



USAID ZIMBABWE CDCS CLIMATE RISK ANALYSIS

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Executive summary

The USAID Climate Change in Country/Regional Strategies Mandatory Reference for ADS Chapter 201, defines Climate Risk Management (CRM) as the process of assessing, addressing, and adaptively managing climate risks. According to ADS 201.3.2.11, USAID strategies, projects, and activities should conduct climate risk screening. Integrating climate risk into sectoral programs can improve programs' results and countries' development goals. The first step to assessing climate risk is conducting a climate risk screening. Climate risk screening uses climate information to characterize current and future climate risks and opportunities early in the decision-making process. Identifying climate change risks early informs the strategies, projects and activities and helps determine where risk is the highest, thus enabling USAID to address climate risks as appropriate.

This analysis is a tool for the Mission to improve program results by limiting climate risks to projects and activities and identifying opportunities to integrate climate in programs. It also identifies potential avenues to limit greenhouse gas emissions and increase climate finance.

The Zimbabwe Mission is currently developing a new Country Development Cooperation Strategy (CDCS) for 2022-2026. This document outlines the Zimbabwe Mission's climate change risk analysis for the 2022-2026 CDCS.

The proposed CDCS has four technical offices contributing to three integrated Development Objectives (DOs). In the new CDCS, the Mission will work in the same traditional areas, albeit in a more integrated way, to improve collaboration and synergies across sectors and improve development outcomes. Below is a list of the integrated DOs:

1. DO 1: Ability of Zimbabweans to live healthier lives and sustainably adapt, mitigate, and recover from shocks and stressors strengthened;
2. DO 2: Youth contribution to Zimbabwe's development progress enhanced; and
3. DO 3: Good governance improved.

Zimbabwe is a signatory to most climate change agreements including the 1992 United Nations Framework Convention on Climate Change (UNFCCC). In 2019, the country ratified the Paris Agreement on Climate Change. Zimbabwe has an extensive climate change policy framework which is hamstrung by lack of funding and implementation.

Average temperatures in Zimbabwe are projected to increase steadily over the coming years. While there is no conclusive evidence on precipitation changes, incidence of heat waves, droughts, floods and cyclones are projected to increase in frequency and severity. Zimbabwe's agroclimatic zones are also shifting, with drier zones expanding.

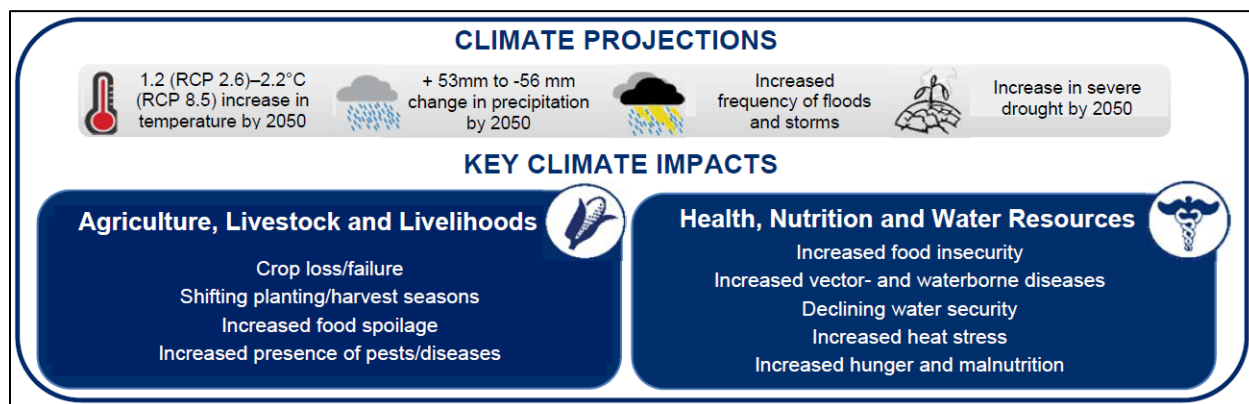
Zimbabwe is a small net emitter of Greenhouse Gases (GHGs) contributing approximately 0.071 percent to global emissions. The main sources of GHGs in Zimbabwe are the Forestry and Other Land Use (AFOLU) sector (54 percent) and the energy sector (33 percent). In 2021, the Government of Zimbabwe (GoZ) revised its 2030 Nationally Determined Contributions (NDCs) to emissions reduction targets upwards from 33 percent to 40 percent, signaling an increasing commitment to reducing its GHG emissions. The targets, however, are conditional on financing support from international partners. Zimbabwe plans to reduce GHG emissions by improving energy efficiency, increasing its use of renewable energy sources, increasing forest cover, and improving waste management.

Zimbabwe is particularly vulnerable to the effects of climate change due to a weak economy, high poverty rates, and a predominantly rural population which relies on rainfed agriculture for livelihoods.

The Notre Dame (ND) Gain Country index, which measures countries' climate vulnerability and readiness to improve resilience, ranks Zimbabwe 171 out of 182 countries.

Climate change has had and is projected to continue having significant impacts on several sectors important to Zimbabwe, including agriculture, biodiversity, governance, water and sanitation, forestry, natural resources management, and health. Projected climate change impacts include reduced crop yields, reduced livestock productivity, reduced forest cover, water scarcity, increased human-wildlife conflict, and wider distribution of disease vectors. The figure below briefly summarizes climate projections and likely impacts on key sectors in Zimbabwe.

Figure 1: Projected climate projections and key climate impacts



Source: USAID Zimbabwe 2020, Climate Risk Profile

Mission activities in agriculture and natural resources management are in the moderate and high climate risk categories; those in small-scale infrastructure rehabilitation, biodiversity management, and water are in the moderate risk category; while democracy and governance, health, and financial services activities are in the low-risk category. However, in some of the low-risk categories, there are opportunities to integrate climate into interventions, such as linking community level extreme weather concerns with governance decision making. To manage climate risks, Mission programs need to adapt to climate-smart agriculture, take up and encourage the use of efficient water management systems, climate-proof small-scale infrastructure, and monitor changes in both the distribution of disease vectors and areas where there are significant increases in the negative interactions between humans and wild animals.

