Climate Adaptation and Protected Areas Initiative

Nature-Based Solutions Inventory for Zimbabwe

June 2026

What Is the Nature-Based Solutions Inventory, and Who Is It for?

This inventory aims to showcase the variety of nature-based solutions (NbS) projects completed recently or currently under implementation in Zimbabwe. It highlights the various responses across the country to the climate and biodiversity crisis, as well as efforts to address the increasing risks and vulnerabilities posed by a changing climate.

The inventory provides information on the approach taken by these projects, the climate and biodiversity risks they address, the intended beneficiaries, and the ecosystems they target. This information is beneficial for government officials, adaptation and conservation practitioners, and donors. It can help them understand the landscape of NbS implementation in the country; pinpoint existing gaps, potential synergies, and collaboration opportunities; and avoid duplication.

The inventory is a living document developed by the International Institute for Sustainable Development (IISD) under the Climate Adaptation and Protected Areas (CAPA) Initiative, funded by Global Affairs Canada. The CAPA Initiative is implemented in Zimbabwe by WWF Zimbabwe.

What Are NbS?

NbS are "actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits" (United Nations Environment Assembly of the United Nations Environment Programme, 2022). These actions help people and communities mitigate the effects of and adapt to climate change, thereby increasing ecosystem resilience. They can also provide social co-benefits by recognizing and involving all groups, especially underrepresented groups, as active agents of change in the implementation of NbS for adaptation projects. This involves assessing how climate change

will affect people of all genders and social backgrounds and identifying how NbS can help address these impacts.

Ecosystem-based adaptation (EbA) actions, a subset of NbS, are especially of interest: they use "biodiversity and ecosystem services as part of an overall adaptation strategy to help people to adapt to the adverse effects of climate change" (Secretariat of the Convention on Biological Diversity, 2009). They include measures that protect, conserve, restore, sustainably use, and manage natural ecosystems to strengthen the resilience of communities and ecosystems to the impacts of climate change.

Why Do NbS, Especially EbA, Matter for Zimbabwe?

Zimbabwe faces a range of climate-related challenges, including prolonged droughts and unpredictable rainfall that threaten water security and agriculture, rising temperatures that impact ecosystems and biodiversity, and increased vulnerability of communities reliant on natural resources for their livelihoods (Government of Zimbabwe, 2024; Ministry of Environment, Water and Climate, 2015).

NbS and EbA offer cost-effective and sustainable alternatives to conventional infrastructure-based solutions by harnessing ecosystem services to address these challenges. For instance, mangrove and wetland restoration in riverine areas helps mitigate flooding and improve water quality; reforestation initiatives combat desertification and create carbon sinks; and wildlife corridor management reduces human–wildlife conflict and supports biodiversity. These interventions offer multiple benefits, including enhanced climate resilience, improved biodiversity, and socio-economic upliftment, making them crucial for Zimbabwe's climate adaptation strategy.

What Are We Learning About NbS in Zimbabwe?

At the time of writing, the inventory revealed several key insights about NbS implementation in Zimbabwe. Geographically, the NbS projects are concentrated in areas such as Hwange National Park, Zambezi National Park, Zambezi Valley, and the Victoria Falls region. These areas are biodiversity hotspots and face significant climate risks, making them priority locations for conservation efforts. Reforestation and wildlife corridor conservation are the primary focus of NbS projects. For example, community-driven reforestation efforts near Hwange National Park not only restore degraded lands but also improve agricultural productivity and reduce food insecurity.

Many NbS projects emphasize community participation, integrating traditional knowledge with modern conservation practices. This approach ensures equitable distribution of benefits and strengthens local ownership. Projects in the inventory span diverse sectors, including water management, wildlife conservation, sustainable agriculture, and forestry. Each contributes to improving Zimbabwe's climate resilience and biodiversity conservation. The inventory highlights alignment with national strategies, such as Zimbabwe's Climate Policy and the KAZA TFCA Management Plan, which prioritize NbS for adaptation and mitigation.

Measurable outcomes include hectares of wetlands restored, catchments rehabilitated, and diversified livelihoods, including beekeeping and climate-smart agriculture. Zimbabwe's portfolio stands out regionally for its integration of ecological restoration, livelihood resilience, and inclusive governance, offering replicable lessons across Southern Africa.

