




Climate Risk Screening and Management Tool

For use in strategy design

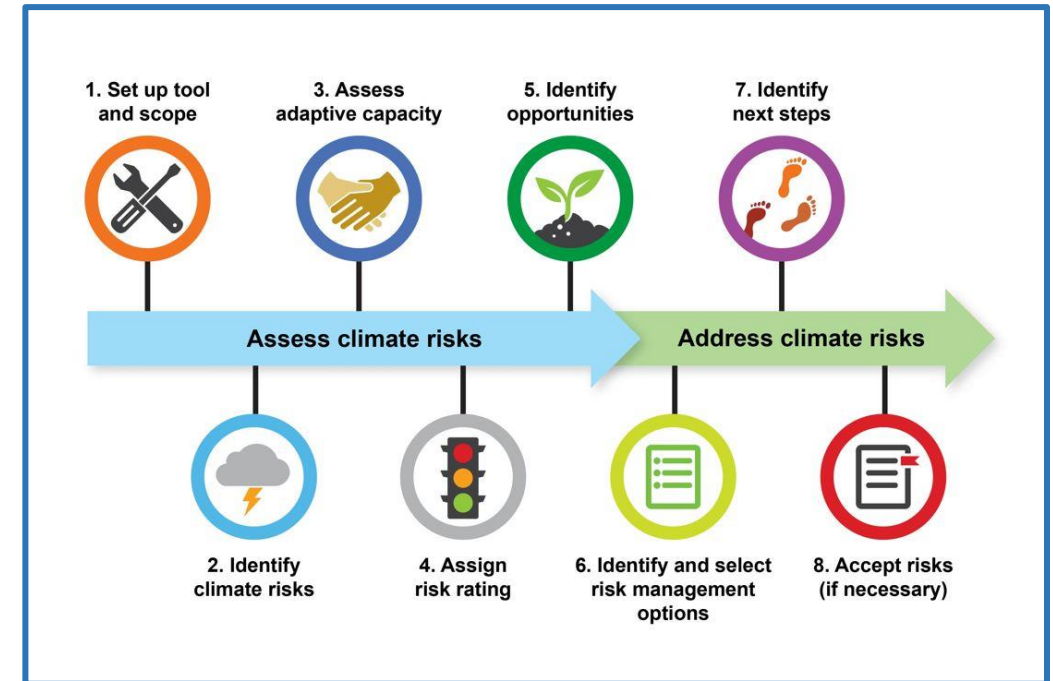
Purpose: This tool guides USAID strategy (e.g., Regional / Country Development Cooperation Strategies, R/CDCS) planners and support staff through the process of assessing and addressing climate-related risks. This process will help to ensure effectiveness and sustainability of strategy objectives in the face of **climate variability and change**.  The output of this tool provides information for the **Climate Change Annex**  required in [Climate Change in USAID Strategies: A Mandatory Reference for ADS Chapter 201](#).

Structure: The tool guides you through the steps shown to the right. For additional information, you will find purple pop-ups with definitions and yellow pop-ups with examples throughout the tool.

Additional Resources: This tool should be used in conjunction with climate information, such as these country-specific [climate risk profiles](#), which describe climate stressors and the major types of risks that climate change poses to each country. Additional resources can be found in [the annexes](#) of this tool and on [Climatelinks](#).

Climate change impacts different groups differently: All analysis using this tool should reflect a commitment to social inclusion that considers the different societal roles, needs, constraints, and opportunities of individuals and groups based on their identities, including gender, age, sexual orientation, disability status, linguistic status, and ethnicity – particularly **marginalized populations**. 

Turn the page to get started!

