INTRODUCTION TO CLIMATE RISK MANAGEMENT

Blessing Mutsaka/Adam Silagyi

USAID/Zimbabwe

Zimbabwe climate change evidence

Temperature

- Mean annual temperature has slightly increased by approximately 0.6 °C since the beginning of the 20th century.
- There has been an increase in the extreme warm ETCCDI indices (hot days, hot nights, hottest days) and a decrease in the extreme cold indices in recent decades.
- Over last 2 decades there was an increased probability of austral summer heat waves.

Precipitation

- Some evidence of slight decreases in total rainfall amounts coupled with increasing unpredictability in the timing and intensity of rainfall
- Significant droughts have been observed over last 15 years (e.g. in 2001, 2007, 2008, 2015, 2016

Climate variability and change is a cross-cutting issue that can undermine development progress and increase risk and insecurity in developing countries

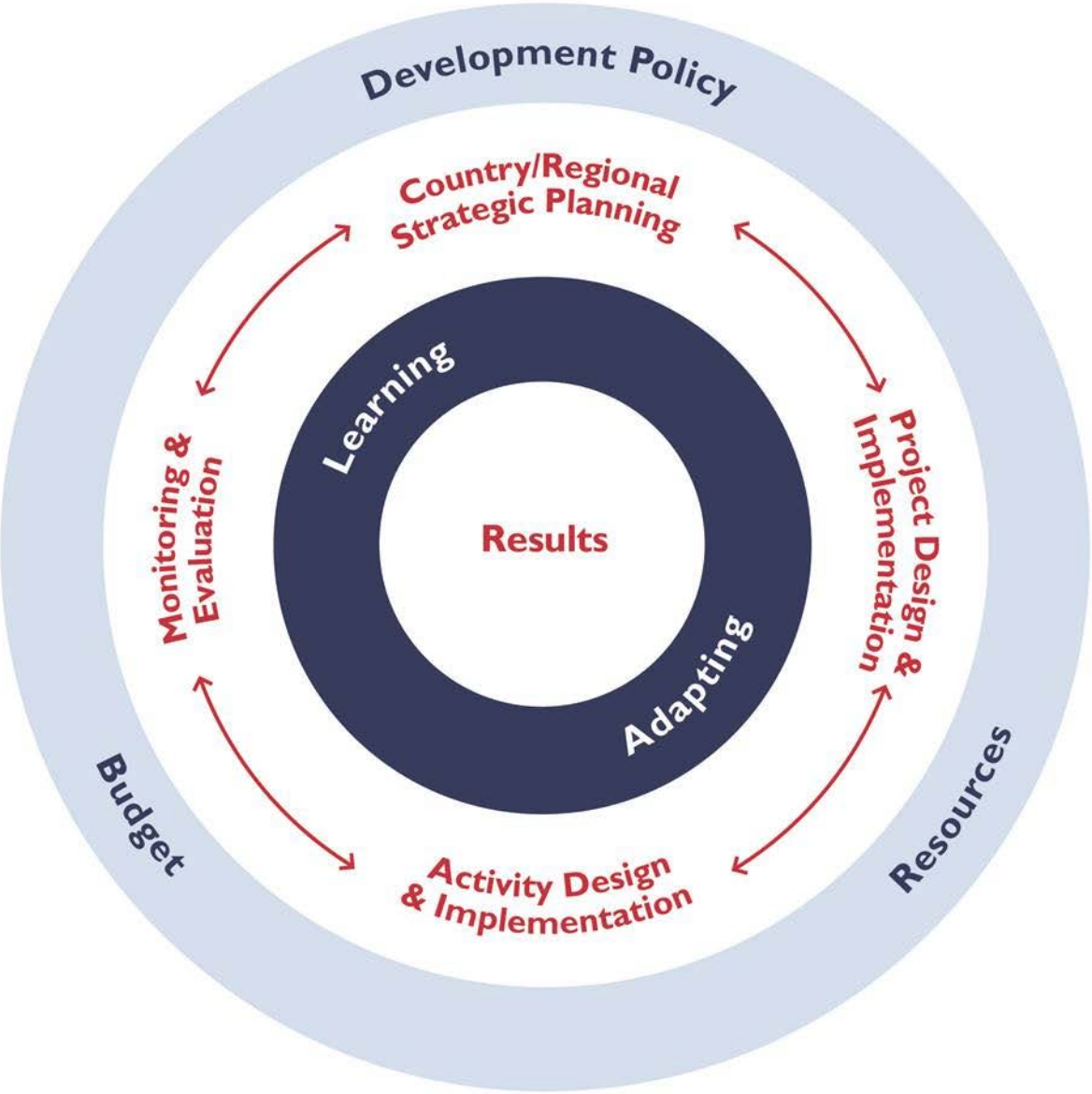
CLIMATE CHANGE MATTERS FOR DEVELOPMENT

CLIMATE SMART DEVELOPMENT =

GOOD DEVELOPMENT

Photo Credit: USAID

WHY INTEGRATE INTO PROGRAM CYCLE?

