

# Climate Risk Management at USAID

Workshop on the Strategic Alignment in Climate, Agriculture, and the Environment Malawi - October 24-28, 2016

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# Climate Risk Management (CRM) at USAID

### • Executive Order: Climate Resilient International Development

- What it says
- When it was/is it implemented
- What does it require from you

### Climate Risk Management

- Purpose
- Process
- Resources

### • Environmental Impact – Climate smart ≠ Environmentally sound

- Water
- NRM
- Pesticides
- Protected Areas



"There's one issue that will define the contours of this century more dramatically than any other, and that is **the urgent and growing threat of a changing climate**." – **President Barack Obama** 



### **Climate Resilient Executive Order:**

"requires the integration of climate-resilience considerations into all United States international development work to the extent permitted by law." – EO 13677, Section 2

- Assess and evaluate climate-related risks to and vulnerabilities in agency... investments... overseas facilities
- Adjust programs, projects, investments based on climate assessments
- "Incorporate climate-resilience considerations into agency ... investments, and related funding decisions, including the planning for and management of overseas facilities"
- Signed September 2014
- Required for:
  - Strategy level October 2015
  - Project/Activity level October 2016







### Climate Risk Management (CRM):



- USAID defines Climate Risk as "the potential for negative consequences due to changing climatic conditions where the outcome is uncertain."
- In response to EO 13677, USAID now requires CRM Screening at both the STRATEGY <u>and</u> PROJECT/ACTIVITY level
- CRM at USAID: the process of assessing, addressing and adaptively managing climate risks





CRM within the USAID Program Cycle











# **CRM IS ITERATIVE!**

At each stage of the program cycle Step 1: Assess the risks

- Identify risks
- Evaluate as low, moderate or high

Step 2: Address them by

- Integrating risk management measures
- Identify steps for future stages
- Accept risks

#### CRM should be "fit to purpose"







# **Climate Risk Management Requirements**

### This table will go into/accompany the project/activity IEE:

Defined or Anticipated Project Elements (Purpose/Su b- purpose, Areas of Focus, or Activities/ Mechanisms, etc.)	Climate Risks List key risks related to the project elements identified through either the strategy- or project-level climate risk assessment	Risk Rating Low/ Moderate /High	How Risks are Addressed at Project Level Describe how risks have been addressed a the project level. If a decision has been made to accept the risk, briefly explain why.	Further Analysis and Actions for Activity Design/ Implementation Describe CRM measures to be integrated into activity design or implementation, including additional analysis, if applicable.	Opportunities to Strengthen Climate Resilience Describe opportunities to achieve development objectives by integrating climate resilience or mitigation measures.



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The CRM Screening Tool, and subsequent process allows USAID to:

- Identify risks and adaptive capacity
- Rate level of risk and identify opportunities to manage or reduce it
- Select management options and determine next steps
- Accept residual risks



# **CRM Screening Tool**





# Climate Risk Management: Malawian Context

#### Impacts from Climate Change in Malawi

- Extreme rainfall in early 2015 led to severe floods
- El Nino droughts in late 2015/2016
- Increased exposure to extreme weather conditions; six very wet and five very dry summers between 1997 and 2011
- Current trends and future scenarios suggest decreasing rainfalls leading to increased prevalence of droughts.





Source: Government of Norway, Climate Change in Malawi http://www.norway.mw/norway\_malawi/News-from-Malawi/News/Climate-change-in-Malawi---effects-and-responses-/#.V\_2NE\_krKM8





## How do Climate Impacts Inform Climate Risks?

The Intergovernmental Panel on Climate Change (IPCC) defines Climate Change Impacts as:

"The effects of climate change on natural and human systems. Depending on the consideration of "adaptation", one can distinguish between potential impacts and residual impacts:

- Potential impacts: all impacts that may occur given a projected change in climate, without considering adaptation.
- Residual impacts: the impacts of climate change that would occur after adaptation"



### **Climate Risk to Mitigation Measure in Malawian Context**

#### **Climate Impacts**

#### **Climate Risks**

- Extreme rainfall in early 2015
- Six very wet and five very dry summers between 1997 and 2011
- Current trends and future scenarios suggest decreasing rainfalls leading to increased prevalence of droughts

- Increased risk of floods;
- Extreme weather patterns lead to increased risks of floods/droughts.
   Unpredictable precipitation risks crop failures due to improperly timed planting
- Increased prevalence of droughts leads to increased risk of food shortage due to crop failure and/or difficulty sustaining livestock

#### **Mitigation Measure**

- Site new fields to minimize flooding, use flood resistant crops/seeds, utilize water harvesting techniques to capture water/decrease erosion
- Supplement rainfall with irrigation, plant a variety of crops with different needs, utilize water harvesting techniques to capture water/decrease erosion
- Utilize water harvesting techniques to capture water/decrease erosion





## **Environmental Impact Concerns**

Water irrigation: the major environmental concerns are with surface/ground water levels and quality; upstream/downstream effects; the use of "local stones" for construction, which risks riverbed damage; and whether or not qualified engineers are involved with project design.

**Roads and Disaster Risk Reduction**: concerns with the lack of specificity in activity descriptions



**Protected Areas and Agriculture Land** 

**Expansions**: the major concerns are that the successful support to crops such as coffee, tea and macadamia might drive conversion of protected or high-value forests

**NRM**: Major concerns here are with the improper use of pesticides, downstream ecosystem changes, negative impacts on sensitive areas, and the potential use of invasive species. The scale and scope of these activities are also unclear (i.e., number of ha to be reforested and the percentage to be used for wood versus habitat).

**Pesticides**: the concerns here are for habitat loss (successful support to certain crops could drive conversion of high-value protected areas), risks of counterfeit agrochemical use, water quality degradation, and negative impacts on human health.



# Climate and Environmental Risk Screening for Agricultural Programming in Malawi REMINDER: Impacts and

**Example:** A Malawi Agriculture Development Project is being designed and will be implemented to address the following objectives:

- Increase Agricultural Productivity through:
  - Dissemination and use of improved seed and crop varieties
  - 2) Adoption of agricultural best management practices
- Increase linkages between and across actors along the value chain

**REMINDER:** <u>Impacts</u> and <u>Risks</u> from Climate Change in Malawi

Extreme rainfall leads to increased risk of severe floods
Increased exposure to variable, extreme weather conditions (e.g., hot and dry summers) leads to increased risk of crop failure and/or floods and droughts





# Climate and Environmental Risk Screening for Agricultural Programming in Malawi

**Your turn!** In small groups, spend the next 5 minutes identifying another activity to meet the program objectives and discussing how you would incorporate climate and environmental risk management into the activity planning, design, and implementation.

Example Activity	Incorporating Climate	Environmental Risks	Incorporating Environmental
to Achieve	Risks into Activity		Risk Management into
Objectives	Planning		Activity Design





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