Distribution of NbS Projects in Zimbabwe

Zimbabwe's NbS for adaptation projects presented in the inventory are distributed across five verified regions. The Western region, covering Hwange and Binga districts in Matabeleland North, hosts three projects. The Northern region, covering Hurungwe district in Mashonaland West, and Mbire and Muzarabani districts in Mashonaland Central, has one project. The Southern region, comprising Gwanda, Mwenezi, and Chiredzi districts in Matabeleland South, and Masvingo, together with Bikita district in Masvingo, leads with four projects. The Eastern region, covering Chimanimani, Buhera, and Chipinge districts in Manicaland, and Insiza district in Matabeleland South, features three projects. Finally, the Central region, covering Chivi district in Masvingo Province, has one project. In total, the inventory documents 10 NbS for adaptation projects, with the highest concentration found in the Southern region.

NbS Inventory

1	Climate Adaptation and Protected Areas Initiative		
Implementation entity	WWF Zimbabwe, in partnership with IISD		
Project status	Ongoing (2023–2026)		
Location	**Districts:** Hwange and Binga		
Intended beneficiaries	Smallholder farmers, beekeepers, conservation institutions, community-based organizations, and local community groups, including underrepresented individuals		
Societal challenges addressed by NbS	Climate mitigation	Climate adaptation	
	Human health	Food security	
	Economic & social development	Biodiversity degradation & loss	
	Disaster risk reduction	Water security	
Ecosystem(s) targeted	Wetlands, springs, protected terrestrial ecosystems		
Ecosystem services provided	Provisioning of food, provisioning of water, pollination, climate regulation, flood control		
Description of NbS	The project is implementing a set of NbS to strengthen water security, restore degraded ecosystems, reduce erosion, and support climate-resilient livelihoods in target communities. Key interventions are as follows: 1. Rehabilitation of the catchment area around Chidobe Spring, covering approximately 80 hectares 2. Desilting of Chidobe Dam, with an estimated volume of 82,500 m^3 3. Fencing of a 4.5 km stretch of spring catchment area in Binga and Hwange Additional restoration measures include planting contour bands reinforced with vetiver grass in upstream areas to reduce runoff, stabilize soils, and prevent further degradation of downstream spring systems. Wetland restoration and gully rehabilitation are also being undertaken through the installation of gabion check dams to slow surface water flows, reduce soil erosion, and restore ecological function, with approximately 50 hectares of wetlands targeted for rehabilitation.		

	The project also supports adaptation through climate-resilient livelihood interventions designed to reduce pressure on natural resources and manage potential human–wildlife conflict associated with improved water availability following dam restoration. These interventions include beekeeping and chili gardens in Chidobe, with 30 beehives provided to two women's groups and one youth group, along with the establishment of 1 hectare of chili production. In addition, the project is supporting the establishment of two tree nurseries and the clearance of invasive species around springs in Chitongo to improve ecosystem health and sustain water sources. Implementation of these NbS interventions follows a gender equality and social inclusion (GESI) integrated approach. Stakeholders and participants are trained to incorporate GESI considerations throughout implementation and decision making processes, and trained GESI champions within target communities help sustain inclusive participation, equitable representation, and continued community engagement in NbS activities.
Climate risks addressed	• Increased warming and heat waves • Drought and dry spells, which reduce agricultural productivity and livestock fodder availability • Rainfall variability and extreme precipitation events, which cause flash floods that affect infrastructure and wetland ecosystems • Strong winds and storm intensity • Water scarcity • Ecosystem vulnerability
Biodiversity risks addressed	• Habitat loss • Wetlands deterioration • Vegetation changes affecting fodder for both wildlife and livestock • Increased human–wildlife conflict
Reference	https://www.iisd.org/capa/kaza https://www.newsday.co.zw/local-news/article/200026616/wwf-launches-biodiversity-project-in-binga-hwange https://www.iisd.org/projects/climate-adaptation-and-protected-areas-initiative

2 Strengthening Biodiversity and Ecosystems Management and Climate-Smart Landscapes in the Mid to Lower Zambezi Region of Zimbabwe

Implementation entity	Ministry of Environment, Water, and Climate (Lead Implementer), in partnership with the United Nations Development Programme (UNDP), funded by the Global Environment Facility (GEF) and the Government of Denmark. At the local level, the project is implemented by local environmental committees.
Project status	Ongoing (2018–2026)
Location	**Districts:** Hurungwe, Mbire, Muzarabani
Intended beneficiaries	Local communities, including smallholder farmers, and fishing communities, particularly those in the marginalized rural areas of the Zambezi Valley

Societal challenges addressed by NbS

✓	Climate mitigation	✓	Climate adaptation
✓	Human health	✓	Food security
✓	Economic & social development	✓	Biodiversity degradation & loss
✓	Disaster risk reduction	✓	Water security