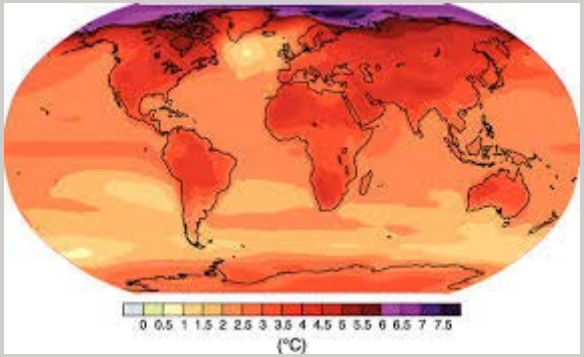


USAID Program Cycle

USAID CRM REQUIREMENTS

- **October 1, 2015**
  - Country/Regional Strategies
- **October 1, 2016**
  - Projects and Activities
  - Agency Policies and Strategies

WHAT IS CLIMATE RISK MANAGEMENT (CRM)?



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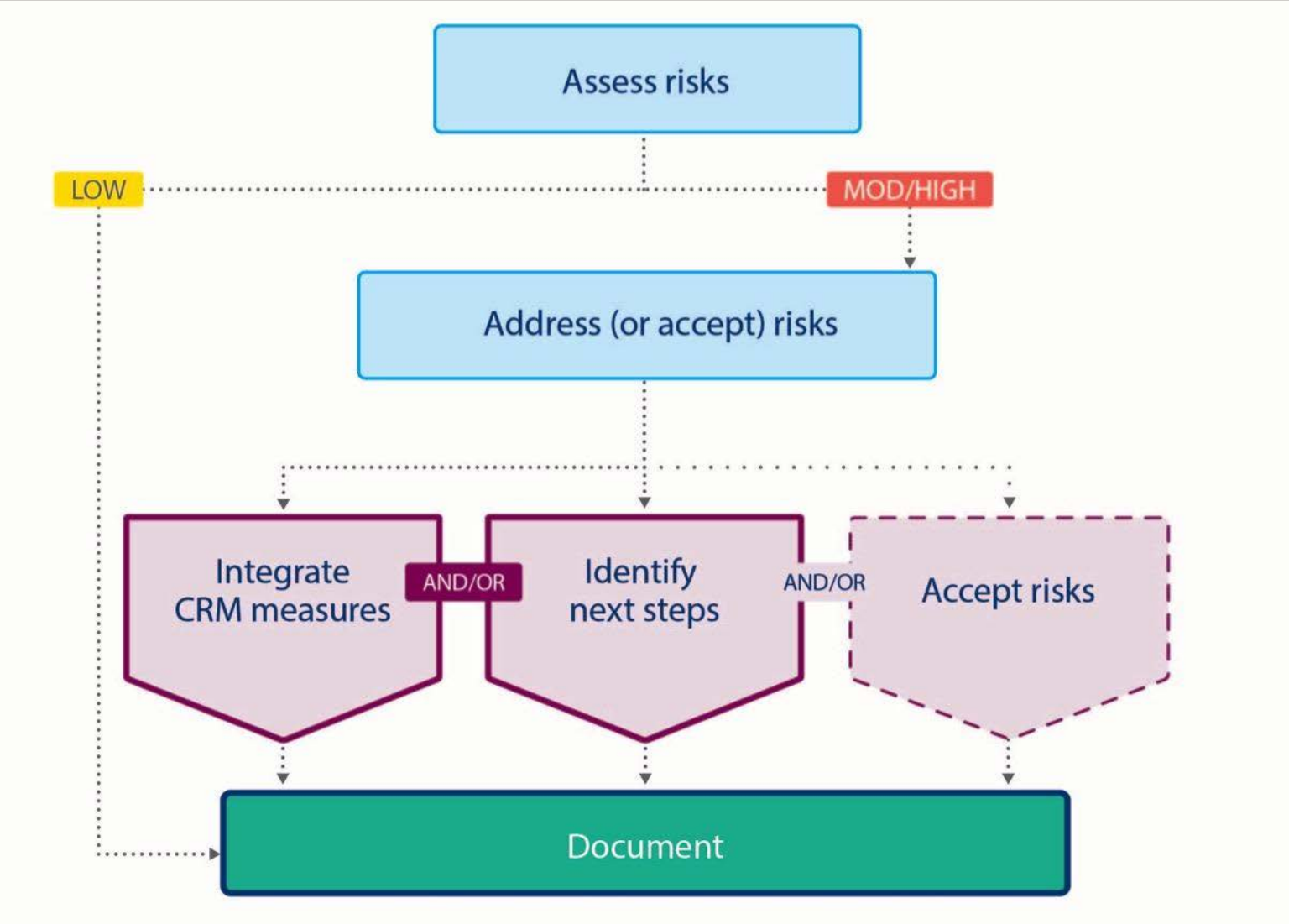


