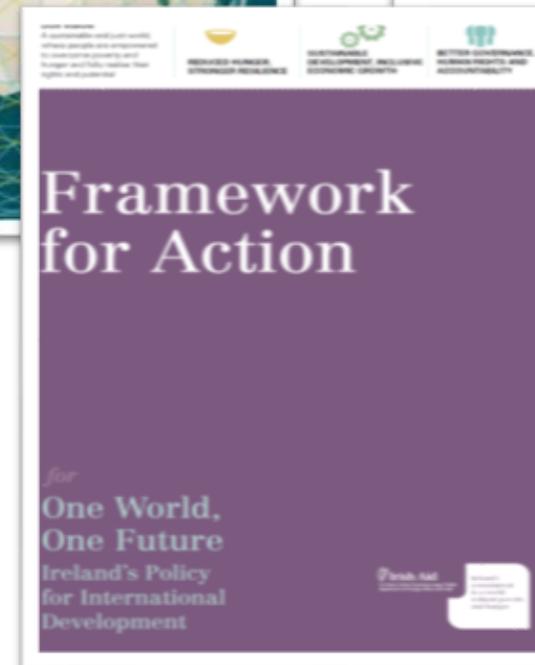
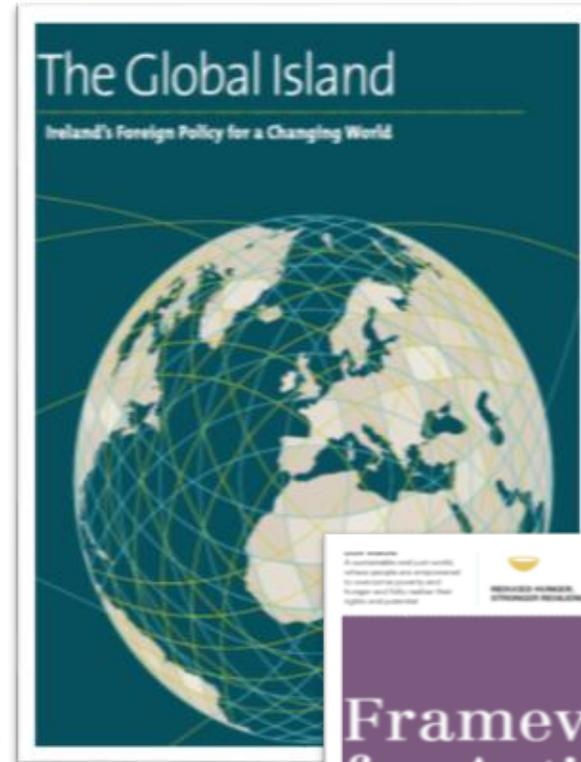
Smallholder farming and climate resilient agriculture: Issues for development programming

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- **The status and context of smallholder farming**
- **The drivers, factors and trends of climate resilience in smallholder farming**
- **Ways to integrate climate change into development programming for smallholder farming**

Irish Aid's Policy Environment

- **Global Island**
- **One World, One Future (OWOF)**
- **OWOF's Framework for Action**



Building Resilience





What do we mean by resilience in Smallholder Farming?

- **Climate resilient Smallholder Farming will be better prepared to adapt to, better able to cope with, and better placed to recover from, climate risks**
 - **Climate resilience of Smallholder Farming is the concern of people, communities and states that face increased vulnerability, risks and uncertainties**
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The status and context of smallholder farming

- Smallholder farming generates 80% of food produced in Asia and Sub-Saharan Africa and are the majority of the poorest and hungry
- Fragmentation of land-holdings has reduced farm size.
- Larger farms are advantaged by technology and market-orientation.
- Smallholder farmers affected by access to and control over assets and institutions, power structures, and market policies.



Lack of an evidence base – very, very few impact evaluations of interventions for Smallholder Farmers