Ecosystem(s) targeted

- Riparian zones: critical for regulating water and maintaining aquatic biodiversity
- Floodplain ecosystems: seasonal wetlands that provide essential habitat
- Wildlife corridors: connectivity areas supporting species movement
- Protected areas: national parks and designated conservation zones
- Community lands: rural landscapes integrating conservation with sustainable use

Ecosystem services provided

- Water regulation: helping to maintain water flow, prevent erosion, and support aquatic biodiversity
- Carbon sequestration: contributing to climate mitigation by absorbing carbon
- Pollination services: supporting pollinators, which are essential for agriculture and biodiversity
- Livelihood support: sustainable resource use, including beekeeping and eco-friendly enterprises, enhances economic resilience

Description of NbS	The project promotes an integrated landscape approach to managing wildlife resources, carbon, and ecosystem services in the mid-to-lower Zambezi region of Zimbabwe, in the face of climate change. The project implements several targeted interventions designed to strengthen conservation efforts, restore degraded ecosystems, and enhance community resilience. These interventions collectively enhance ecosystem resilience, biodiversity conservation, and sustainable resource management, ensuring that natural resources are preserved for future generations while supporting the livelihoods of those dependent on the land. Key project interventions include the following: 1. Sustainable rangeland management reinforcement through rotational grazing systems, fire management strategies, and assisted natural regeneration to rehabilitate degraded grasslands 2. Catchment conservation, such as wetland protection measures, to enhance access to clean water in response to climate-induced water challenges 3. Supporting nature-based livelihoods involving beekeeping training for individuals, the introduction of a small grants program, and supporting women-led enterprises, ensuring economic stability while preserving ecological integrity 4. Strengthening local environmental governance, revitalizing ecological committees, and integrating community-based wildlife management through anti-poaching patrols and habitat restoration initiatives 5. Participatory land-use planning by engaging communities in scenario modelling, aligning conservation priorities with sustainable development objectives
Climate risks addressed	• Changing rainfall patterns, which are affecting water availability and ecosystem stability • Rising temperatures, which are impacting biodiversity and human settlements • Extreme weather events such as droughts and floods
Biodiversity risks addressed	• Poaching and illegal wildlife trade, which are threatening species such as elephants and rhinos • Loss of habitat due to land conversion and uncontrolled logging • Deforestation and land degradation driven by unsustainable farming and settlement expansion • Human–wildlife conflict, which is affecting conservation efforts • Declining populations of endangered species, which requires targeted conservation strategies
Reference	https://www.undp.org/zimbabwe/projects/zambezi-valley-biodiversity-project-gef-6 https://www.thegef.org/projects-operations/projects/9660

3 Locally-led Indigenous Nature-based Solutions for Climate Change Adaptation in Zimbabwe

Implementation entity	Mennonite Central Committee Canada, with financial support from the Government of Canada, in partnership with the following: • Brethren in Christ Compassionate Development Services – supporting community-based climate adaptation and resilience • Kulimambobumi Training Centre – providing training and capacity building for sustainable agriculture and NbS • Score Against Poverty – working on women's empowerment, clean energy solutions, and community-led adaptation
Project status	Ongoing (2023–2026)
Location	**Districts:** Gwanda, Mwenezi, Binga
Intended beneficiaries	Vulnerable groups of women, men, boys, and girls. Directly benefits approximately 66,577 people (including 3,817 women and 4,871 men over 65 years old): • 33,553 women • 33,024 men • 7,783 young women • 8,326 young men
Societal challenges addressed by NbS	Climate mitigation; Climate adaptation Human health; Food security Economic & social development; Biodiversity degradation & loss Disaster risk reduction; Water security
Ecosystem(s) targeted	Terrestrial ecosystems, including forests and woodlands; wetlands and riverine systems; and agricultural landscapes
Ecosystem services provided	• Water regulation and retention • Soil fertility improvement and erosion control • Climate regulation (carbon sequestration, temperature moderation) • Biodiversity conservation and habitat restoration • Provisioning of food, fuel, and income • Cultural services (strengthened Indigenous knowledge systems)