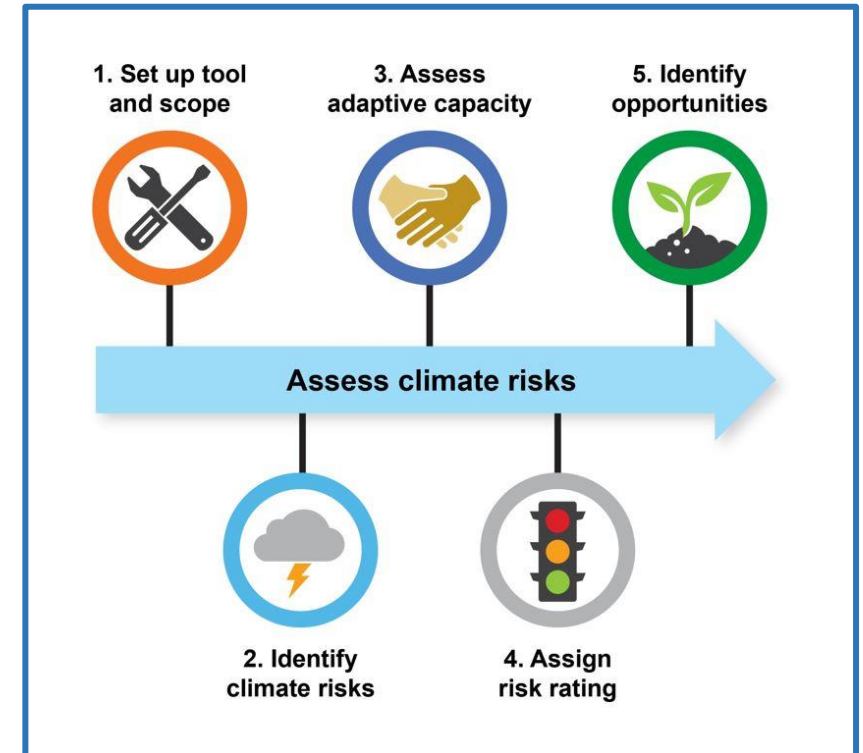


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PART A: ASSESS CLIMATE RISKS

Part A of the tool helps you assess climate risks and should be used early in the strategy design process – before the theory of change is finalized. Click [here](#) to see a diagram summarizing the complete climate risk screening and management process for strategies. For more details, see the [Mandatory Reference](#).



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1. SET UP TOOL

1.1 Identify What to Screen

- If Development Objectives (DOs) and Intermediate Results (IRs) have already been drafted for the strategy, enter each DO or IR in column 1.1 of the [Output Matrix, Part 1 \(pg. 13\)](#). These are the elements you will be screening. If you refine or modify your DO or IR, simply update that column. Screening at the IR level is recommended. However, screening can also be done at the DO level, especially in low-risk areas.

OR...


- If DOs and IRs have not yet been drafted, you may still proceed with the climate risk screening. In that case, identify the sectors that are **expected to be featured**  prominently in the strategy, and/or in which current activities are implemented. Select from the following F Framework sectors, as appropriate, and **enter each sector on a separate line in column 1.1 of the Output Matrix, Part 1 (pg. 13)**. An [excel version of the Output Matrix](#) can be used to record your results.

- | | | |
|--|--|--|
| • Agriculture | • Education, Social Services, and Marginalized Populations | • Health |
| • Disaster Readiness | • Environment and Biodiversity | • Infrastructure, Construction, and Energy |
| • Economic Growth (excluding Agriculture, Infrastructure, and Environment) | • Governance and Peace and Security | • Water Supply and Sanitation |

Note: Once the DOs and IRs have been determined, you will need to revisit the results from this tool to explicitly consider and document climate risks to all DOs and IRs. You will need to revise the Output Matrix accordingly, replacing the sectors in column 1.1 with the DOs or IRs.


1.2 Identify Timeframes

For each DO, IR, or sector, determine the relevant timeframe for this assessment, i.e., the period of time over which you expect the investments to provide service or contribute to development. In most cases, this is longer than the timeframe of the strategy. Also, consider the longevity of decisions stakeholders may make as a result of the investments.

See examples. 

Record the appropriate timeframe for each DO, IR, or sector in **column 1.2** of the [Output Matrix, Part 1 \(pg. 13\)](#).


1.3 Identify Geographies


For each DO, IR, or sector, identify and record the geographies to screen in **column 1.3** of the [Output Matrix, Part 1 \(pg. 13\)](#). You may choose to analyze the strategy's geographic scope as a single country or region. **See examples.** 

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2. IDENTIFY CLIMATE RISKS

Next, identify the risks that climate change poses to each DO, IR, or strategy sector. See the definition of **climate risks**. 