Introduction and background

The USAID Climate Change in Country/Regional Strategies Mandatory Reference for ADS Chapter 201, defines Climate Risk Management (CRM) as the process of assessing, addressing, and adaptively managing climate risks. According to ADS 201.3.2.11, USAID strategies need to include climate risk screening. USAID requires that all strategies, projects and activities conduct climate risk management (CRM). The first step to assessing climate risk is conducting a climate risk screening. Climate risk screening uses climate information to characterize current and future climate risks and opportunities early in the decision-making process. Identifying climate change risks early informs the strategies and helps determine where risk is the highest, thus enabling USAID to address climate risk as appropriate at the strategy, project, or activity levels.

The Zimbabwe Mission is currently developing a new Country Development Cooperation Strategy (CDCS). This document outlines USAID/Zimbabwe's climate change risk analysis. The document

profiles the past, current, and expected climatic changes in Zimbabwe, briefly touches on Zimbabwe's climate change policy framework, discusses climate change vulnerability, sectoral impacts of climate change, and provides recommendations for incorporating climate change into the CDCS. After finalization of the strategy process, a summarized version of this document will form an annex to the strategy. The Mission will factor recommendations from this analysis in the final strategy.

USAID programming in Zimbabwe

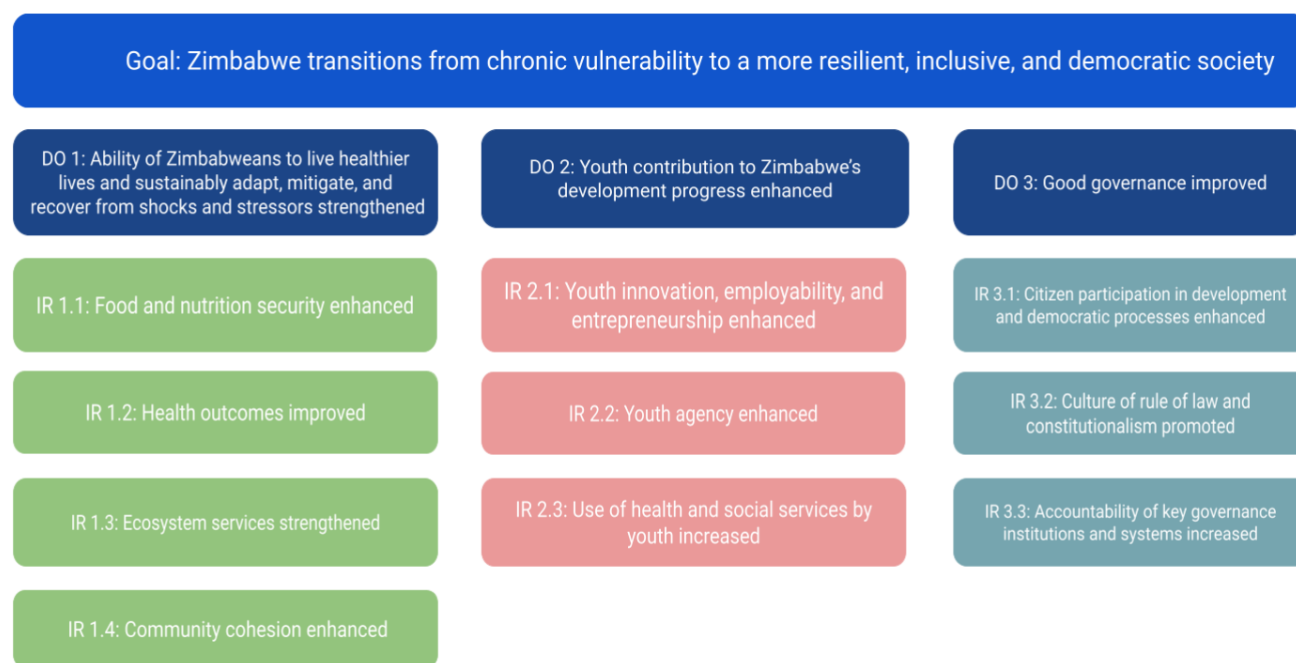
USAID/Zimbabwe currently has four technical offices: Economic Growth, Humanitarian Assistance and Resilience, Health, and Democracy and Governance.

Development Objectives

In the new CDCS, USAID/Zimbabwe offices will contribute to three cross cutting Development Objectives (DOs). The Mission's work will be organized across the three DOs, as outlined in the draft results framework below.

1. DO1: Ability of Zimbabweans to live healthier lives and sustainably adapt, mitigate, and recover from shocks and stressors strengthened
2. DO2: Youth contribution to Zimbabwe's development progress enhanced
3. DO3: Good governance improved

Figure 2: USAID Zimbabwe proposed results framework



Below is a summary description of each of the DOs:

DO1: Ability of Zimbabweans to live healthier lives and sustainably adapt, mitigate, and recover from shocks and stressors strengthened

Under DO1, life-saving support will continue to receive significant funding and attention. However, the Mission will place emphasis on building holistic resilience approaches to reduce the root causes of chronic vulnerabilities. Efforts to diversify sources of income, increase productivity, increase production

and consumption of nutritious foods, and improve hygiene practices will promote long-term food security, while continued investments in HIV/AIDS, malaria, and TB treatment and prevention will consolidate gains against pervasive infectious diseases and maintain improved health outcomes. For greater impact, DO1 will also invest in maternal and child health and improve the enabling environment for health. DO1's work with communities on strengthening ecosystem services, building livelihood strategies, and reducing environmental degradation will complement food security efforts by ensuring the long-term sustainability of the land. Finally, investments in strengthening community cohesion will help heal Zimbabweans who have been traumatized by shocks and stressors, increase access to social services and safety nets that will prevent and protect others from similar trauma, and increase communities' ability to manage and mitigate conflict.

DO2: Youth contribution to Zimbabwe's development progress enhanced

Under DO2, the Mission will focus on giving youth the skills they require to succeed in both the formal and informal job market, to lead and decide their own futures through civic participation, and to access the health and social services they need to thrive. To address the effects of the social, economic, environmental, and political decay on youth's ability to find employment, create work, earn incomes, and become self-reliant, this DO focuses on enhancing youth innovation, employability, and entrepreneurship through skills building, improving access to productive resources, and increasing public and private sector opportunities. The DO also acknowledges the importance of helping youth retain agency by increasing civic awareness and opportunities for youth leadership and participation in the civic space. Finally, the DO responds to youth's need for critical health and social services by increasing the availability of and access to these services.

