



**Scaling Climate
Action and
Environmental
Stewardship in a
Fragile World**

**World Vision United States
March 2023**

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Acknowledgments

This publication reflects the combined insights of World Vision U.S. technical teams including Food Security and Livelihoods, WASH, Health, Child Protection and Education, as well as cross-cutting teams such as Humanitarian Emergency Assistance and Gender Equality and Social Inclusion. The Climate Action white paper is part of a Food Security and Livelihoods series that includes publications on the World Vision Food Systems and GESI Framework and Multi-sectoral Resilience Framework. The authors would especially like to thank key contributors Adam Questad, Allen Hollenbach, Eunice Ha, Hannah Chargin, Dr. Jackie Ogega, Jordan Smoke, Kathryn Reider, Lawren Sinnema, Leo Hosh, Matthew Stephens, Susan Otchere, and Whitney Groves. The authors also wish to thank reviewers whose feedback helped to strengthen this product, including Eric Zimmerman, Chris Shore, Margaret Schuler, and Mark Smith.

World Vision is a Christian humanitarian organization dedicated to working with children, families, and their communities worldwide to reach their full potential by tackling the causes of poverty and injustice. Motivated by our faith in Jesus Christ, we serve alongside the poor and oppressed as a demonstration of God's unconditional love for all people. World Vision serves all people, regardless of religion, race, ethnicity, or gender. © 2023 World Vision, Inc.

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1. OVERVIEW

Global evidence demonstrates that current weather extremes pose an unprecedented threat to people and nature. Climate change has precipitated an increased scale and scope of environmental risks—not only through immediate impacts wrought by the destructive power of floods, landslides, heatwaves, cold spells, and droughts, but also through disruptions to the ecosystems that are essential for human and animal health, wellbeing, and livelihoods, such as pollination for crop plants and control of disease agents (more detail below).¹ Climate change has become a crisis, leading to a reversal of sustainable development gains made in the past decades to reduce poverty and food insecurity. The World Bank estimates that if unmitigated, the current pace of climate change will force over 132 million more people into poverty by 2030.²

Since our founding over seventy years ago, World Vision has witnessed increasing climate-related shocks and environmental destruction in the communities we serve. As a Christian, child-focused, humanitarian and development organization, we work closely with the most vulnerable and poor populations in nearly 100 countries to improve the wellbeing of children, families, and communities affected by weather extremes and disasters.

World Vision's core values call us to be stewards of creation who demonstrate care for the earth and act in ways that will restore and protect our environment, ensuring our development activities are ecologically sound for the benefit of children now and in the days ahead.³ This premise—that improving environmental outcomes begins and ends with human action—aligns with the United Nations Framework Convention on Climate Change and the United Nations Intergovernmental Panel on Climate Change research findings that demonstrate the human origins of today's climate change⁴ crisis.^{5,6,7}

Responding to the climate change crisis matters to World Vision because:

- **Addressing climate change contributes to poverty reduction:** The climate crisis disproportionately affects the world's poor. Moreover, because climate shocks and environmental degradation are key drivers of poverty, malnutrition, inequality, and child vulnerability, the current climate crisis is equally a crisis of water, poverty, social justice, and health.
- **Addressing climate change is fundamentally linked to seeking justice for the world's most vulnerable communities:** Sustainable climate response requires inclusive development, including participation and decision-making by diverse, marginalized stakeholders
- **Climate adaptation and mitigation are essential components of resilience:** Climate-related shocks and stressors represent a key category of vulnerability risks faced by those in poverty, particularly among smallholder farming communities within low- and middle-income countries. Resilience allows individuals, families, and communities to weather, adapt to, and recover beyond sudden shocks and ongoing stressors such as those precipitated by climate change.
- **Effective climate action requires attention to social and structural systems:** World Vision recognizes climate as a key driver of the food and market, health, water, and social protection systems that form the basis of our humanitarian-development practice. We address climate resilience within and across these systems with particular attention to promoting child well-being, fostering social cohesion, and pursuing anticipatory action as we address climate risks and foster climate resilience capacity

As a global partner within the humanitarian and development industry, World Vision's forward focus is on scaling new and proven actions to arrest, adapt to and reduce the impact of climate-related shocks.

Purpose

Recognizing both the current global momentum for climate action and World Vision's extensive experience in partnering with local, national, and donor agencies to support vulnerable communities, this paper aims to:

- Highlight World Vision's strategic direction in response to the climate crisis and related environmental sustainability issues
- Provide insights for further action based on the established and emerging global data on the impacts and vulnerabilities associated with climate change that are directly relevant to World Vision programs

The climate crisis has unleashed an unprecedented challenge to the wellbeing of vulnerable children, families, and communities (the primary stakeholders of our mission), degrading the ecosystems upon which many farming, herding, fishing, and indigenous communities depend. The global development community has responded to this urgency, committing program and research resources and catalyzing policy change to tackle the climate crisis

2. WORLD VISION'S COMMITMENT TO CLIMATE ACTION

Technical priorities

Globally, World Vision has implemented more than 1,100 environment and climate action programs across 47 low- and middle-income countries in seven regions. As we continue to play our part in addressing the effects and drivers of climate change, we have prioritized efforts to:

- Reduce community-based disaster risks in fragile contexts
- Promote climate-smart approaches in agri-food systems
- Improve community-led watershed management, including water, sanitation, hygiene, and water access
- Strengthen ecosystems services
- Mainstream climate action across sectors (nutrition and health and child protection)

Our climate work reflects a deep commitment to working across the humanitarian development peace nexus, with an emphasis on meeting the needs of the world's most fragile communities.