To begin, **download and review the [climate risk profile\(s\)](#) on [Climatelinks](#)** relevant to your country(ies) or region(s). The climate risk profile describes **climate stressors**  and the major types of risks that climate change poses to each country or region. You may complement the climate risk profile with your own knowledge of the geographies you have identified. This will be especially important if the profile does not provide information specific to the selected geographies. Other sources of climate information may be available and helpful, e.g., the World Bank's [Climate Change Knowledge Portal](#). Consult with your operating unit's Climate Integration Lead (CIL) to identify additional information, if needed.

Consider climate risks within the timeframes identified. Take note of uncertainty and consider the full range of future climate scenarios.

Review the following questions for each DO, IR, or sector and **document the climate risks in [column 2](#) of the [Output Matrix, Part 1](#) (pg. 13)**.

- How has the DO, IR, or sector been impacted by climate change in the past few decades? This may include risks from gradual climate change (e.g., sea level rise) and climate variability or weather-related disasters (e.g., droughts, floods, extreme storms). How severe were those impacts? Were any populations disproportionately impacted?
- Given projections of future climate change, how might the DO, IR, or sector be affected? This may include **changes in climate variability**.  How severe might those impacts be?
- How might climate and **non-climate stressors**  interact to exacerbate climate risks? **See example.** 

Remember to articulate climate risks in terms of their impacts on programming due to the expected climate stressor, e.g., *reduced crop productivity due to higher temperatures*.

Optional: Sector-specific examples of climate risks are available in the annexes listed below, which can be found on [Climatelinks](#). It may be helpful to consult multiple sector examples for multi-sectoral DOs or IRs. Note, if new **construction or rehabilitation**  is anticipated, consulting the [Infrastructure, Construction, and Energy Annex](#) is **highly recommended**.

- | | | |
|--|--|--|
| • Agriculture | • Education, Social Services, and Marginalized Populations | • Health |
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3. ASSESS ADAPTIVE CAPACITY

Next, consider the extent to which there is the capacity to prepare for and undertake actions to address climate risks, including demonstrated capacity to respond to climate impacts in the past few decades. Consider the adaptive capacity of all relevant stakeholders potentially affected by climate change, as well as others that can contribute to adaptive capacity (e.g., civil society organizations, government agencies).

Review the following questions in order to describe adaptive capacity in each of the following areas. **Record your responses in column 3 of the [Output Matrix, Part 1](#) (pg. 13).**

- **Information Capacity:**  What is the capacity of relevant stakeholders to collect and use information related to climate risks in this sector/geography?
- **Social and Institutional Capacity:**  What institutions and social networks exist and what is their capacity to support this sector/geography in preparing for and responding to climate impacts?
- **Human Capacity:**  What resources, including technical and other know-how, exist amongst individuals and organizations to support this sector/geography in preparing for and responding to climate impacts?
- **Financial Capacity:**  What types of financial resources might support this sector/geography in preparing for and responding to climate impacts?

Optional: Sector-specific questions that can help you further explore adaptive capacity are available in the annexes listed below, which can be found on [Climatelinks](#).

- Agriculture
- Disaster Readiness
- Economic Growth (excluding Agriculture, Infrastructure, and Environment)
- Education, Social Services, and Marginalized Populations
- Environment and Biodiversity
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4. ASSIGN RISK RATING

Based on your characterization of climate risks and adaptive capacity, assign a qualitative risk rating for each DO, IR, or sector: low, moderate, or high. The level of risk increases both as the severity of negative impact increases and as the probability of negative impact increases (see Table 1).

Table 1: Risk ratings (see examples of **low**, **moderate**, and **high** risk)

	PROBABILITY OF NEGATIVE IMPACT (increases from left to right)		
SEVERITY OF NEGATIVE IMPACT (increases from top to bottom)	Low probability Low impact LOW RISK	Moderate probability Low impact LOW RISK	High probability Low impact LOW RISK
	Low probability Moderate impact LOW RISK	Moderate probability Moderate impact MODERATE RISK	High probability Moderate impact MODERATE RISK
	Low probability High impact MODERATE RISK	Moderate probability High impact HIGH RISK	High probability High impact HIGH RISK

Record climate risk ratings for each DO, IR, or sector in **column 4** of the [Output Matrix, Part 1](#) (pg. 13).