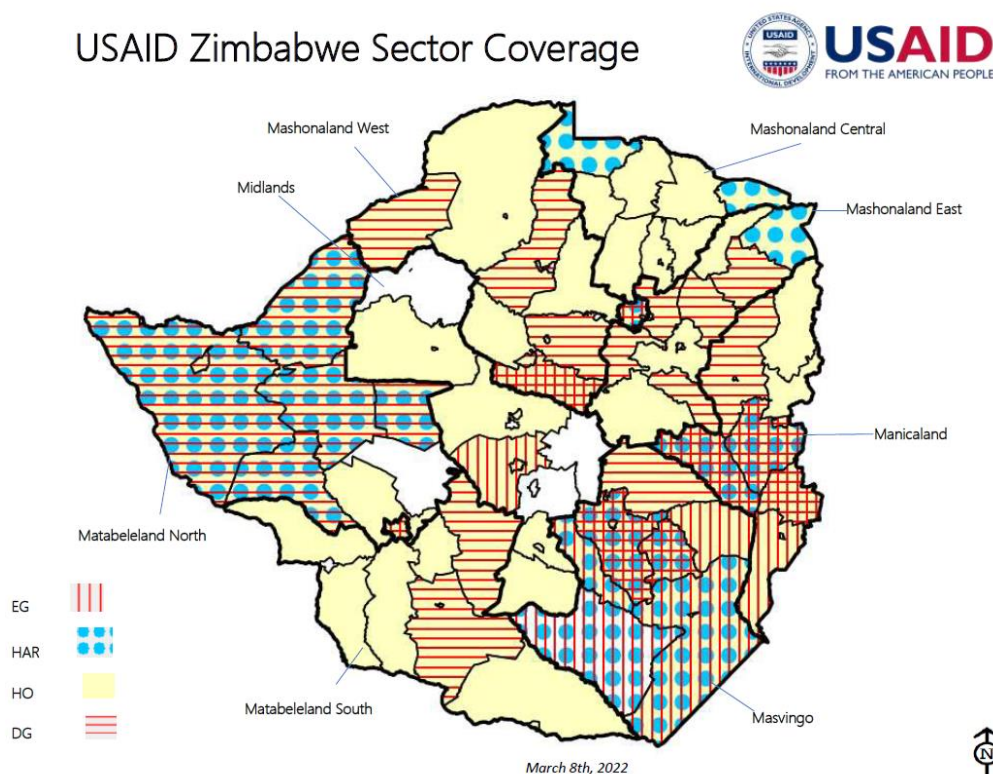
DO3: Good governance improved

The DO seeks to counter the drivers of poor governance by enhancing citizen participation in development and democratic processes, with an emphasis on improving access to information, promoting credible electoral processes, and increasing citizens' voice. Development Objective 3 will promote a culture of rule of law through improved legal, regulatory, and policy frameworks and a reduction in public tolerance for corruption and systemic abuses of law. The DO's support for capacity building and improved citizen input and oversight will increase the accountability of governance institutions and systems, particularly at the local level. Through these interventions, DO3 contributes directly to empowering citizens, building responsibility, reducing vulnerabilities, and fostering long-term resilience and development. The DO also supports the Agency priority of inclusivity through its focus on reducing barriers to participation for women, youth, and marginalized communities.

Geographical coverage of USAID/Zimbabwe programming

USAID/Zimbabwe works across the 10 provinces with different sectors covering almost all districts in the country. The map below shows the current geographical coverage of USAID sectors across the provinces.

Map 1: USAID Zimbabwe geographical sector coverage



Below is a narrative summary of the sectoral coverage of USAID/Zimbabwe programming.

Health : Health work is the most extensive covering almost all districts in the country. Work on Malaria and Maternal and Child health is concentrated in the eastern provinces of Manicaland, Mashonaland East, and Mashonaland Central. HIV, TB and Family planning work is spread across the country.

Democracy and Governance (DG): DG programming tends to be a mix of national level and local level programming in community cohesion, healing, and conflict management, civic education, engagement and mobilization in targeted districts.

Economic Growth (EG): Feed the Future (FtF), natural resource management and livelihoods work is mainly focused in the South East Lowveld (SEL), but expands into other parts of Masvingo and Manicaland provinces. Future environmental programming is likely to expand beyond current geographic zones in pursuit of catalytic layering and partnership opportunities with donors, the private sector, and other stakeholders.

Humanitarian Assistance and Resilience (HAR): Resilience Food Security Activities (RFSAs) environmental safeguards and watershed management work is in Matabeleland North, Masvingo, and Manicaland provinces. Additional community assets work and early recovery, risk reduction and resilience work expands to drier districts of Matabeleland South, Mashonaland West, Central, East and

the Midlands. Seasonal food assistance activities' locations change from year to year depending on areas of food deficit.

Policy and institutional environment

Zimbabwe is a signatory to most climate change agreements, including the 1992 United Nations Framework Convention on Climate Change (UNFCCC), the 1992 Montreal Protocol on substances that deplete the ozone layer, and the 2009 Kyoto Protocol. In 2019, Zimbabwe ratified the Paris Agreement on Climate Change.

Zimbabwe's 2017 National Climate Change Policy (NCCP) whose vision is "A Climate Resilient and Low Carbon Zimbabwe" is the main guiding framework for climate change efforts by the GoZ. The policy states as its main motivation "to reduce the socioeconomic impacts of climate variability and change in Zimbabwe and contribute to global greenhouse gas emissions reduction." The National Climate Policy is supported by various other policies, strategies, and work plans. Zimbabwe has an extensive policy framework which is hamstrung by a lack of political will to secure funding and to implement policies. Some of the major policies that support the NCCP are:

1. National Climate Change Response Strategy;
2. National Adaptation Plan;
3. Low Carbon Development Strategy;
4. National Environmental Policy;
5. Renewable Energy Policy; and
6. Forest Policy.