CRM IS ITERATIVE!

At each stage of the program cycle

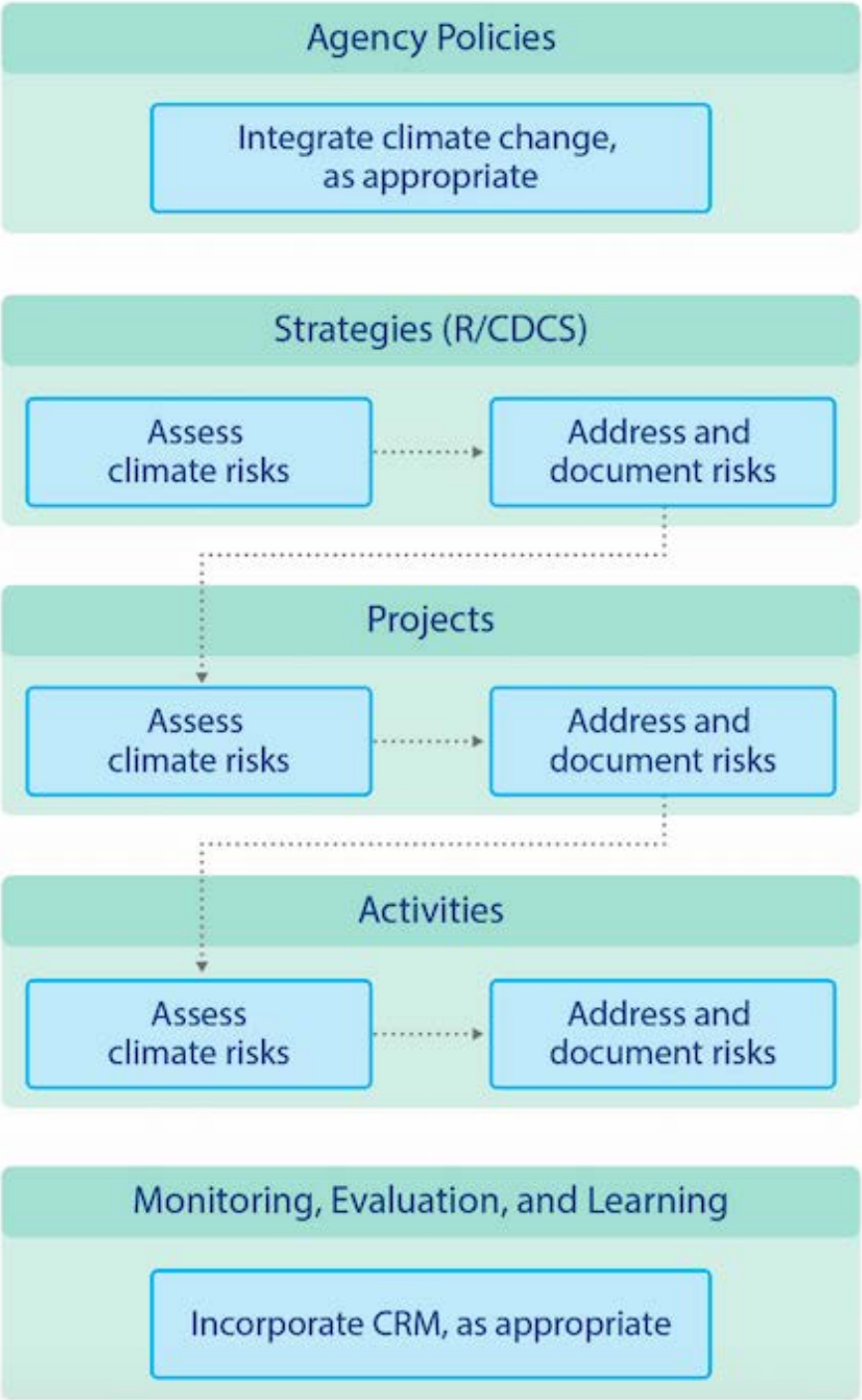
Step 1: Assess the risks

- 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"