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5. IDENTIFY OPPORTUNITIES

Consider opportunities for the strategy, as well as for broader development objectives.

5.1 Opportunities Related to Climate Risk Management

Consider the following questions for each DO, IR, or sector to identify opportunities.

- What opportunities are there to achieve multiple development objectives or realize co-benefits by addressing climate risks? What opportunities are there to incorporate **resilience**  into other development activities? Are there relevant non-climate policies that can contribute to climate risk management? **See examples.** 
- What “windows of opportunity” may exist due to recently adopted policies or changing attitudes? Can political will (e.g., recently adopted policies, changing attitudes, new leadership, or other developments) be leveraged to address identified climate risks and/or enhance either the DO, IR, or sector’s direct outcomes or broader development objectives? **See examples.** 
- How may changes in climate create new **opportunities**  to advance development? **See example.** 
- What are the tradeoffs of pursuing these opportunities? (Not all opportunities will be worth pursuing.) **See examples.** 

Note that opportunities can exist irrespective of the climate risk rating.

Record the opportunities that you have identified in your responses in column 5 of the [Output Matrix, Part 1](#) (pg. 13).

Optional: Sector-specific examples of opportunities are available in the annexes listed below, which can be found on [Climatelinks](#).

- | | | |
|--|--|--|
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5.2 Opportunities Related to Climate Change Mitigation

USAID efforts can help reduce the magnitude of global climate change through climate change mitigation, i.e., reductions in greenhouse gas emissions or removal of greenhouse gases (GHGs) from the atmosphere (e.g., via tree planting). Address the following questions for each DO, IR, or sector to identify opportunities related to climate change mitigation. Consult the country's [greenhouse gas emissions fact sheet](#) on Climatelinks.

- **5.2a:** What are the major sources of GHG emissions, how have they changed over time, and how are they expected to change in the future? How are the sources of GHG emissions contributing to the economy and development objectives? What mitigation or low-emission development plans, targets, and priorities have the government (national, state, and local) articulated? Enter your responses in the first row of [Output Matrix, Part 2](#) (pg. 14).
- **5.2b:** What opportunities exist to reduce emissions in each DO, IR, or sector? What opportunities exist to reduce emissions associated with USAID activities? **Enter your responses in the second row of [Output Matrix, Part 2](#) (pg. 14).**
- **5.2c:** Does the strategy incorporate ways to reduce GHGs? Reference the page number in the strategy. Note in particular if the Goal, a DO, or an IR or sub-IR specifically incorporates mitigation. **Enter your responses in the third row of [Output Matrix, Part 2](#) (pg. 14).**
- **5.2d:** What are the next steps in project and/or activity design to reduce GHGs? **Enter your responses in the fourth row of [Output Matrix, Part 2](#) (pg. 14).**

5.3 Additional Requirements for Missions with Global Climate Change Funds

Missions receiving Global Climate Change (GCC) funds must answer additional questions in order to guide them to strategically address climate change and development in their strategy. Refer to the [Mandatory Reference](#) for additional requirements.

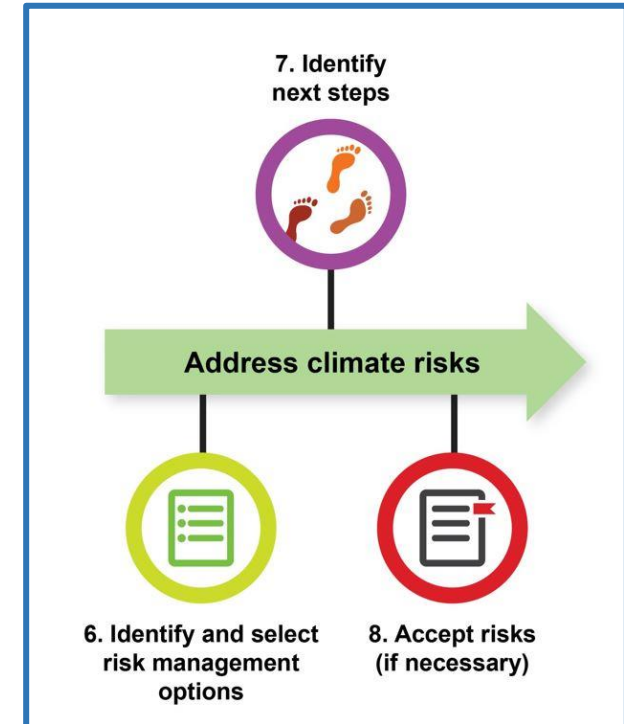
Congratulations! You have completed the first part of this tool. The initial brainstorming of climate risk management options in **Part B** can be done now or you can wait until you are beginning to design your strategy.