Description of NbS	The NbS for adaptation being implemented in the project include restoration of degraded ecosystems through reforestation, soil and water conservation, and biodiversity protection. The project also involves integrating NbS into agriculture through practices such as crop diversification, agroforestry, and conservation farming to strengthen food security, and empowering women and vulnerable groups to establish sustainable value chains and market opportunities based on biodiversity-friendly products. These interventions reduce vulnerability to climate change, foster low-carbon and climate-resilient economies, and safeguard biodiversity while building inclusive livelihoods. By March 2025, the project had restored 94 hectares of degraded land through farmer-managed natural regeneration and agroforestry, with the land showing early signs of ecological recovery. It further strengthened Indigenous knowledge systems by validating 111 traditional practices that support climate-resilient farming. It also increased women's leadership across 47 NbS governance structures, with gender dialogues helping to shift community norms toward more inclusive decision making.
Climate risks addressed	• Drought • Flooding • Extreme temperatures
Biodiversity risks addressed	• Loss of biodiversity and ecosystems due to climate change and unsustainable practices • Degradation of natural habitats (forests, rangelands, wetlands) that weakens ecosystem services such as water regulation and soil fertility • Decline in ecosystem productivity, leading to reduced availability of natural resources for communities The risks are addressed through various interventions, such as the following: • Ecosystem restoration through reforestation, soil and water conservation, and wetland protection to rebuild habitats and strengthen biodiversity • Agroecological practices (agroforestry, crop diversification, conservation farming) that integrate biodiversity into agricultural systems, improving resilience and reducing pressure on natural ecosystems • Sustainable value chains based on biodiversity-friendly products, reducing reliance on destructive practices and creating incentives for conservation • Community capacity building (especially for women) to design and implement NbS that protect biodiversity while supporting livelihoods

Reference	https://w05.international.gc.ca/projectbrowser-banqueprojets/project-projet/details/P011866001 https://nabsaclimate.org/project/locally-led-indigenous-nature-based-solution-for-climate-change-adaptation-in-zimbabwe-by-mennonite-central-committee/ https://mcc.org/our-stories/farmers-helping-farmers-zimbabwe https://mcc.org/our-stories/mcc-receives-15-million-climate-change-work

4 Coping with Drought and Climate Change in the Chiredzi District

Implementation entity	Government of Zimbabwe through the Ministry of Environment, Water, and Climate, in collaboration with UNDP and the GEF
Project status	Completed (2012)
Location	**District:** Chiredzi
Intended beneficiaries	Farming communities, particularly subsistence farmers; pastoralists
Societal challenges addressed by NbS	Climate mitigation; Climate adaptation; Human health; Food security; Economic & social development; Biodiversity degradation & loss; Disaster risk reduction; Water security
Ecosystem(s) targeted	Dryland ecosystems, woodlands, savannahs
Ecosystem services provided	Water provisioning, soil fertility and erosion control, biodiversity conservation, food fuel provisioning, carbon sequestration
Description of NbS	The NbS interventions in the project were embedded in a range of sustainable agricultural approaches, including grazing management, woodland management, community seed producers' networks, crop diversification, training of communities in pasture management, establishment of fodder banks, and commercial seed production. These interventions supported more than 8,600 individuals and 33,700 livestock, improving water retention, promoting biodiversity, and stabilizing livelihoods. Community-based natural resource management has played a crucial role in conserving wetlands and forests, which provide essential ecosystem services. Monitoring of climatic information was also undertaken, along with river basin analysis, to support the production of a community-based drought mitigation and preparedness plan and a catchment management plan that enabled the protection of water sources, including rivers, on which communities depend. Particular NbS interventions in the target districts included agroforestry, conservation agriculture, rainwater harvesting, and water management using small dams, wells, and rainwater tanks, as well as rangeland management and livestock diversification, and sustainable livelihoods such as beekeeping.
Climate risks addressed	• Drought • Water scarcity • Temperature extremes

Biodiversity risks addressed	• Habitat degradation: by promoting sustainable land-use and restoration practices such as afforestation, agroforestry, and rangeland management • Habitat loss: through improving biodiversity in degraded areas • Soil degradation: through conservation agriculture and reforestation efforts
Reference	https://www.adaptation-undp.org/projects/coping-drought-and-climate-change-cwdcc-zimbabwe https://arkletontrust.co.uk/zimbabwe-coping-drought-climate-change/ https://www.weadapt.org/wp-content/uploads/2023/05/5419aa0646552alm-zimbabwe-case-study-v9-dec-2010-jtaeds-0.pdf

5	Scaling up adaptation in Zimbabwe with a focus on rural livelihoods project, by strengthening integrated planning systems