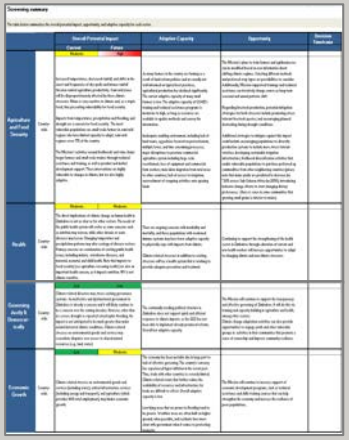
CLIMATE RISK MANAGEMENT PROCESS

OVERVIEW OF CRM PROCESS DURING DESIGN

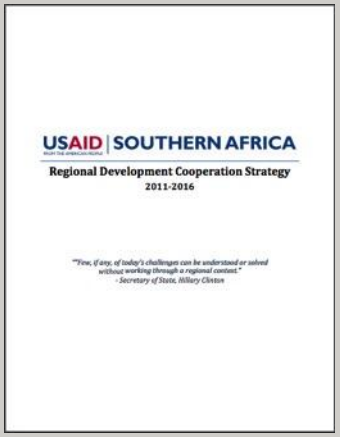
Assess → Address

Review climate info

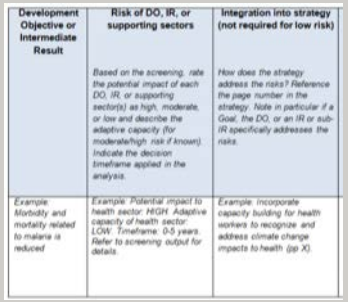
Conduct screening/ analysis



Incorporate

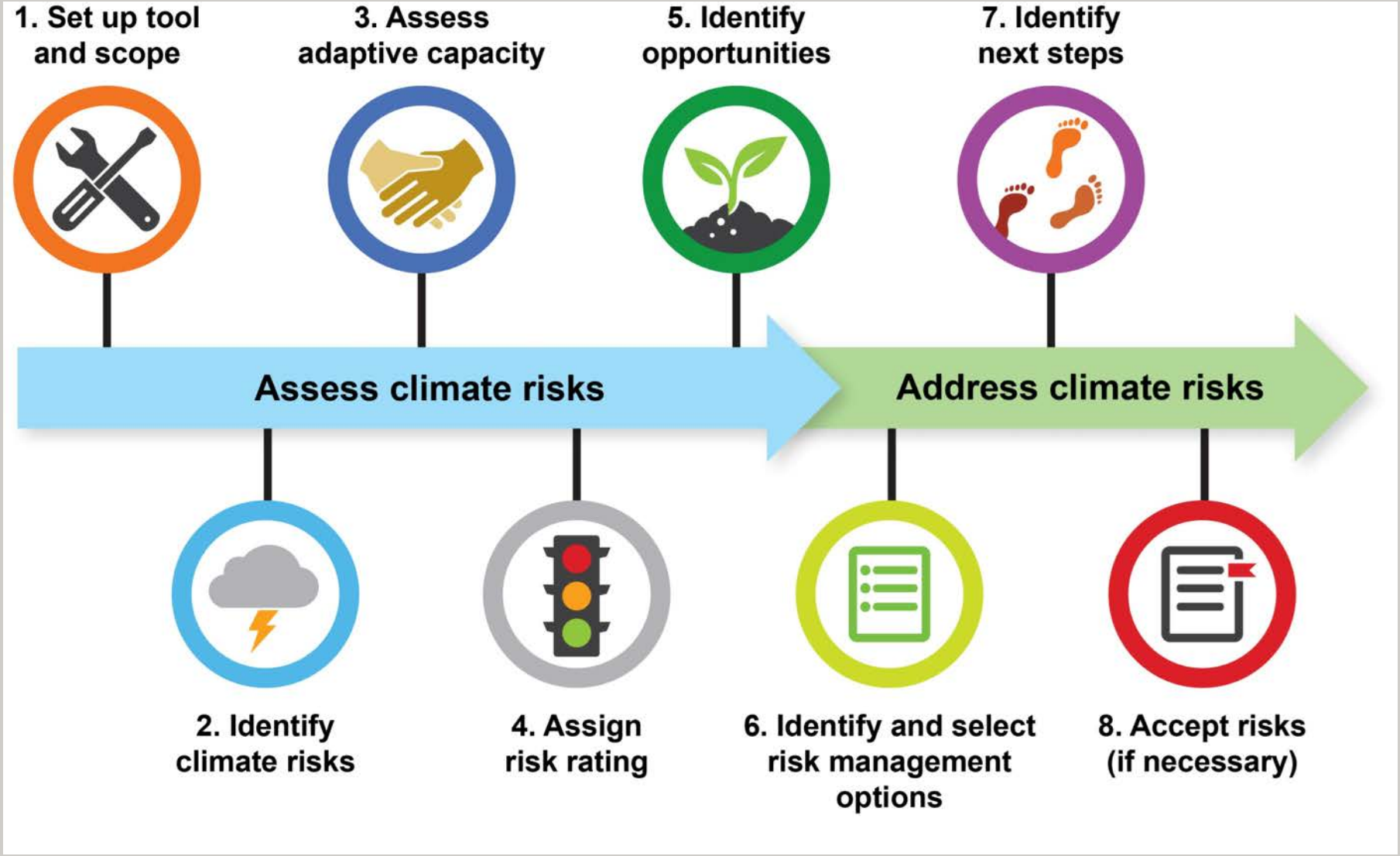


Document



Development Objective or Intermediate Result	Risk of DO, IR, or supporting sectors	Integration into strategy (not required for low risk)
	Based on the screening, rate the potential impact of each DO, IR, or supporting sector(s) as high, moderate, or low and describe the adaptive capacity (for moderate/high risk if known). Indicate the decision timeframe applied in the analysis.	*How does the strategy address the risks? Reference the page number in the strategy. Note in particular if a Goal, the DO, or an IR or sub-IR specifically addresses the risks.*
Example: Morbidity and mortality related to malaria is reduced	*Example: Potential impact to health sector: HIGH. Adaptive capacity of health sector: LOW. Timeframe: 0-5 years. Refer to screening output for details.*	*Example: Incorporate capacity building for health workers to recognize and address climate change impacts to health (pp X).*

CLIMATE RISK SCREENING & MANAGEMENT TOOLS



STRATEGY CLIMATE CHANGE ANNEX TABLE CLIMATE RISKS

- Development Objective or Intermediate Result
- Risk rating of DO or IR (low, moderate, high), including
  - Decision timeframe
  - Adaptive capacity for DO or IR
- Integration into strategy (not required for low risk)
- Next steps (not required for low risk)
- Accepted risks