The NCCP goals are to:

- Reduce vulnerability to climate variability and climate related disasters by strengthening adaptive capacity;
- Accelerate mitigation measures by developing and adopting low carbon development pathways;
- Strengthen education and awareness of climate variability and change;
- Inform national financial resource allocation, enhance mobilization and management;
- Foster collaboration among national and international institutions in climate related issues;
- Strengthen governance structures for the climate policy to increase Zimbabwe's resilience to climate variability and climate change;
- Develop and strengthen capacity in Weather, Climate Research and Modeling; and
- Promote technology development and transfer, capacity building and information sharing.

Zimbabwe was an active participant in the 26th United Nations Climate Change Conference (COP26) held from October 31, 2021 to November 12, 2021. During COP26, President Mnangagwa released a high level statement which committed Zimbabwe to a conditional 40 percent per capita greenhouse gas emissions reduction target, by 2030. The statement also confirmed that Zimbabwe was implementing comprehensive strategies which are mainstreaming climate change adaptation and resilience across all sectors of Zimbabwe's economy.

The Climate Change Management Department in the Ministry of Environment, Climate, Hospitality and Tourism manages climate change issues. The department is tasked with developing climate-related

policies and strategies, research coordination, and promoting climate change education. It works with other stakeholders and line ministries including agriculture and energy¹.

Zimbabwe climate profile

Temperature and precipitation are the two climatic variables that have mainly been affected and are likely to continue to be affected by climate change. Generally, temperature is estimated to increase. There is no conclusive evidence on anticipated precipitation changes, as most models are uncertain. The table below gives more details on the past and future predicted changes in the major climatic variables.

Table 1: Zimbabwe current and future climatic trends

Climatic variable	Current trend	Future trend <i>Future: 2030 (generally 2020-2049)</i>
Temperature	• Mean annual temperature has increased by ~0.01 to 0.02°C/year over the time period 1950-2002 • Daily minimum temperatures have risen by approximately 2.6°C over the last century while daily maximum temperatures have risen by 2°C during the same period • Number of cold days have decreased, and hot days have increased over the last century	• The mean annual temperature in the country is projected to increase by 0.46°C, 1.04°C, and 1.83°C for the 10th, 50th, and 90th percentiles for the RCP (Representative concentration pathway) 4.5 model ensemble runs; • The 10th, 50th, and 90th percentiles for the business as usual scenario temperature increases of 0.62°C, 1.25°C, and 1.83°C • For the RCP4.5 and RCP8.5 median model ensemble, maximum temperatures are projected to increase by an additional 1.08°C and 1.31°C, and minimum temperatures by an additional 0.99°C and 1.18°C
Rainfall	• The IPCC , 2014: Climate Change Synthesis report notes modest observed reductions in annual rainfall in Zimbabwe • The last 30 years have shown a trend towards heavy rainfall and drought occurring back to back in the same season • The frequency and length of dry spells during the rainy season have increased while the frequency of rainy days has declined.	• The median ensemble runs for RCP4.5 and 8.5 indicate an average annual rainfall reduction of -0.1 mm/day, and 0 mm/day, by the middle of the 2030s • By 2030, the RCP4.5 10th percentile (-44%), median (-4%), and 90th percentile (41%) ensembles for mean annual precipitation indicate high uncertainty in the direction and amount of change across the models, although more model agreement indicates a reduction in rainfall. • The median ensemble runs for RCP4.5 and 8.5 indicate an average annual rainfall reduction of -0.1 mm/day, and 0 mm/day, by the middle of the 2030s.
Drought	• The last 30 years have shown a trend towards reduced rainfall or heavy rainfall and drought	• The tendency towards rainfall reductions, and temperature increases by 2030, may exacerbate existing

¹ <http://www.climatechange.org.zw/sites/default/files/National%20Climate%20Policy.pdf>

	occurring back to back in the same season • Shifts in the onset of rains, increases in the proportion of low rainfall years • Increases in the frequency and intensity of mid-season dry-spells have been observed • Drought has increased in frequency and intensity	trends towards increasing frequency and intensity of droughts.
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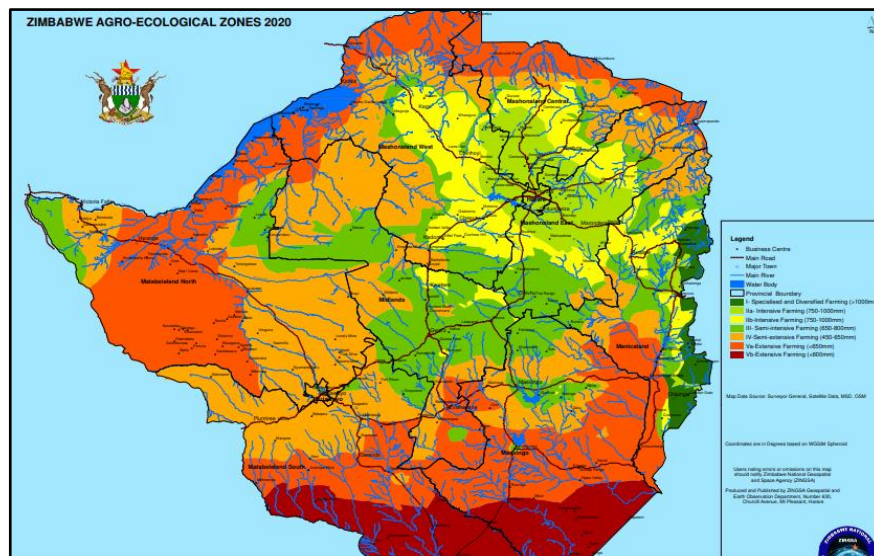
Source: USAID Climate Links: Zimbabwe 2020 climate change fact sheet²

Zimbabwe's agroclimatic zones are shifting, with drier zones expanding. Zimbabwe has agro-climatic regions demarcated mainly according to rainfall averages, edaphic factors and types of agricultural activities conducted in each of the zones. Zimbabwe first demarcated the agro-climatic zones in 1960 (see Map 3 below). The zones range from region I to V with region I being the wettest and V the driest. Generally, regions I and II are more suited for crop farming, with regions III, IV, and V more suitable for livestock and wildlife.