Implementation entity	UNDP, Ministry of Environment and Natural Resources Management, Oxfam International			
Project status	Completed (2021)			
Location	**Districts:** Chimanimani, Buhera, Chiredzi			
Intended beneficiaries	Rural households, including women and smallholder farmers, with a focus on vulnerable populations living in climate risk–prone areas			
Societal challenges addressed by NbS		Climate mitigation		Climate adaptation
		Human health		Food security
		Economic & social development		Biodiversity degradation & loss
		Disaster risk reduction		Water security
Ecosystem(s) targeted	Rivers and wetlands; savannah woodlands; agroecosystems; dryland ecosystems characterized by semi-arid conditions			
Ecosystem services provided	Water regulation; flood and drought regulations; soil fertility improvement; biodiversity support through ecosystem restoration; carbon sequestration; agriculture livelihoods support			
Description of NbS	The project focused on climate-proofing the Nyanyadzi Irrigation Scheme and implementing NbS to enhance rural livelihoods, climate resilience, and biodiversity conservation. Key interventions included integrated watershed management, erosion control, capacity building, and market-driven agricultural solutions. Through community-led efforts, gabions, gully plugs, and silt traps were constructed to minimize siltation and improve groundwater recharge. At the same time, stream training and drainage systems helped manage runoff and protect agricultural land. Additionally, rainwater harvesting and revegetation initiatives improved ecosystem health and sustainability. Farmers received training in climate-smart agriculture, including crop diversification and soil conservation, and were linked to private sector markets to secure stable livelihoods. The establishment of village savings and loans associations provided financial access, particularly for women, helping them build resilience through the accumulation of livelihood assets. Smallholder farmers were also trained in weather data collection, thereby strengthening climate-informed decision making and ensuring the long-term sustainability of their adaptation strategies. Key project interventions included watershed management, which involved constructing gabions, gully plugs, and silt traps to control erosion and enhance groundwater recharge, with the specific interventions outlined below:			

	1. Stream training and drainage: implementing diversion drains and hydraulic structures to redirect runoff safely 2. Rainwater harvesting and revegetation: strengthening ecosystem health through sustainable water management and vegetation restoration 3. Climate-smart agriculture: establishing field climate schools to train farmers in crop diversification and soil conservation The NbS interventions are coupled with the integration of livelihood and market resilience, climate services, and financial inclusion, ensuring a holistic approach to community resilience. By linking farmers to private sector markets for agricultural produce and livestock sales, these interventions strengthen economic stability and create sustainable market pathways. Through climate services, farmers receive training in weather data collection, empowering them to adopt climate-adaptive agricultural practices that enhance productivity and long-term sustainability. Additionally, financial inclusion is advanced through the expansion of village savings and loans associations, improving access to affordable financing, particularly for women, thus fostering equitable participation in economic activities. This interconnected framework reinforces both environmental sustainability and socio-economic empowerment, ensuring that NbS principles are effectively aligned with real-world community needs.
Climate risks addressed	• Drought and prolonged dry periods • Erratic rainfall and unpredictable rainfall patterns • Poor agricultural productivity • Floods • Temperature extremes • Water scarcity
Biodiversity risks addressed	• Habitat degradation and loss • Loss of indigenous species • Invasive species control • Species extinction
Reference	https://oxfamsouthernafrica.wordpress.com/2019/10/11/scaling-up-adaptation-in-zimbabwe-with-a-focus-on-rural-livelihoods-project/ https://www.thegef.org/projects-operations/projects/4960

6 Scaling up Community Action for Livelihoods and Ecosystems in Southern Africa and Beyond (CBA-SCALE Southern Africa+) – Zimbabwe

Implementation entity	CARE International, in partnership with the Ministry of Environment, Climate and Wildlife, the Environmental Management Agency, the Forestry Commission, and the Bikita and Chiredzi Rural District Councils
Project status	Ongoing (2023–2028)
Location	**Districts:** Bikita, Chiredzi
Intended beneficiaries	Local communities that are vulnerable to climate risks, including women and marginalized groups; smallholder farmers; policy-makers; local authorities; civil society organizations; technical experts
Societal challenges addressed by NbS	Climate mitigation; Climate adaptation Human health; Food security Economic & social development; Biodiversity degradation & loss Disaster risk reduction; Water security
Ecosystem(s) targeted	Semi-arid landscapes vulnerable to desertification; riparian zones, agroecosystems, and protected areas including community-managed forests
Ecosystem services provided	Carbon sequestration and storage, soil stabilization, water filtration, flood regulation, sustainable food production, pollination services, climate regulation, watershed protection
Description of NbS	The NbS in the project focus on reforestation, sustainable land management, water harvesting, and restoration of riparian zones. The initiative aims to strengthen food and water security; mitigate the impacts of heat waves, droughts, and extreme rainfall; and safeguard critical ecosystems affected by unsustainable land-use practices. Ecosystem restoration efforts involve wetland rehabilitation, soil conservation, and community-led conservation activities, while sustainable land management will promote climate-smart agriculture, agroecological techniques, and livelihood diversification. Other key interventions include community adaptation action plans, which guide locally led strategies, and participatory climate risk and vulnerability assessment to identify climate-related risks. The project ensures gender responsiveness by implementing inclusive adaptation actions that prioritize the needs of women and marginalized groups, thereby ensuring their participation in decision making and access to climate adaptation resources.