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PART B: ADDRESS CLIMATE RISKS

Part B of the tool helps you address the climate risks you have identified. This should be done alongside the development hypothesis and results framework. For more details, see the [Mandatory Reference](#). You will start by identifying possible climate risk management options. Then you will decide which options you will use to address the climate risks, identify next steps, and note any climate risks that you decide to accept. If you do not yet have DOs or IRs, you can identify climate risk management options for your sector or wait until you have drafted DOs and IRs to proceed.



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6. IDENTIFY AND SELECT CLIMATE RISK MANAGEMENT OPTIONS

This step will depend on the climate risk rating:

- **Low climate risk:** The mission is not required to incorporate specific plans in the strategy to address climate risk for DOs or IRs that have low climate risk. The mission can consider monitoring those DOs and IRs for potential future climate risk throughout the Program Cycle, as appropriate.
- **Moderate to high climate risk:** Moderate or high climate risk must be addressed by the mission based on its technical judgment and integrated into the development hypothesis and results framework, as appropriate. Consideration of tradeoffs and how USAID can best promote resilient development should inform the mission's decision. The mission may alternatively decide to accept one or more climate risks (i.e., those risks will not be addressed explicitly by risk management options during strategy, project, or activity design and implementation); see [Step 8](#).

6.1 Identify Climate Risk Management Options

Brainstorm options for addressing the moderate and high climate risks. **Record your ideas for climate risk management in column 6.1 of the [Output Matrix, Part 1](#) (pg. 13).** While you may not incorporate all of these options, having a record of your ideas may prove useful in the future. You will select options to pursue in the next sub-step.

Optional: Sector-specific examples of climate risk management options are available in the annexes listed below, which can be found on [Climatelinks](#).


- Agriculture
- Disaster Readiness
- Economic Growth (excluding Agriculture, Infrastructure, and Environment)
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6.2 Describe How Climate Risks Are Addressed in the Strategy

Next, select from column 6.1 the options that you will include in the strategy. It is helpful to have drafted DOs and IRs before undertaking this part. **Record how climate risks are addressed in column 6.2 of the [Output Matrix, Part 1](#) (pg. 13).** Note in the Output Matrix the relevant strategy page number where this is included. Some of the criteria to consider are:

- *Effectiveness.* To what extent will the options reduce the climate risk(s) to the strategy’s objectives, or increase the ability to cope with the potential impacts?
- *Affordability.* How much will it cost upfront? How much will it cost to operate and maintain the investment? Will there be non-monetary resource demands, e.g., requirements for ongoing support by trained professionals?
- *Feasibility.* Are there barriers to implementation? For example, is there political or stakeholder opposition to the options? Conversely, are there factors that will facilitate implementation of the options? Is there sufficient institutional and human capacity to support implementation?
- *Flexibility.* How effective will the options be in the face of uncertain future conditions, including climate conditions, environmental conditions, socioeconomic conditions, political conditions, etc.? Will a change of course be possible if new information warrants it? Note: options that will be successful under a variety of scenarios and “no regrets”  approaches are particularly important in cases of high uncertainty.
- *Co-benefits.* Will the options support other development objectives?
- *Tradeoffs.* Are the downsides and the potential for unintended consequences relatively minor?