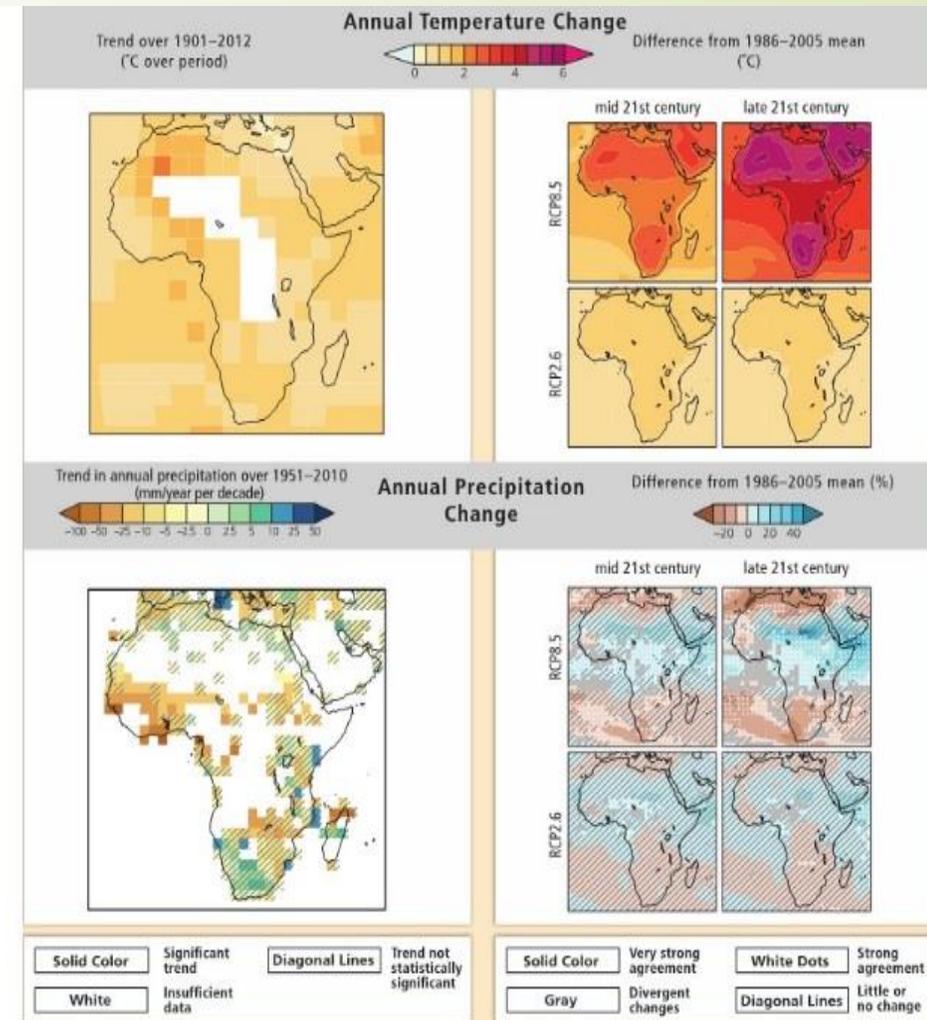


Agricultural input innovations can increase the nutritional status of smallholder farmer households and, to a lesser degree, incomes.

But conventional training programmes were not found to increase yields

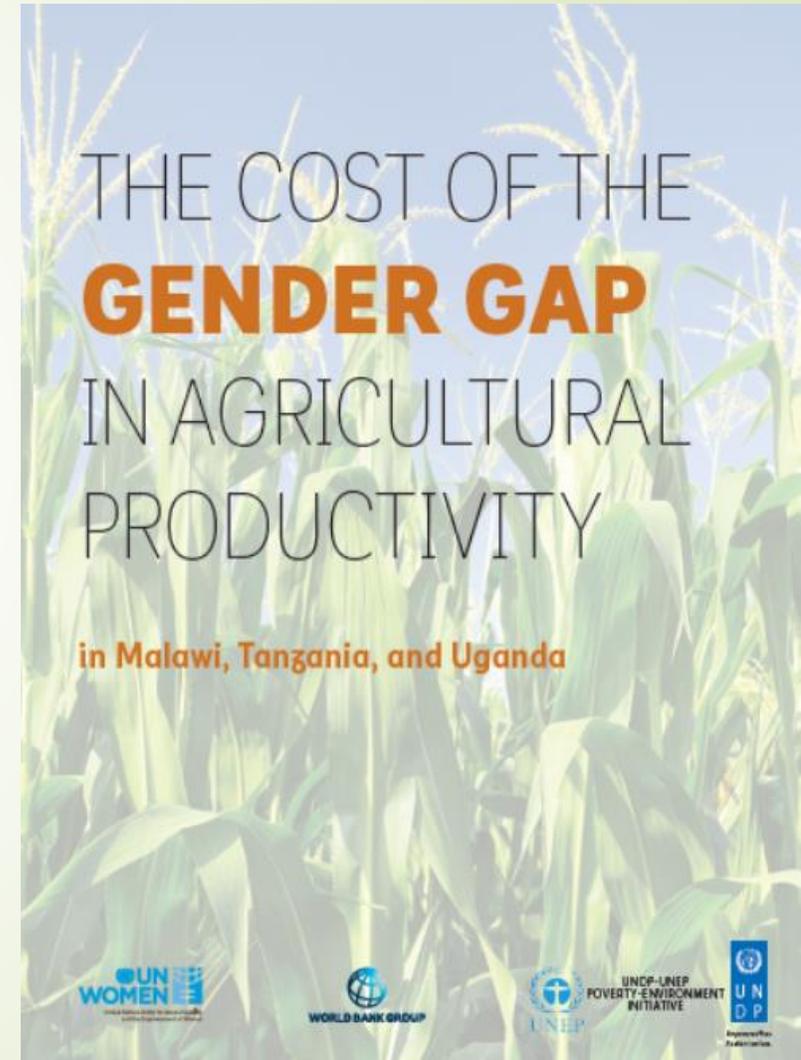
The drivers, factors and trends of climate resilience in smallholder farming