Climate risks addressed	• Drought • Recurring droughts (including El-Niño-induced drought) • Heat waves • Extreme rainfall and flooding • Food and nutrition insecurity
Biodiversity risks addressed	• Ecosystem degradation due to unsustainable land-use practices • Loss of habitat and declining species populations • Soil erosion and reduced vegetation cover • Water scarcity, which is affecting aquatic biodiversity
Reference	https://www.international-climate-initiative.com/en/project/scaling-up-community-based-adaptation-for-livelihoods-and-ecosystems-in-southern-africa-cba-scale-southern-africa-21-ii-191-africa-a-cba-scale-southern-africa/ https://spikedmedia.co.zw/community-based-adaptation-essential-under-cba-scale-southern-africa-project/ https://allafrica.com/stories/202403040472.html

7 Enhancing Community Resilience and Sustainability (ECRAS) Project

Implementation entity	CARE Zimbabwe, in partnership with PLAN International and the International Crops Research Institute for the Semi-Arid Tropics			
Project status	Completed (2019)			
Location	**Districts:** Chiredzi, Mwanezi			
Intended beneficiaries	Women (50% participation), youth-headed households, farmers and pastoralists			
Societal challenges addressed by NbS		Climate mitigation		Climate adaptation
		Human health		Food security
		Economic & social development		Biodiversity degradation & loss
		Disaster risk reduction		Water security
Ecosystem(s) targeted	Agroecosystems, grazing lands/rangelands, wetlands, dryland ecosystems			
Ecosystem services provided	Soil fertility for stable yields, pest control for crop protection, forage for livestock, erosion prevention, flood mitigation, water purification, drought-resilient vegetation, desertification control			
Description of NbS	The project adopted a holistic approach to NbS, empowering communities to mitigate climate and biodiversity risks while enhancing their livelihoods. Through community-based natural resource management, the project promoted sustainable land-use practices, ensuring the conservation of grazing lands, wetlands, and dryland ecosystems while supporting ecosystem restoration efforts. Notably, over 47,000 beneficiaries across Chiredzi and Mwenezi districts were reached through the project's interventions. The project deliberately targeted marginalized groups to build their resilience, setting a threshold of model households that are 25% female-headed and 20% youth-headed to demonstrate resilient practices, such as small grain production, water harvesting, and integrated livestock systems. Climate-smart agriculture techniques, such as growing drought-resistant, short-season, and high-yield crops like sorghum and millet, were promoted. Agroforestry approaches that integrate trees and shrubs into farming systems, thereby improving soil health and resilience, were also piloted.			

	These holistic land and livestock management safeguarded biodiversity and rangeland resources, preventing ecosystem degradation while promoting fodder production through drought-tolerant crops such as velvet bean and forage sorghum. The collective interventions therefore supported food security and community resilience building under the changing climate (International Center for Tropical Agriculture & World Bank, 2017). The project employed participatory scenario planning, a combination of Indigenous forecasting methods and scientific research, to help farmers anticipate climate variability and make informed agricultural decisions. By linking communities to market opportunities, facilitating private–public partnerships, and ensuring financial inclusion, ECRAS strengthened local capacities, enabling farmers to adapt, thrive, and contribute to long-term sustainability.
Climate risks addressed	• Droughts and mid-season dry spells • Crop pests and diseases • Livestock diseases and mortality • Flooding in low-lying areas • Excessive rainfall effects such as waterlogging and soil nutrient leaching, which negatively impact crop production • Tropical Cyclone Dineo impacts, which resulted in loss of lives and livestock, and damaged infrastructure (houses, schools, clinics, bridges, and roads) • Market instability for smallholder farmers through low prices for cattle due to climate-related economic pressures
Biodiversity risks addressed	• Grazing land depletion: thereby preventing biodiversity loss • Soil degradation: prevented by promoting sustainable agricultural practices • Loss of traditional land-use knowledge: by restoring Indigenous practices
Reference	https://careclimatechange.org/wp-content/uploads/2019/03/Ecras-Project-Brief-Final.pdf https://ecras.carezimbabwe.org/ https://ecras.carezimbabwe.org/wp-content/uploads/2021/08/ZRBF-ECRAS-BI-ANNUAL-NEWSLETTER-02072021-1-1.pdf https://climateknowledgeportal.worldbank.org/sites/default/files/2019-06/CSA%20_Profile_Zimbabwe_12012018_1330.pdf