The manner in which climate risks are addressed in the strategy should be documented in the following sections:

- Development Context, Challenges, and Opportunities – Missions should incorporate discussion of the extent to which climate change has, in past few decades, already affected sectors and geographies in which the mission is working. Missions should consider describing how the sectors and populations have responded. Missions should also incorporate a discussion of future risks from climate change identified in the screening analysis.
- Development Hypothesis and Strategy –  The development hypothesis and strategy should take into account the results of the screening in the results statements and accompanying narrative. Additionally, the narrative should cite evidence (e.g., assessments, stakeholder consultations) that support causal linkages.
- Monitoring, Evaluation, and Learning –  Missions should consider opportunities to incorporate climate risk and resilience considerations into the learning plan developed for the R/CDCS. Monitoring and evaluation can also contribute to continuous learning and improvement of climate-resilient strategies.


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7. IDENTIFY NEXT STEPS

For each DO, IR, or sector, identify next steps for addressing climate risks and opportunities in project and/or activity design. **Document these next steps in column 7 of the [Output Matrix, Part 1](#) (pg. 13).** This is the set of actions to be taken *after* you have finished developing the strategy. Next steps may include further analysis to be conducted prior to project or activity design or incorporation of risk management options that are too detailed to include in the strategy.

8. ACCEPT CLIMATE RISKS

In some cases, the benefits of USAID actions outweigh the potential negative consequences of climate risks. Or, the cost of all available measures to reduce a climate risk may exceed the expected benefit of the action. In those cases, you may accept the climate risk(s). **Document the accepted climate risk(s) and explain why you accepted the risk(s) in column 8 of the [Output Matrix, Part 1](#) (pg. 13).** See example. 

Note, every moderate or high risk needs to either be addressed in the strategy (Step 6.2), have next steps identified (Step 7), or be accepted (Step 8).

Note: If you completed the screening by sector, please be sure to replace the sectors in column 1.1 with the DOs or IRs once they have been drafted. Review to determine if you need to make any adjustments to the responses in the subsequent columns.












Congratulations! You have completed this tool.

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STRATEGY CRM TOOL OUTPUT MATRIX, PART 1 – CLIMATE RISK

An [excel version of the Output Matrix](#) can be used to record your results.

1.1: Defined or Anticipated DOs, IRs, or sectors*	1.2: Time-frame*	1.3: Geography	2: Climate Risks*	3: Adaptive Capacity*	4: Risk Rating of DO or IR*	5.1: Opportunities	6.1: Climate Risk Management Options	6.2: How Risks are Addressed in the Strategy*	7: Next Steps for Project and/or Activity Design*	8: Accepted Climate Risks*
<p>[List defined or anticipated DO, IR, or sector]*</p> <p>Example: Morbidity and mortality related to malaria is reduced.</p> 	<p>[List time-frame]</p> <p>Example: 0-5 years</p> 	<p>[List geog. scope]</p> <p>Example: Country-wide</p> 	<p>[Enter description of climate risks]</p> <p>Example: Increases in temperature and changes in precipitation patterns in the past few decades have increased distributions of disease-carrying vectors and led to increases in the prevalence of malaria.</p> 	<p>[Enter description of Information Capacity, Social and Institutional Capacity, Human Capacity, and Financial Capacity]</p> <p>Example: Malaria early warning systems are not in place. Health workers have low awareness of climate impacts to health. The country has moderate access to financing in the health sector, but investments in the sector have focused on maternal and child health.</p> 	<p>[Enter rating for each DO, IR, or sector: High, Moderate, or Low]</p> <p>Example: High</p> 	<p>[Enter description]</p> <p>Example: Increased awareness of ways to address climate impacts on health will also benefit children, who are particularly at risk to climate impacts, and boost the climate resilience of the country's considerable percentage of investment in maternal and child health.</p>	<p>[Enter management options for each climate risk]</p> <p>Example: Incorporate capacity building for health workers to recognize and address climate change impacts to health. Increase distribution of mosquito nets in regions that may be the most affected based on climate projections. Make improvements to the water sector to minimize breeding grounds for mosquitos.</p>	<p>[Enter selected management options for each climate risk, if relevant]</p> <p>Example: Incorporate capacity building for health workers to recognize and address climate change impacts to health (Strategy, p. X).</p> 	<p>[Enter next steps for addressing risks in project and/or activity design, if relevant]</p> <p>Example: Further information related to how climate change is expected to impact malaria prevalence in region X will be sought prior to project design. The mission will continue to monitor the impact of changing temperature and precipitation patterns on the prevalence of malaria.</p>	<p>[Enter if the risk is accepted and why, if relevant. This is required if 6.2 and 7 do not address this climate risk]</p> <p>Example: Populations with weakened immune systems from public health issues besides malaria may have reduced capacity to physically cope with impacts from changing climate conditions.</p> 
										