- Trade-offs to be understood and made between the integrity of natural ecosystems and how agroecosystems are managed for livelihoods (incl. habitat modification, extraction of natural resources, and the use of external inputs)
- Scientific consensus that the risks to smallholder farming will escalate and that this will increase vulnerability, particularly in the Least Developed Countries



Climate and Gender

- **Smallholder farming is the main livelihood activity of 80 percent of women in LDCs, and there are estimated to be 600m women small livestock keepers. But female-headed smallholder farmer households tend to lack labour for agriculture and income earning activities**
- **UN Women study in Malawi, Tanzania and Uganda – gender-based inequalities in access to and control of productive and financial resources inhibit agricultural productivity and reduce food security**



Trajectories for smallholder farming livelihoods

2016 Global Food Policy Report

- Smallholder Farmer households are not a homogeneous group ... but are rather a diverse set of households living in different types of economies. As a result, small family farmers can prosper either through a “move up” or a “move out” strategy
- While some small farmers have the potential to undertake profitable commercial activities in the agricultural sector and expand their farm operation, others should be supported in exiting agriculture and seeking nonfarm employment opportunities

Options for integrating climate risks management into development programming for smallholder farming

Level	State	Pressures	Responses	Development programming opportunities that integrate climate risk management
Smallholder farming households	Highly differentiated Complex, diverse and risk prone	Socio-economic and environmental incl. climate shocks, cycles and trends	Dropping off	<ul style="list-style-type: none"> • Adaptive social protection – PWP, CT etc.
			Hanging in to Stepping up	<ul style="list-style-type: none"> • Participatory and gender sensitive development of climate resilient agricultural technologies; • Engagement of farmers' organizations, particularly for women farmers, in adaptation processes; • Innovative financial services in support of climate adaptation
			Stepping out	<ul style="list-style-type: none"> • Education and training for nonfarm employment; • Supported migration to urban centres and other agriculture areas with greater profit potential • Flexible arrangements for land transfer
Smallholder farming	Highly differentiated Complex, diverse and risk prone	Socio-economic and environmental incl. climate shocks, cycles and trends	Support	<ul style="list-style-type: none"> • All-weather communications infra-structure; • Landscape level investments in water resources, soil conservation, afforestation; • Climate information services
			Ignore/ marginalise	
Agriculture Sector and National	Agriculture-based, Transforming, Transformed	Internal/ external food commodity demand Erratic input and commodity prices	Productivity and national food security	<ul style="list-style-type: none"> • Investment in climate-proofed infrastructure; • Climate resilient agricultural R&D, and extension
			Competitiveness and exports	



Hanging in to Stepping up

- **Participatory and gender sensitive development of climate resilient agricultural technologies;**
- **Engagement of farmers' organizations, particularly for women farmers, in adaptation processes;**
- **Innovative financial services in support of climate adaptation**

Support

- **All-weather communications infra-structure;**
- **Landscape level investments in water resources, soil conservation, afforestation;**
- **Climate information services**

Productivity and national food security

- **Investment in climate-proofed infrastructure;**
- **Climate resilient agricultural R&D, and extension**

Steps in integrating climate resilience into Agriculture programming for Smallholder Farming