STRATEGY CLIMATE CHANGE ANNEX TABLE: GHG EMISSIONS

- Sources of GHG emissions, climate change mitigation policies and plans
- Opportunities to reduce emissions
- Integration into strategy
- Next steps

PROJECT AND ACTIVITY LEVELS

- Screening at the strategy level sets the stage for further climate integration at the project or activity level, if indicated by the level of risk
- In many cases, more detailed analysis will be more appropriate as input into the project or activity design process

PROJECT TABLE— to be included in environmental compliance analysis (e.g. IEE)

- Defined or anticipated project elements
- Climate risks
- Risk rating of climate risk
- How risks addressed at project level
- Risks addressed or further analysis to be conducted in activity design/implementation
- Opportunities to strengthen climate resilience

ACTIVITY TABLE— to be included in environmental compliance analysis (e.g. IEE)

- Defined or anticipated task/intervention
- Climate risks
- Risk rating of climate risk
- How risks addressed at activity level
- Opportunities to strengthen climate resilience

https://pages.usaid.gov/E3/GCC/climate-risk-management

Videos

FAQ

RESOURCES AND TOOLS FOR C[illegible] RISK MANAGEMENT

Contents:

- Climate Risk Managemen[illegible]
- Climate Change in USAID Strategie[illegible] Reference for ADS Chapter 201
- Climate Risk Management for USAID Projects and Activities: A Mandatory Reference for ADS Chapter 201
- Agency Notice on Climate Risk Management (Oct 2015)
- Climate Risk Screening and Management Tools
- Climate Risk Profiles and GHG Emissions Fact Sheets
- Climate Integration Leads List