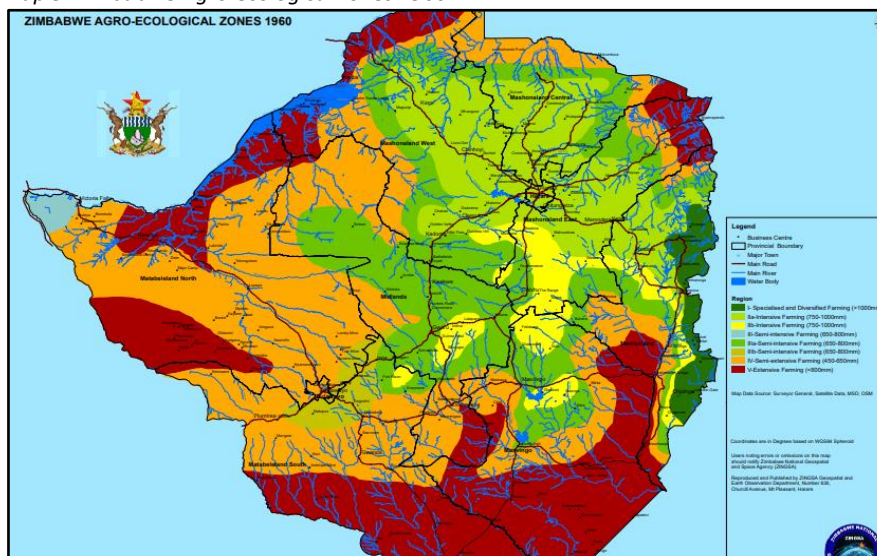
In 2020, the GoZ reclassified the regions (see Map 2 below); the reclassification showed that regions IV and V expanded, with regions I and III shrinking, pointing to a greater part of the country becoming drier. Natural regions IV and V increased by six percent and 23 percent respectively, whilst regions II and III shrunk by 49 percent and 14 percent respectively. This has negative implications for agricultural production, as most crop production happens in regions II and III. The new zoning further divided region V into Va and Vb. The GoZ asserts that Natural region Vb is unable to sustain any form of rain-fed agriculture without the support of irrigation. The maps below show the changes in agro climatic regions between 1960 and 2020.

² <https://www.climatelinks.org/resources/climate-risk-profile-zimbabwe>

Map 2: Zimbabwe Agro-ecological zones 2020



Map 3: Zimbabwe Agro-ecological zones 1960



Source: <https://zimfact.org/factsheet-climate-change-redraws-zimbabwes-agro-ecological-map>

Greenhouse Gasses Emissions and Mitigation³

Zimbabwe is a small net emitter of Greenhouse Gases (GHGs) contributing approximately 0.071 percent to global emissions. The main sources of GHGs in Zimbabwe are the Agriculture Forestry and Other Land Use (AFOLU) sector (54 percent) and the energy sector (33 percent). Under a business-as-usual scenario, without additional mitigation policy measures, GHG emissions in Zimbabwe are projected to increase by 110 percent to 75.4 MtCO₂ eq by 2030. With implementation of identified mitigation measures the GoZ estimates that this can be reduced by 40 percent to 44.7 MtCO₂ eq. The 40 percent

reduction target is however conditional on external financial support, development of new technologies, and capacity development.

The GoZ developed a Low Emission Development Strategy (LEDS) in 2021. Zimbabwe plans to reduce GHG emissions by improving energy efficiency, using renewable energy sources, increasing forest cover, and improving waste management. Table 2 below summarizes the mitigation measures by sector.

Table 2: Summary of GoZ planned climate change mitigation measures

Sector	Summary of mitigation measures
Agriculture, Forestry and Other Land Use (AFOLU)	● Increase area of forest and plantation land ● Reduce area burned
Energy	● Reduced energy transmission and distribution losses ● Expansion of solar, biogas, and biodiesel ● Expansion of microgrids ● Fuel efficiency and public transport improvements
Industrial Processes and Product Use	● Improvement of industrial processes to reduce GHGs
Waste	● Increase conversion of waste to energy ● Long term organic matter composting

Source: Zimbabwe Revised Nationally Determined Contribution Report, 2021

Zimbabwe climate vulnerability

The IPCC⁴ defines vulnerability as the degree to which a system is susceptible to, and unable to cope with adverse effects of climate change, including climate variability and extremes. The ND Gain Country index, which measures countries' climate vulnerability and readiness to improve resilience, ranks Zimbabwe 171 out of 182 countries. According to the index, Zimbabwe is the 38th most vulnerable country and the 5th least ready country for climate change in the world⁵. The index uses countries' economic, social and governance status to determine readiness to the impact of climate change. To calculate vulnerability, the index utilizes data on key variables such as food production, food demand, water supplies, public health, ecosystem services, and infrastructure.

Zimbabwe is vulnerable to climate change impacts due to several socio-economic, political, and climatic factors. These factors include a weak economy, poor governance, high poverty rates, and a predominantly rural population which relies on rainfed agriculture for livelihoods. Although Zimbabwe's real GDP rose by 6.3 percent in 2021⁶, Zimbabwe's economy has largely been in free fall over the last two decades, with cycles of hyperinflation. Weak economic performance is linked to poor governance and corruption. The weak economy reduces the government's ability to fund climate change programs and implement climate smart policies. The fragile economy stifles private sector players' investment in climate change adaptation and mitigation efforts. At least 49 percent of Zimbabweans live in extreme poverty, making Zimbabwean households even more susceptible to the impacts of climate change such as increased disasters, drought, and human-wildlife conflict. Agriculture employs 66.27 percent⁷ of the Zimbabwean workforce. The

⁴ https://www.ipcc.ch/site/assets/uploads/2018/03/ar4_wg2_full_report.pdf

⁵ <https://gain.nd.edu/our-work/country-index/rankings/>

⁶ <https://www.imf.org/en/News/Articles/2022/03/24/pr2288-zimbabwe-imf-executive-board-concludes-2022-article-iv-consultation>