1. Entry Point & Screening

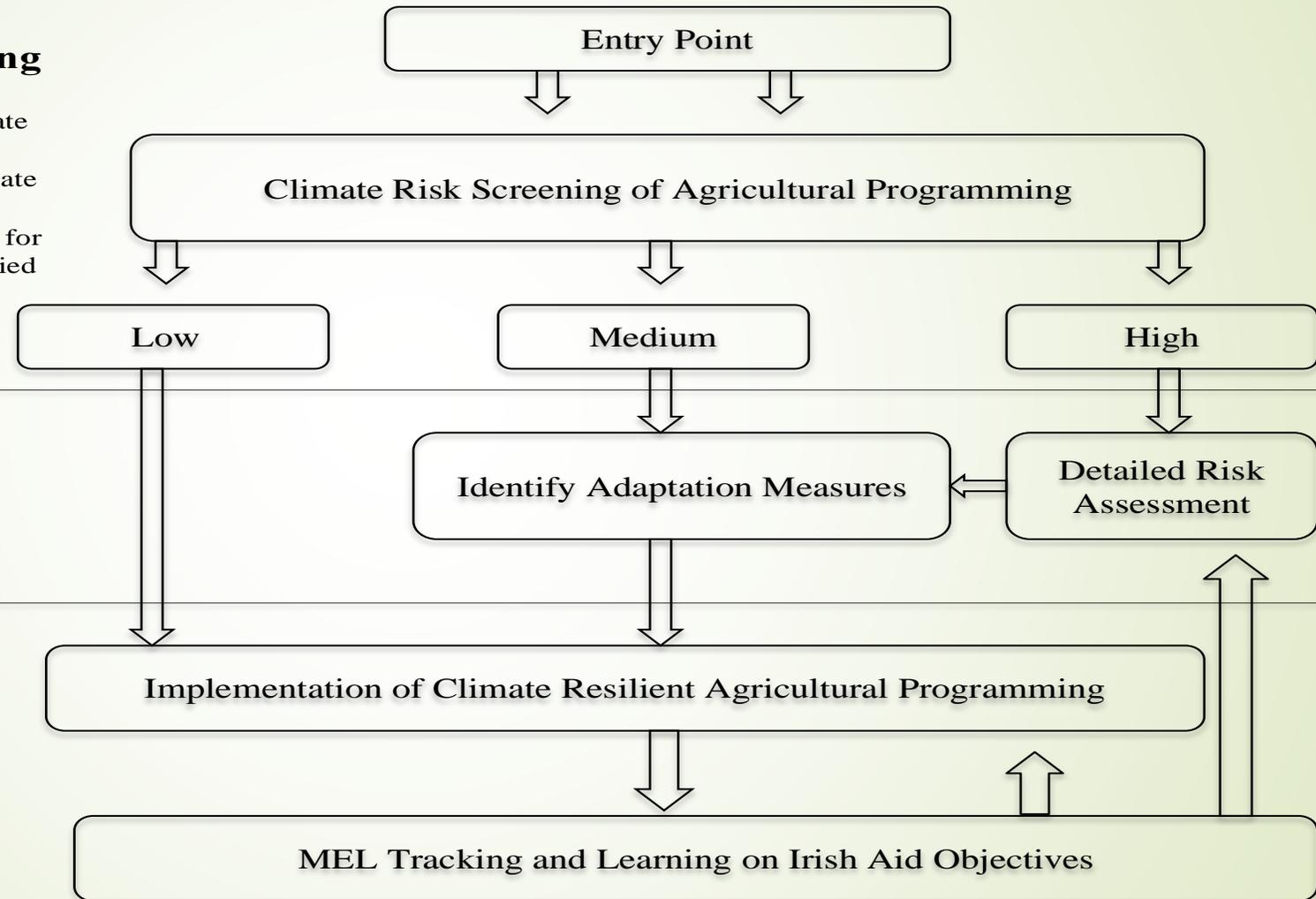
-  Establish Practical and Effective Entry Point for Integrating Climate Considerations
-  Identify Present and Future Climate Conditions
-  Identify Risks and Opportunities for Crops and Livestock over Specified Timescales

2. Adaptation Options

-  Develop Resilient Crop and Livestock Options
-  Compare Options based on Climate Risk versus Monetary Return

3. Implement, Monitor, Evaluate & Learn

-  Implement Agricultural Programme
-  Design M&E System
-  Collect Data on Chosen Resilience Indicators
-  Assess Performance
-  Feedback into Learning Mechanisms





Key considerations: activities supporting climate resilience of Smallholder Farmers

- The precise way climate becomes hazardous in relation to the cropping or livestock activity
- Establish practical and feasible methods to reduce the effect of identified hazards on cropping and livestock activities, ensuring facilitation (via inputs and training) of the most effective options available given resource and technological constraints
- Establish timescales of programme and hazard timescales
- Screening for measures that potentially exacerbate social vulnerability in medium-long term
- Consider the input requirements from Smallholder Farmer households to ensure measures are feasible and preferable to farmers



Learn from what works in practice for Smallholder Farming

- Document smallholder farming experience in Sub-Saharan Africa**
- Strengthen local research capacity**
- Identify what works for farmers**
- Inform National and International policy frameworks – for decision making**