Next step: Timeframe	Next step: Geog.	Next step: Climate Risks	Next step: Adaptive Capacity	Next step: Risk Rating	Next step: Opps.	Next step: Risk Mgmt. Options	Next step: Selected Options	Next step: Next Steps	Next step: Accepted Risks	Finished!

* = A required element, according to the Mandatory Reference

Note, every moderate or high risk needs to either be addressed in the strategy (6.2), have next steps identified (7), or be accepted (8). These columns are not required for low risks.

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STRATEGY CRM TOOL OUTPUT MATRIX, PART 2 – GREENHOUSE GAS MITIGATION

<p>5.2a</p>	<ul style="list-style-type: none"> • What are the major sources of greenhouse gas (GHG) emissions? • How has the distribution and composition of the GHG emissions profile changed over time historically, and how is the profile expected to change in the future considering the major emitting sectors and/or sources? • How are the sectors and sources that contribute to GHG emissions contributing to the growth and development of the economy and to meeting development objectives? • What climate change mitigation or low-emission development plans, targets, commitments, and priorities has the government (national, state, and local) articulated?" 	<p><i>Example: According to FAOSTAT (2015), the major sources of greenhouse gas emissions in the country are land use change and forestry (LUCF) sector, followed by the energy and agriculture sectors. The country's Second National Communication (SNC) however lists the major sources for greenhouse gases as fuel combustion, agriculture, waste handling, and industrial purposes.</i></p> <p><i>LUCF emissions originate from forest land use changes and the burning of biomass. The SNC states that 70 percent of the population depends directly on forests for firewood, construction timber, food, and fodder. Energy, as of 2012, is primarily supplied by biofuels and waste (66 percent), followed by coal, oil, and hydropower.</i></p> <p><i>The country's emissions decreased by 10 percent from 1990 to 2011. Emissions from industrial processes decreased possibly due to a sharp decline in manufacturing and industrial activity. The decline in manufacturing and industry is linked to the country's economic and political crises.</i></p> <p><i>With the worsening electricity supply situation, firewood will continue to be the main source of energy with increased use in urban settlements. The importance of coal for electricity production could also increase as frequent droughts reduce the country's hydro- electric generation capacity.</i></p> <p><i>The government has prioritized the following actions as part of its intended Nationally Determined Contributions (INDC) under mitigation:</i></p> <ul style="list-style-type: none"> • <i>Increasing hydro power in the energy mix</i> • <i>Energy efficiency improvement</i> • <i>Refurbishment and electrification of the rail system</i> • <i>Ethanol blending</i> • <i>Solar water heaters</i>