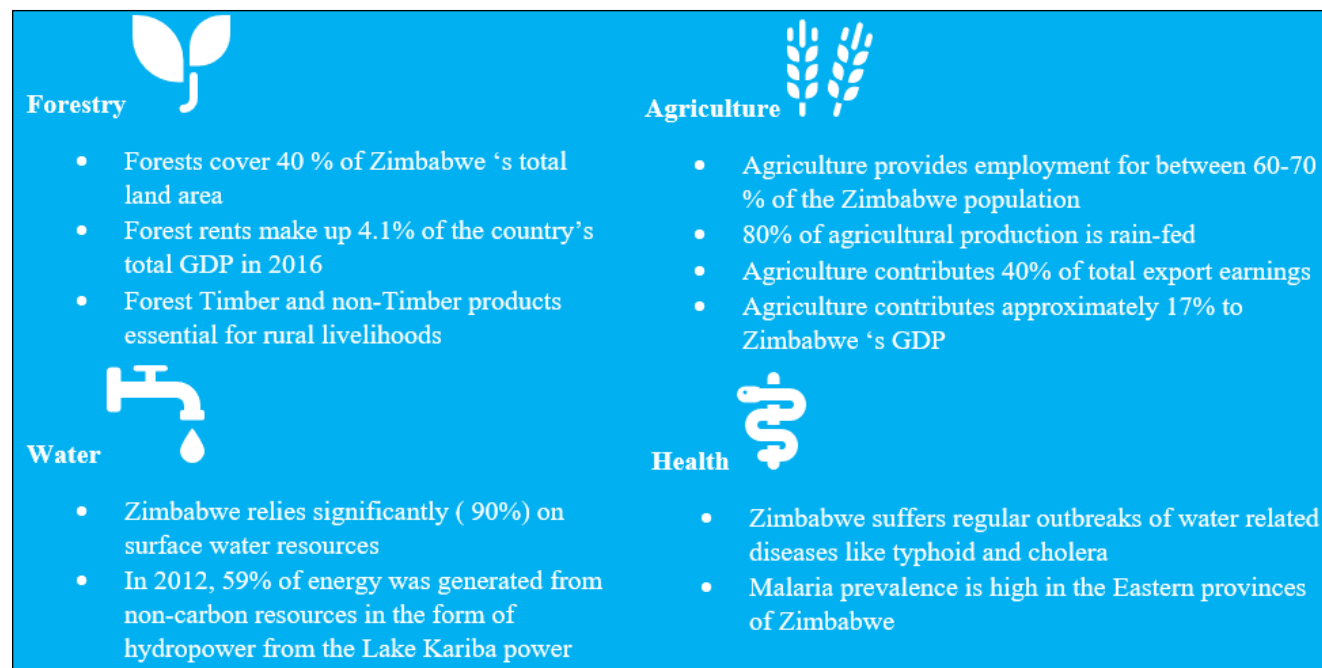
⁷ <https://tradingeconomics.com/zimbabwe/employment-in-agriculture-percent-of-total-employment-wb-data.html>

agriculture sector is particularly vulnerable to climate change, as an estimated 80 percent⁸ Zimbabwean agriculture is rainfed.

Climate change sector impacts

Climate change has had and is projected to continue having significant impacts on several sectors important to Zimbabwe, including agriculture, water and sanitation, forestry, natural resources management, and health. Figure 3 below illustrates how these sectors are vital for the Zimbabwean economy and livelihoods:

Figure 3: Select sectors affected by climate change



Sources: Zimbabwe National Climate Change policy, FAO⁹, World Bank

Table 3 below further summarizes climate change impacts on these important sectors:

Table 3: Summary of sectoral climate change impacts

Sector	Summary of climate change impacts
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⁸ https://www.usaid.gov/sites/default/files/documents/1866/Zimbabwe_FFP_CRP_WITHOUT_Adaptive_Measures.pdf

⁹ <http://www.fao.org/zimbabwe/fao-in-zimbabwe/zimbabwe-at-a-glance/en/http://www.fao.org/zimbabwe/fao-in-zimbabwe/zimbabwe-at-a-glance/en/>

Agriculture	Crop Production: • Key crops like maize and millet are susceptible to moisture stress. With 80 percent of farmers relying on rain fed agriculture, prolonged droughts and erratic rainfall leads to reduced yields and subsequent food shortages • Flooding incidents result in crop damage, erosion, and leaching of nutrients • Both dry periods and extremely wet periods are related to increase incidence of pests Livestock • Moisture stress leads to reduced quality of pasture and its carrying capacity, affecting livestock reproduction and growth rates; studies show that rangeland Net Primary Production (NPP) could drop from the current level of eight tons/hectare per year to slightly above five per year by 2080 • Livestock loss due to water and pasture shortages • Climate change may alter the distribution and presence of disease vectors for animals like ticks and fleas • Flooding or wet conditions can result in increased vectors for livestock disease such as foot rot
Water	• Reduced rainfall will result in less water available for animal and human consumption • Reduced water availability for the productive sectors including agriculture • With 10 percent of Zimbabwe relying on groundwater, reduced rainfall will affect groundwater recharge and water availability for a significant proportion of the population; the percentage of population at very high risk of “groundwater drought” could rise from 32 percent to 86 percent. • Reduced runoff will negatively impact hydropower generation
Natural Resources Management	• Degradation of rangeland and soil due to water scarcity and poor rangeland management and increased pressure on natural resources for livelihoods (forests, forest products) • Negative impacts on agriculture may have spillover effects on increased local wildlife poaching as households seek alternative livelihood sources • Deaths and reduced reproduction of wildlife due to water scarcity • Droughts exacerbate and increase human-wildlife conflict
Health	• Climatic changes may change the distribution of disease vectors like mosquitoes • Flooding results in increased standing water leading to vectors such as mosquitoes • Water shortages may increase the incidence of waterborne and diarrheal diseases like cholera and typhoid; Zimbabwe faced outbreaks in 2008 and 2017 and suffers periodic typhoid outbreaks • Secondary effects on health (e.g stunting) from food insecurity
Forestry	• Climate change will potentially influence the plantation species composition of the forest ecosystems, the extent of forest ecosystems, species volume and density, biodiversity characteristics, and the frequency and intensity of forest fires

Sources: CIMMYT¹⁰, Africa Wildlife Foundation¹¹, World Bank, Zimbabwe Food For Peace Zimbabwe Climate profile, World Health Organization¹²

¹⁰ <https://www.cimmyt.org/news/zimbabwe-enacts-new-strategy-in-fall-armyworm-fight/>

¹¹ <https://www.awf.org/news/turning-conservation-severe-droughts-food-insecurity-spike>

¹² <https://www.who.int/csr/don/05-october-2018-cholera-zimbabwe/en/>

Sector climate risk analysis

Given the current and expected climatic changes, the vulnerability of Zimbabwe to climate change, and the sectors in which USAID/Zimbabwe programs, the Mission compiled the climate risk screening table below.