We actively integrate gender equality and social inclusion, along with faith and development, within our programming, public advocacy, and organizational operations.

Strategic alignment and key principles

Globally, World Vision's climate work is supported by a comprehensive policy framework that builds upon decades of response to the growing climate crisis and provides the infrastructural support and financial leverage to do more going forward in partnership with our stakeholders. Our stakeholders include national and local governments, UN agencies, the private sector, civil society, and community-based organizations aimed at building resilience and

sustainable livelihoods, protecting the well-being of children, providing life-saving humanitarian assistance, as well as promoting health, education, and water, sanitation, and hygiene. As a global entity, World Vision has actively supported and participated in the Sendai Framework for Disaster Risk Reduction 2015-2030. We are signatory to the UN Decade of Ecosystem Restoration (2021- 2030) and the Climate and Environment Charter for Humanitarian Organizations (2022) and a partner in the Global Partnership on Forest and Landscape Restoration (GPFLR).

World Vision's climate response also supports the Sustainable Development Goals (SDG-15 and Land Degradation Neutrality), the UNCCD decision to combat land degradation, desertification and drought, and the UN Decade on Ecosystem Restoration (2021-2030).

World Vision's climate adaptation and mitigation efforts are guided by a number of key decisions or principles about how we do our work, including:

- **Supporting locally-driven solutions:** World Vision affirms the primacy of community-led development, which calls World Vision to operate on the ground as one of many stakeholders. We catalyze change and facilitate sustainable development outcomes in support of goals owned by local decision makers.
- **Fostering gender equality and social inclusion:** The [World Vision GESI theory of change](#) recognizes the importance of engaging stakeholders across each level of social ecology (individual, household, community, and society) and through each domain of social change (access, systems, participation, decision-making, and well-being) to achieve greater agency, transformation, and empowerment for stakeholders.

How we work

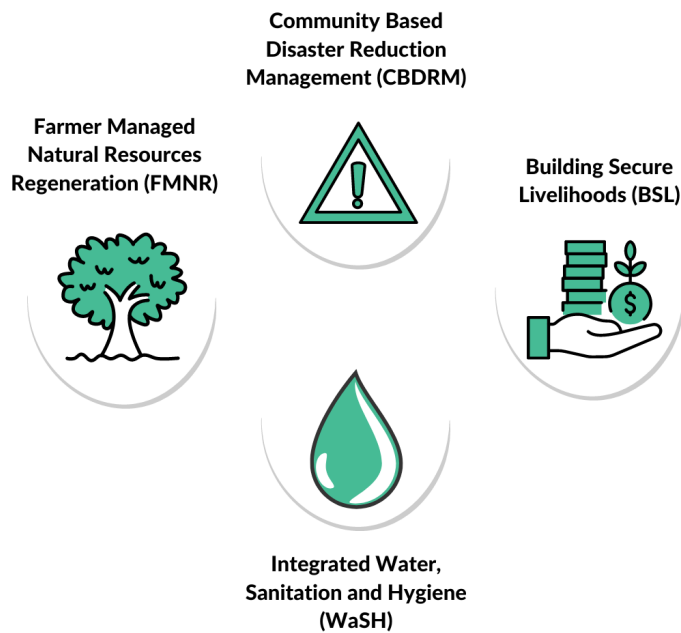
Through project models: World Vision has developed and institutionalized a suite of climate-related organizational project models based upon years of field experience and external research evidence. We leverage and adapt these models across our public and private grants and through our sponsorship programming. (See section 4 for details on current and upcoming programmatic priorities).

Through research: We have defined a climate-related research agenda focused on natural resources management (NRM) and WASH, both of which are supported by a range of academic and research institutional partners. For example, research questions within our food security and livelihoods portfolio have focused on addressing women's time burden within NRM, pathways for promoting upscaling of land restoration practices, and use of citizen advocacy to drive local government accountability for environmentally sustainable practices and ecosystems services. (See Section 4.5 for highlights from our WASH and climate research agenda).

Through our operations and facilities: In accordance with World Vision's Environmental Stewardship policy, we are adjusting our organizational management practices to transparently and accountably reduce our carbon footprint and negative impact on the environment.