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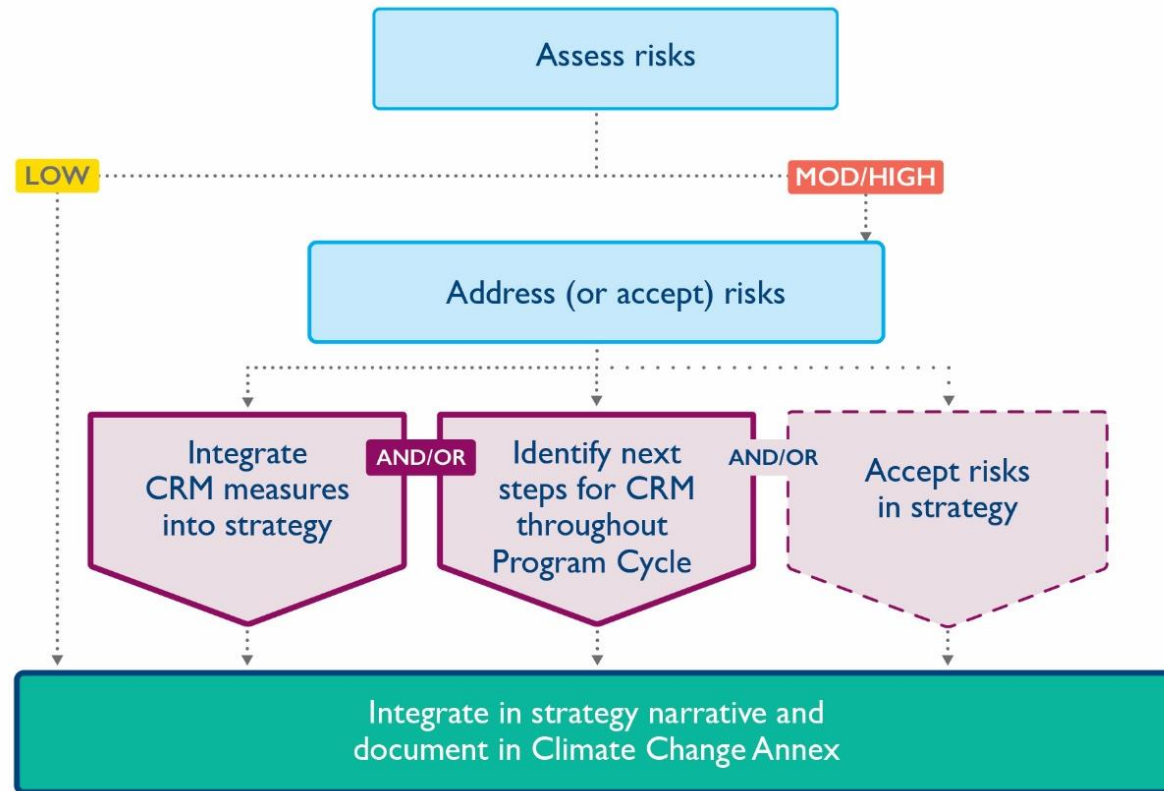
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5.2b	<ul style="list-style-type: none"> • Which of these sectors in USAID planning to program in? • What opportunities exist to reduce emissions in each DO, IR, or sector? • What opportunities exist to reduce emissions associated with USAID activities? 	<p><i>Example: USAID is not working in the broader energy, waste disposal, manufacturing, transport, and forestry sectors. Although USAID is not working directly in these sectors, it works in rural areas where firewood is one of the main natural resources used for energy. Under DO 1, USAID works to improve the resilience of communities. One way communities improve resilience is by improving management of natural resources like trees. Work on better management of these natural resources could to some extent reduce the use or improve the efficiency of firewood energy. In the agriculture sector, USAID will be promoting climate smart agricultural practices as a mitigation measure.</i></p>
5.2c	<ul style="list-style-type: none"> • Does the strategy incorporate ways to reduce GHGs? Reference the page number in the strategy. Note in particular if the Goal, a DO, an IR, or sub-IR specifically incorporates mitigation. 	<p><i>Example: The strategy focuses more on climate adaptation than mitigation. However, mitigation will include a focus on climate smart agricultural practices and improved natural resources management as part of DO 1.</i></p>
5.2d	<ul style="list-style-type: none"> • What are the next steps in project and/or activity design to reduce GHGs? 	<p><i>Example: Subsequent projects and any new designs in DO 1 will take into consideration results of the climate screening and ways in which natural resources management and agriculture activities can mitigate climate change.</i></p>

TOOL NAVIGATION

PART A: 1. [Set-Up](#) | 2. [Climate Risks](#) | 3. [Adaptive Capacity](#) | 4. [Climate Risk Rating](#) | 5. [Opportunities](#)
PART B: 6. [Climate Risk Management Options](#) | 7. [Next Steps](#) | 8. [Accepted Climate Risks](#) | [Output Matrix](#)

CLIMATE RISK SCREENING AND MANAGEMENT IN STRATEGY DESIGN



This diagram summarizes the process of climate risk screening and management for strategy design, as described in the [Mandatory Reference](#). The first step is to assess climate risks at a level of detail sufficient to develop approaches to adequately address moderate and high climate risks. The subsequent steps involve identifying climate risk management options; identifying next steps; accepting climate risks, if necessary; and documenting the results.