All programs with high or moderate risks will consider climate risks during project design and implementation. This may include adding climate resilience actions to solicitations and including climate resilience in work plans and monitoring and evaluation. In addition, even when there are low climate risks to projects and activities, project managers and implementing partners will consider opportunities to include climate into programs. This may be true, for example, in governance programs, as highlighted in the table below. Mission activities should address climate risks by adopting and where necessary expanding measures outlined in Table 4 below. The table suggests actions to address climate risks and opportunities to strengthen climate resilience. The risk screening draws from recent sector-level climate risk analyses done for the Resilience Anchors activity Initial Environmental Examination (IEE), the Feed the Future Farm activity IEE, and the health portfolio IEE. These sector IEEs have more detailed climate risk information per sector.

Table 4: Zimbabwe CDCS Climate Risk Analysis Table

Development Objective & Sector	Climate Risks	Risk Rating	How Risks are Addressed	Opportunities to Strengthen Climate Resilience
Development Objective 1: Ability of Zimbabweans to live healthier lives and sustainably adapt, mitigate, and recover from shocks and stressors strengthened				
IR 1.1: Food and nutrition security enhanced				
Livestock production	Degradation of rangeland due to erratic rainfall. Drinking water shortages for animals. Increased disease incidence for animals. Increased pressure on groundwater resources to provide water for animals.	High	Improving rangeland management practices and optimal stocking. Improving water harvesting techniques. Promoting stress tolerant breeds of cattle. Breed improvement activities through introduction of higher quality bulls and rams, and the use of artificial insemination. Encouraging small livestock (goat and poultry) production that are adaptable to drier conditions. Strengthening early warning systems to gather and share accurate disease data. Promoting good livestock management practices.	The anticipated impacts of climate change present an opportunity for farmers to adopt good livestock practices that would still help even without climate change. The threat of climate change reinforces the need for these good practices.
Crop production	Shortened growing period for crops. Heat stress of crops due to increased average temperatures and more frequent and more severe heat waves.	High	Employing climate-smart agricultural techniques. Adapting drought tolerant and short season crop varieties. Promoting horticulture	Water scarcity presents an opportunity to adopt small grains that are more suited to the agro-ecological zones. (Extension services have been pushing for the adoption of these grains with limited success.)

Development Objective & Sector	Climate Risks	Risk Rating	How Risks are Addressed	Opportunities to Strengthen Climate Resilience
	Emergence and proliferation of crop pests and diseases. Reduced viability of some crop varieties in some agro-ecological regions. Increased pressure on groundwater resources as a substitute for rain and surface water.		diversification, honey production, community vegetable gardens, chillies, horticultural value addition e.g., honey into wax. Promoting crop types suitable for different agro-ecological zones such as small grains. Improving water harvesting and water conservation techniques in crop production. Reducing reliance on rain fed agriculture by adopting water efficient irrigation systems. Increasing farmers' access to finance to invest in irrigation equipment and other climate smart technologies.	Diversification of income supports resilience as households are more able to absorb shocks and stresses.
Small Scale infrastructure construction/rehabilitation	Destruction of infrastructure by extreme weather events like floods and storms	Moderate	Ensuring designs can withstand expected impacts of floods and storms. Using appropriate materials and workmanship to improve the strength of infrastructure. Ensuring all firms/contractors conduct climate risk management during the design phase of construction. Promoting improved soil and natural resources management to reduce soil erosion, siltation to	The construction or adoption of appropriate climate-smart technology in infrastructure activities can provide models to demonstrate the applied use of appropriate technology.

Development Objective & Sector	Climate Risks	Risk Rating	How Risks are Addressed	Opportunities to Strengthen Climate Resilience
			lessen the impact of flooding.	
IR 1.2: Health outcomes improved				
Health	Reduced water quality and quantity due to changing rainfall patterns (including floods) and increased frequency, intensity and duration of droughts may affect provision of access to clean water and sanitation facilities. Increasing temperatures and variability in rainfall patterns can affect the geographic distribution, seasonal presence, and development rates of mosquitoes, which can affect the timing and location of efficacy of antimalarial activities.	Low	Ensuring climate risks to water supply and access are considered and managed as part of activity design. Enhancing disease vector surveillance, monitoring, mapping, and evaluation for data use and decision-making. Continue malaria disease monitoring to ascertain if there are any changes in malaria incidence related to increased temperatures. Consider changes in rainfall patterns, including floods in modeling, mapping and vector control. Reviewing, conducting, and/or improving analysis linking climate conditions with vector distribution, malaria incidence, and control measure efficacy.	Improved management of climate risks can address overall water security (including quality, quantity, and access), with benefits to sanitation, health, education, and livelihood security. Political will to address access to clean water can be leveraged to support broader climate resilience (e.g., through investment in climate services). Engagement with communities and individuals around these vector control activities can also be used to communicate climate risk management information. Efforts to improve monitoring and analysis of climate impacts on vector distribution and malaria transmission can result in broader advances in disease surveillance and climate information across the country.
IR 1.3: Ecosystem services strengthened				

Development Objective & Sector	Climate Risks	Risk Rating	How Risks are Addressed	Opportunities to Strengthen Climate Resilience
Biodiversity conservation & Natural resources management	Climate change impacts in Zimbabwe have the potential to reduce species numbers and habitat suitability, such as increased temperatures and drought (which can result in water stress), creating more competition for scarce resources between humans and wildlife, and increased fire risk¹³. Climate change impacts that harm agricultural and livestock production, such as increased temperatures, drought, and wildfire risk, may also cause more people to turn to wildlife crime as alternative livelihood sources. Increased spread of invasive species impacts the habitat quality in protected areas. Climate change projections suggest that conditions will result in stresses for Baikiaea and Miombo forest ecosystems and that conditions will be more apt for Mopane forests.	Moderate to high depending on the site / species / landscape.	Promoting livelihood diversification and human-wildlife conflict mitigations in areas bordering parks and protected areas to reduce pressure on natural resources and wildlife. Promoting ecotourism, sustainable harvest of non-timber forest products, and conservation enterprises for communities to derive sustainable value from natural resources. Fostering an inclusive and sustained biodiversity economy with diversified revenue inflows for conservation area management authorities and local communities by promoting climate-smart value chains. Promote micro and small-scale renewable energy use at the community and household-level, particularly in the agricultural sector. Enhance ecosystem restoration/regeneration including promoting reforestation (e.g., indigenous tree planting initiatives), agroforestry activities, management of invasive species,	Use the attention on climate change to promote awareness on the importance of biodiversity and sustainable livelihoods, especially in protected areas.