8	Climate Adaptation Water and Energy Infrastructure Programme (CAWEP)			
Implementation entity	UNDP and the Ministry of Environment, Climate, Tourism and Hospitality Industry			
Project status	Ongoing (2022–2027)			
Location	**Districts:** Chipinge, Insiza, Chivi, Binga			
Intended beneficiaries	The project benefits rural households in remote areas, with a focus on elderly populations, by providing sustainable energy solutions and access to water.			
Societal challenges addressed by NbS		Climate mitigation		Climate adaptation
		Human health		Food security
		Economic & social development		Biodiversity degradation & loss
		Disaster risk reduction		Water security
Ecosystem(s) targeted	Semi-arid rural areas			
Ecosystem services provided	Provisioning services of fuelwood, water through renewable energy sources such as solar water pumping systems, and biogas			
Description of NbS	The project integrates NbS into its adaptation strategy, aiming to support the development of climate-resilient, multi-use water and renewable energy infrastructure. It employs NbS interventions, particularly climate-smart agriculture, applying various techniques to maintain and improve soil health and gully reclamation for market linkage roads and in the irrigation scheme, ensuring that ecosystems play a critical role in building resilience. In so doing, the project strengthens adaptation efforts while safeguarding biodiversity. Additionally, solar-powered water systems ensure access to clean water while reducing reliance on fossil fuels. Biogas digesters provide a renewable energy source, thereby minimizing environmental pollution. Irrigation schemes support food security by improving water efficiency and soil health. Early warning systems strengthen climate adaptation, equipping communities to mitigate extreme weather risks. The combination of these interventions promotes biodiversity and human benefits. The project also showcases how NbS, technology, and infrastructure focused interventions can complement each other to achieve the desired outcomes for building resilience to climate change.			

Climate risks addressed	• Droughts • Extreme temperatures • Flooding • Energy insecurity • Food insecurity
Biodiversity risks addressed	• Deforestation: by providing a renewable energy source, reducing pressure on the forest • Water ecosystem stress: by providing reliable water access to reduce the impact of drought • Land degradation and soil erosion: by maintaining soil stability • Energy-related environmental impacts: to minimize pollution • Disruptions to local biodiversity: mitigated by supporting sustainable land use
Reference	https://www.undp.org/zimbabwe/projects/climate-adaptation-water-and-energy-infrastructure-programme-cawep https://open.undp.org/projects/00143014

9 Enhancing Resilience of Communities and Ecosystems in the Face of a Changing Climate in Arid and Semi-Arid Areas of Zimbabwe

Implementation entity	Environmental Management Agency of Zimbabwe, with support from the Adaptation Fund
Project status	Ongoing (2025–2029)
Location	**Districts:** Chiredzi, Mwenezi, Beitbridge, Binga, Buhera
Intended beneficiaries	The project targets vulnerable rural communities, with emphasis on women, youth, and marginalized groups
Societal challenges addressed by NbS	Climate mitigation; Climate adaptation Human health; Food security Economic & social development; Biodiversity degradation & loss Disaster risk reduction; Water security
Ecosystem(s) targeted	Dryland landscapes, watersheds, agroecosystems
Ecosystem services provided	Water regulation through watershed restoration; soil stabilization via conservation agriculture and reforestation; carbon sequestration through tree planting and land management; livelihood support via climate-resilient farming and natural resource use
Description of NbS	The project advances community-driven NbS to strengthen ecosystems and reduce vulnerability to climate risks. The NbS interventions are centred on watershed management, where gully reclamation and the planting of indigenous trees restore degraded landscapes and stabilize soils. Alongside this, climate-smart agriculture is promoted through drought-resistant seed varieties, conservation practices such as minimal tillage and intercropping, and integrated pest management. These measures protect, restore, and promote the sustainable utilization of ecosystems, ensuring sustained human well-being benefits. The project also supports livelihood diversification by introducing sustainable value chains and market linkages, while capacity-building programs train communities in assisted natural regeneration, governance of natural resources, and conflict resolution. Complementary interventions emphasize resource-efficient livestock management, sustainable water harvesting, and the adoption of energy-saving technologies and alternative energy sources to reduce pressure on forests and improve resilience.