Mandatory References

Tools

Factsheets

- Climate Risk Management FAQ
- Climate Risk Screening Overview Webinar
- Sample Language for Integrating Climate Change in Solicitations
- Climate Vulnerability Assessment: An Annex to the USAID Climate-Resilient Development Framework
- Compendium of Lessons Learned from ARCC Climate Change Vulnerability Assessments

RESOURCES FOR CRM

climatelinks | *A Global Knowledge Portal for Climate Change & Development Practitioners*

USAID FROM THE AMERICAN PEOPLE

What We Do | Where We Work | Learning | Resources | Blog | Search

Home / Integration / Climate Risk Management at USAID / Resources for Climate Risk Management

Resources for Climate Risk Management

A number of resources are available to support USAID's implementation of climate risk management within USAID. USAID staff may access additional climate risk management resources on the agency intranet.

Guidance for USAID Strategies, Projects & Activities

- Climate Change in USAID Strategies: A Mandatory Reference for ADS Chapter 201
- Climate Risk Management for USAID Projects and Activities: A Mandatory Reference for ADS Chapter 201

Climate Risk Country Profiles & Emissions Fact Sheets

Profiles linked to below summarize climate stressors, climate risks and GHG emissions in each country or region and highlight linkages between climate and USAID programs. USAID staff who do not yet find their mission below may consult internal agency resources. Users may also benefit from consulting other resources, such as the World Bank's Climate Knowledge Portal for climate impacts and WRI's CAIT on GHG emissions. Country-specific information through Climatelinks' map may also be helpful.

Afghanistan

UNDERSTAND

Adaptation
Clean Energy
Sustainable Landscapes
Integration
Projects

BLOG

170 Countries Agree to Phasedown HFCs; USAID pledges $2.3M for Climate-

COUNTRY-LEVEL CLIMATE RISK PROFILES & GHG EMISSIONS FACTSHEETS

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A Global Knowledge Portal for Climate Change & Development Practitioners

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Home / Blog / USAID's Country Strategy for Zimbabwe: Integrating Climate Risk Management

USAID's Country Strategy for Zimbabwe: Integrating Climate Risk Management

SEPTEMBER 21, 2016 | OLIVIA GILMORE | BLOG POST

Around the world, climate change threatens to undermine progress towards development objectives and jeopardizes human well being. It is not just an environmental problem; climate change poses significant threats to food security, water availability, infrastructure integrity, good governance, and health. Whether an infrastructure investment in Pakistan, an agriculture project in Ethiopia, or a health program in Haiti, USAID recognizes that considering climate change ensures the sustainability and impact of its development investments.

Through climate risk management – a structured process to assess and address risks and identify opportunities – USAID can improve the impact and sustainability of its efforts, safeguarding billions of dollars in investments. In October 2015, USAID began considering climate risk in all new regional and country-level strategies.[1] Missions that have done climate risk screening for their strategies are already producing national development plans that better address climate risk.

The USAID Mission in Zimbabwe was one of the first to go through USAID's new climate risk management process.

climate risk management, health, resilience

SUGGESTED RESOURCES

- Climate Risk Screening & Management Tools
- Climate Change Risk Profile: West Africa Sahel
- Climate Change Risk Profile - Climate Risk Screening for Food Security: Liberia

Zimbabwe Climate Info Fact Sheet_FINAL.pdf - Adobe Acrobat

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FACT SHEET

Climate Change Information Fact Sheet ZIMBABWE

Definitions
Ensemble: A collection of model simulations characterizing a climate prediction or projection. [IPCC AR5]
Representative Concentration Pathway (RCP): Scenarios that include time series of emissions and concentrations of the full suite of greenhouse gases and aerosols and chemically active gases, as well as land use/land cover. RCPs usually refer to the portion of the concentration pathway extending up to 2100, for which Integrated Assessment Models produced corresponding emission scenarios. [IPCC AR5]
RCP8.5: Generally, high emissions. One high pathway for which radiative forcing reaches >8.5 W m^{-2} by 2100 and continues to rise for some amount of time. [IPCC AR5]
RCP4.5: Generally, moderate emissions. One of two intermediate stabilization pathways in which radiative forcing is stabilized at approximately 4.5 W m^{-2} after 2100. [IPCC AR5]

CLIMATE RISK SCREENING AND MANAGEMENT TOOL

TOOL NAVIGATION

Click on any of the following to go to that section:

1. Set-Up | 2. Climate Risks | 3. Adaptive Capacity | 4. Risk Rating | 5. Opportunities
6. Project Integration | 7. Next Steps | 8. Accepted Risks | Output Matrix

Climate Change Risk Screening and Management Tool

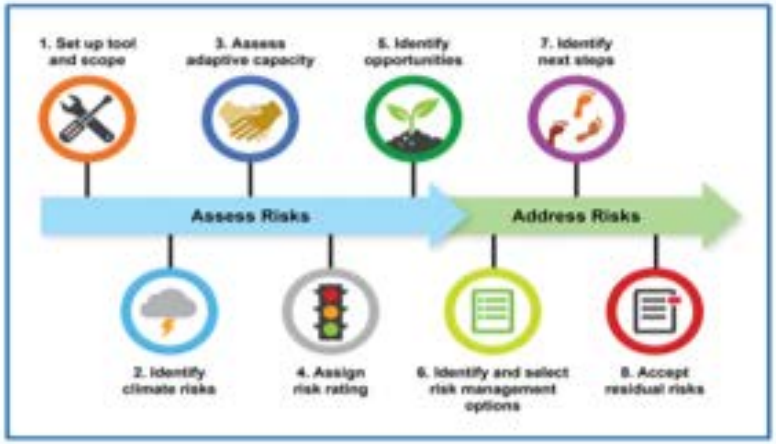
For use in project design

Purpose: This tool guides developers of projects and related Project Appraisal Documents (PADs) through the process of assessing and addressing climate risks. This process will help to ensure effectiveness and sustainability of project objectives in the face of climate change. The output of this tool provides the table required in *Climate Risk Management for USAID Projects and Activities: A Mandatory Reference for ADS 201<insert HL>*.

Structure: The tool guides you through the steps shown to the right.

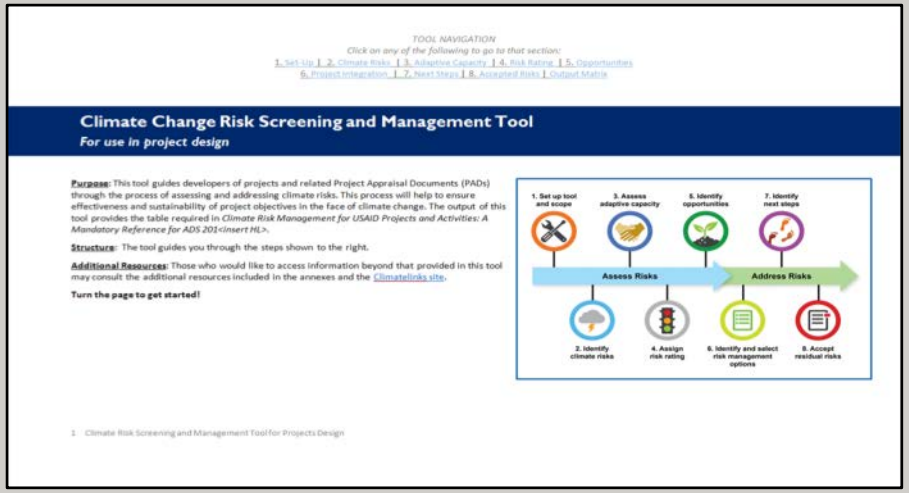
Additional Resources: Those who would like to access information beyond that provided in this tool may consult the additional resources included in the annexes and the Climatelinks site.

Turn the page to get started!



USING THE TOOL

Tool



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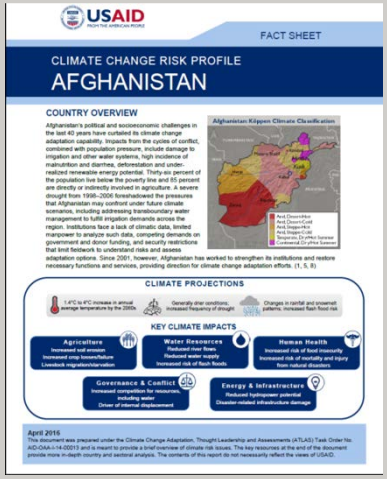
1 Climate Risk Screening and Management Tool for Projects Design