¹³ Zimbabwe Biodiversity and Tropical rainforests assessment report

Development Objective & Sector	Climate Risks	Risk Rating	How Risks are Addressed	Opportunities to Strengthen Climate Resilience
			and strengthening water resource security through soil and water conservation projects.	
Financial services for agriculture and conservation enterprises	Higher cost of finance due to increased risk profile of agriculture and conservation enterprises.	Low	Exploring small scale farmers crop, livestock, and conservation enterprises insurance options. Promoting Village savings and loans (VSLs) to help farmers access financing and markets to sell their produce.	Adoption of insurance reduces farmers' risk and reinforces farming and conservation enterprises as a business.
Water	Increased frequency, intensity, and duration of drought and increased temperatures leads to more pronounced water scarcity (ground and surface) and puts pressure on existing water sources. Increased risk of storms and cyclones especially in the eastern parts of Zimbabwe leading to flooding.	Moderate	Promoting water use efficiency for both domestic and agricultural use. Promoting a multiplicity of water sources including rainwater harvesting, wells, and boreholes. Considering broader watershed management approaches. Promoting improved disaster early warning and response systems. Promoting improved natural resources management to reduce soil erosion, silting and flash flooding.	Watershed-wide approaches encourage a broader analysis of water resources adequacy and management. Water efficient methods might encourage higher productivity and lower costs.
IR 1.4: Community cohesion enhanced				
	Increased pressure on natural resources like water and land may exacerbate rural to urban migration, stressing cities' infrastructure and social services.	Low	Working on community level natural resources governance. Promoting social cohesion programming at the local level to improve management of natural	Improving local governance structures strengthens their ability to manage natural resources.

Development Objective & Sector	Climate Risks	Risk Rating	How Risks are Addressed	Opportunities to Strengthen Climate Resilience
	Climate change related degradation of natural resources reduces livelihood outcomes for communities, which may drive local level conflict.		resources and to reduce competition-induced conflict. Positioning natural resource management (NRM) activities to leverage the implementation of governmental devolution policy currently underway in Zimbabwe, including long-term land tenure reform and increased momentum for community conservancy models (e.g., deriving benefits).	
DO 2: Youth contribution to Zimbabwe's development progress enhanced				
IR 2.1: Youth innovation, employability and entrepreneurship enhanced				
Financial services	Given the increased risk of funding agriculture and natural resources sectors because of climate change, the cost of financing may go up and types of financing available to youth may go down.	Low	Diversifying types of activities away from sectors that are more susceptible to the effects of climate change. Improving climate change considerations in activities when applying for funding. Diversifying funding streams from traditional finance to other models including input financing and group savings and lending schemes.	Youth seeking financing have an opportunity to consider climate risks in their ventures and therefore improve chances of success.
Youth training, skills, and capacity building	Climate change may render some training out-of-date and may change the types of skills required by youth to start and run businesses and for employment.	Low	Capacity building and training curriculum should include climate change awareness and considerations.	Climate risks present a chance to expand climate change to other sectors that traditionally would not consider climate issues.
Youth access to productive resources	Climate change-linked degradation of productive assets such as land may lead to increased competition for those resources that would still be functional. Such a	Low	Diversify youth activities beyond reliance on natural resources based productive assets. Work with traditional local	The climate challenge presents youth with an opportunity to think beyond natural resource base assets and enterprises. The need to engage traditional

Development Objective & Sector	Climate Risks	Risk Rating	How Risks are Addressed	Opportunities to Strengthen Climate Resilience
	situation would increase the cost of the assets and limit youth access.		authorities and stakeholders to support youth in accessing productive resources like communal land.	leadership may also be used to expand youth s' social capital.
IR 2.2: Youth agency enhanced				
Civic participation and leadership	The secondary effects of climate change may include low economic production and reduced returns from livelihood and economic activities. With a struggling economy youth may focus more on day-to-day survival and making ends meet while reducing attention to broader issues like civic participation and youth leadership.	Low	Integrating livelihoods programming into youth civic participation and education activities.	Exploring the link between civic participation and climate change presents an opportunity for youth participation in issues around climate justice and following up on GoZ climate change commitments.
IR 2.3: Use of health and social services by youth increased				
<i>Refer to IR 1.2 analysis</i>				
DO 3: Good governance improved				
IR 3.1: Citizen participation in development and democratic processes enhanced	The secondary effects of climate change may include low economic production and reduced returns from livelihood and economic activities. With a struggling economy, citizens may focus more on day-to-day survival and making ends meet while reducing attention to broader issues like civic participation and youth leadership.	Low	Integrating livelihoods programming into civic participation activities.	Exploring the link between civic participation and climate change presents an opportunity for citizen participation in issues around climate justice and following up on GoZ climate change commitments.
IR 3.2: Culture of rule of law and constitutionalism enhance	Climate change linked global competition for resources may fuel national and internationally linked corruption around access to natural resources further trumping the rule of law fight. The competition may lead to uneven application of the law.	Low	Activities can include anti-corruption work on natural resources management issues.	Work on rule of law and corruption related to climate change may open avenues for follow up on fair enforcement of climate change related laws and policies. There is also an opportunity for work on accountability for climate change commitments.

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IR 3.3: Accountability of governance institutions and systems increased	The economic pressure caused by climate change impacts may negatively affect the operation of local level governance structures such as asset management committees and impact their service delivery	Low	Training and support to governance institutions should include climate change impacts and strategies for mitigating the impacts on smooth running of the committees.	Climate change considerations may lead to more discussions and plans on enhancing sustainability of governance structures.

Clearance Page

Name	Clearance	Date
Lane Mears	Cleared over email	April 28, 2022
Kevin Fox	Cleared over email	April 28, 2022
Sara Marshal	Cleared over email	May 23, 2022
Tara Simpson	Cleared over email	April 6, 2022