	Gender equity is mainstreamed throughout, ensuring women's empowerment via training, governance participation, and improved market access. By embedding gender-responsive approaches, the project ensures equitable participation and benefits across all social groups. Together, these interventions create a holistic NbS framework that directly addresses climate risks such as droughts, soil erosion, flooding, and heat stress, while mitigating biodiversity risks including the loss of indigenous species, declining pollinators, habitat degradation, and invasive species. By combining ecological restoration with social inclusion and economic development, the project ensures that vulnerable communities in Zimbabwe's arid and semi-arid districts are better equipped to thrive in the face of climate change, while safeguarding the ecosystems that sustain them.
Climate risks addressed	• Droughts • Soil erosion • Flooding • Unpredictable rainfall • Heat stress
Biodiversity risks addressed	• Loss of indigenous trees • Declining pollinators • Habitat encroachment • Invasive species
Reference	https://www.adaptation-fund.org/project/enhancing-resilience-of-communities-and-ecosystems-in-the-face-of-a-changing-climate-in-arid-and-semi-arid-areas-of-zimbabwe-3/ https://fifspubprd.azureedge.net/afdocuments/project/14502/14502_Zimbabwe%20EMA%20concept%20-April%20clean.pdf https://app.climatepolicyradar.org/document/enhancing-resilience-of-communities-and-ecosystems-in-the-face-of-a-changing-climate-in-arid-and-semi-arid-areas-of-zimbabwe_89af

10 Integrated Wetlands Biodiversity Conservation Project, Zimbabwe

Implementation entity	Safe Environment and Wildlife Africa with financial support from the UNDP–GEF Small Grants Program, in collaboration with the following Zimbabwe government agencies: • Environmental Management Agency: wetland restoration and monitoring • Forestry Commission: tree nursery establishment and reforestation • Agriculture & Rural Development Advisory Services: training on agroforestry, climate-smart agriculture, and gully reclamation • Rural Infrastructure Development Agency: engineering works such as gully reshaping and pond creation • Ministry of Youth Empowerment Development & Vocational Training: youth engagement • Ministry of Women Affairs, Community, Small and Medium Enterprises Development: women's inclusion and entrepreneurship
Project status	Completed (2022–2025)
Location	**Binga district:** Masibinta Wetland
Intended beneficiaries	The project targets 387 households and 50 youths (30 female, 20 male) from vulnerable groups around protected areas.
Societal challenges addressed by NbS	Climate mitigation; Climate adaptation Human health; Food security Economic & social development; Biodiversity degradation & loss Disaster risk reduction; Water security
Ecosystem(s) targeted	Wetlands (Masibinta Wetland), catchment areas (bare land, gullies), agricultural landscapes
Ecosystem services provided	Water regulation and recharge; soil fertility improvement and erosion control; climate regulation (carbon sequestration, temperature moderation); biodiversity conservation and habitat restoration; provisioning of food, clean water, fuel, and income; cultural services (strengthened Indigenous knowledge systems such as *Maganko* zero tillage)

Description of NbS	The project adopted a holistic NbS approach to safeguard wetlands and strengthen community resilience. It implemented a range of NbS for adaptation interventions, including protecting the wetland, practising conservation agriculture in its catchment, reforesting bare land, and controlling and reshaping gullies to form small ponds. These ponds not only enhance the recharge of the wetland but also provide water to the community, act as barriers against soil erosion, and serve as epicentres for natural vegetative cover regeneration and biodiversity restoration. The project further addressed invasive species by removing *Ipomoea carnea* and composting its leaves and branches to improve soil health. Together, these interventions restore ecosystem functions while empowering women and youth through livelihood opportunities, ensuring that biodiversity conservation is directly connected to improved food security, reliable water availability, and inclusive development.
Climate risks addressed	• Droughts • Extreme temperatures • Flooding
Biodiversity risks addressed	• Loss of wetland ecosystems and biodiversity • Decline in ecosystem productivity • Spread of invasive species *(Ipomoea carnea)* • Unsustainable land-use practices The response interventions included wetland protection, reforestation, agroecological farming, sustainable value chains, and community-led biodiversity governance.
Reference	https://wocat.net/en/database/approaches/7367/

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CLIMATE ADAPTATION AND PROTECTED AREAS (CAPA) INITIATIVE

The Climate Adaptation and Protected Areas (CAPA) Initiative seeks to promote nature-based solutions (NbS) to strengthen climate resilience and protect biodiversity in and around protected areas and critical ecosystems. The CAPA Initiative, funded by Global Affairs Canada, will work with local communities, traditionally underrepresented groups, women's groups, and national and local authorities in Belize, Fiji, the Greater Virunga Landscape, and the Kavango–Zambezi Landscape to implement site-specific activities that respond to the risks, vulnerabilities, needs, and priorities of local communities and ecosystems, as identified through comprehensive assessments of the climate, gender, biodiversity, and conflict contexts. The CAPA Initiative is led by the International Institute for Sustainable Development (IISD), the Wildlife Conservation Society (WCS), and the World Wide Fund for Nature (WWF).

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