Climate Risk Profile



USAID FROM THE AMERICAN PEOPLE

FACT SHEET

CLIMATE CHANGE RISK PROFILE

AFGHANISTAN

COUNTRY OVERVIEW

Afghanistan's political and socioeconomic challenges in the last 40 years have curtailed its climate change adaptation capability. Impacts from the cycles of conflict, combined with population pressure, include damage to irrigation and other water systems, high incidence of malnutrition and diarrhea, deforestation and under-realized renewable energy potential. Thirty-six percent of the population live below the poverty line and 85 percent are directly or indirectly involved in agriculture. A severe drought from 1998–2006 foreshadowed the pressures that Afghanistan may confront under future climate scenarios, including addressing transboundary water management to fulfill irrigation demands across the region. Institutions face a lack of climatic data, limited manpower to analyze such data, competing demands on government and donor funding, and security restrictions that limit fieldwork to understand risks and assess adaptation options. Since 2001, however, Afghanistan has worked to strengthen its institutions and restore necessary functions and services, providing direction for climate change adaptation efforts. (1, 5, 8)

Afghanistan Köppen Climate Classification

Arid Desert-Hot
Arid Desert-Cold
Arid Steppe-Hot
Arid Steppe-Cold
Temperate Dry-Hot Summer
Continental Dry-Hot Summer

CLIMATE PROJECTIONS

1.4°C to 4°C increase in annual average temperature by the 2090s

Generally drier conditions; increased frequency of drought

Changes in rainfall and snowmelt patterns; increased flash flood risk

KEY CLIMATE IMPACTS

Agriculture
Increased soil erosion
Increased crop losses/failure
Livestock migration/elevation

Water Resources
Reduced river flows
Reduced water supply
Increased risk of flash floods

Human Health
Increased risk of food insecurity
Increased risk of mortality and injury from natural disasters

Governance & Conflict
Increased competition for resources, including water
Driver of internal displacement

Energy & Infrastructure
Reduced hydropower potential
Disaster-related infrastructure damage

April 2015

This document was prepared under the Climate Change Adaptation, Thought Leadership and Assessments (ATLAS) Task Order No. AID-OAA-I-14-00013 and is meant to provide a brief overview of climate risk issues. The key resources at the end of the document provide more in-depth country and sectoral analysis. The contents of this report do not necessarily reflect the views of USAID.

Climate Risk Management Table

Defined or Anticipated Project Elements (Purpose/ Sub-purpose, Areas of Focus, or Activities/Mechanisms, etc.)	**Climate Risks** List all risks related to the project elements identified through either the strategy- or project-level climate risk assessment.	**Risk Rating** Low/ Moderate/ High	**How Risks Addressed at Project Level** Describe how risks have been addressed at the project level. If a decision has been made to accept the risk briefly explain why.	**Risks Addressed or Further Analysis to be Conducted in 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 any opportunities to achieve multiple development objectives by integrating climate resilience or mitigation measures
Improving livestock productivity	*Heat stress due to increasing temperatures*	*High*	*Target support to more heat tolerant sheep/goats rather than cattle*		*Drought early warning systems (with DRR or S&T programs).*
	Mortality from increasingly frequent/severe drought	*High*		*Improve fodder storage/banking strategies Improve access to insurance*	*Conflict prevention with DG programs as water becomes more scarce.*
	Loss of livestock due to sea level rise and storm surge	*Low (upland focus areas)*	*NA*	*NA*	*Leverage the government's increasing focus on climate change adaptation and agricultural extension.*

CLIMATE RISK MANAGEMENT TABLE

Document in IEE

Defined or Anticipated Project Elements	Climate Risks	Risk Rating	How Risks Addressed at Project Level	Risks [illegible]ed or Furt[illegible] Analysis to be Conducted in Activity Design/ Implementation	Opportunities
Improving livestock productivity	*Heat stress due to increasing temperatures*	*High*	*Target support to more heat tolerant sheep/goats rather than cattle*		*Drought early warning systems (with DRR or S&T programs).* *Conflict prevention with DG programs as water becomes more scarce.* *Leverage the government's increasing focus on climate change adaptation and agricultural extension.*
	Mortality from increasingly frequent/severe drought	*High*		*Improve fodder storage/banking strategies Improve access to insurance*	
	Loss of livestock due to sea level rise and storm surge	*Low (upland focus areas)*	*NA*	*NA*	

DOCUMENTATION

Policy	→	Integrated into Policy (as appropriate)
R/CDCS	→	Climate Change Annex
Project	→	Environmental Compliance Analysis
Activity	→	Environmental Compliance Analysis

ENHANCE SUSTAINABILITY AND IMPACT OF INVESTMENTS

- Climate change is already impacting development and will increase over time
- By considering climate vulnerabilities and opportunities as part of planning and design, USAID can increase the effectiveness of its investments