Through advocacy, communication, and marketing: Institutional change, response, and funding from governments are critical components to fully address the impacts of climate and weather-related shocks and stressors. In order to cultivate leadership across the U.S. Government, we continue to prioritize [awareness and education](#) strategies to ensure decision makers understand the importance of humanitarian and development responses to the impacts of climate change. This includes efforts to foster bipartisan support and action in the U.S. Congress that aids vulnerable populations in adapting and building resilience to changing environments. Similarly, we continue to [prioritize media engagements](#) that raise awareness and speak clearly to the worsening climate crisis and how our efforts to respond must include programming that responds to and builds resilience to climate-induced stressors.

Our proven and internationally recognized project models and technical resources include:



World Vision implements these solutions in partnership with local communities, faith leaders, governments and private sector partners.

3. GLOBAL FINDINGS ON CLIMATE IMPACT AND VULNERABILITY RISKS RELEVANT TO WORLD VISION PROGRAMS

The policy context

The Paris Climate Agreement (CoP21, 2015) is one of the most important, research-based, global agreements aimed at reducing climate impacts. A binding international treaty to reduce green-house gas (GHG) emissions and limit global warming rates, the Paris Climate Agreement also provides a framework for action to mitigate and adapt to climate change. It also defines financial support commitments to developing countries, aimed at moving towards net-zero emission alongside achievement of the Sustainable Development Goals.⁸

Likewise, the working group reports of the most recent UN Intergovernmental Panel on Climate Change Sixth Assessment (IPPC 6, 2021-2) underscored that “human-induced climate change causes widespread adverse impact and loss to ecosystems, people, settlements, and infrastructure, including hot extremes on land and in oceans, drought, flooding, landslides, and fire.”⁹ The Glasgow Climate Conference (CoP-26, November 2021) made an important shift in giving equal emphasis to

climate change adaptation and to reducing emissions,¹⁰ and major industrialized countries pledged to provide US\$ 100 billion annually to low and middle income countries.¹¹ Record pledges were made to adaptation funds to support developing countries in this effort.¹² COP 26 also launched the Declaration to Halt Deforestation and Land Degradation by 2030 (signed by 120 countries) with a contribution of US\$ 20 billion, of which at least US\$2 billion is aimed to support indigenous peoples.¹³ During COP26, the private sector pledged to facilitate the flow of more resources to developing countries in support of the Paris Agreement pledges.¹⁴

In addition, the USAID Climate Strategy 2022-2030 includes targets that align with a number of World Vision programs outlined in Section 4. Similarly, the U.S. President’s Emergency Plan for Adaptation and Resilience (PREPARE) targets specifically include supporting vulnerable countries to develop and implement their adaptation priorities, as indicated in each Nationally Determined Contribution (NDC) and National Adaptation Plan (NAP).¹⁵



Drought displacement in Dollow, Somalia

Evidence of climate change impacts in the developing world

In this section we focus on some of the key climate impacts drawn from the global evidence, with attention to the vulnerability risks within the sectors that are most relevant to World Vision's development and humanitarian assistance programs.

Climate-related disasters have increased by over 80% in the last four decades. Nearly 40 million new internally displaced people were reported in 2020 (the highest in decades), among which 30.7 million were attributed to climate disaster effects. Women and girls comprise a considerable fraction of those displaced—a category broadly referred to as “climate refugees.”¹⁶ The IPCC Sixth Assessment (2022) further underscores that climate and weather extremes (including highly impactful floods, droughts, and storms) have increased humanitarian crises and displacement in all regions of the world.¹⁷ Between 2008 and 2018, the most impactful disasters in terms damages to agri-food system in least developed countries (LDC) and low middle income countries (LMICs) were drought, storm, and floods with loss of US\$ 37 billion, US\$ 21 billion, and US\$ 19 billion, respectively.¹⁸

Recognizing the gravity and frequency of climate-related disaster in all regions of the world, governments, after decades of negotiations, reached a historic agreement to establish a funding arrangement that helps vulnerable countries address the loss and damage associated with the adverse effects of climate impact. In this context, loss and damage arises when nature and human systems are pushed beyond their ability to adapt, resulting in economic and non-economic loss, including displacement, cultural heritage, lives, and livelihood.¹⁹ COP 27 saw significant progress in strengthening developed countries' contribution to climate adaptation, where key western governments committed over US\$ 230 million to help vulnerable communities adapt to climate change through concrete adaption solutions.²⁰

Climate crises will have a profound impact on the lives of today's children and on future generations, as they will be increasingly exposed to severe climate-related risks including food insecurity, water-borne diseases, and displacement.²¹ World Vision uses a systems approach to create a protective environment that cares and supports all children, especially the most vulnerable.

ON CLIMATE FINANCING

Although commitments to climate finance are increasing globally, funding to support improvements to adapt climate-affected small-scale agriculture is largely unavailable—a crucial need within the vast majority of low- and middle-income countries. To date, climate financing has been largely designated for large mitigation projects by governments, such as major sequestration efforts. Thus, climate-related funding is largely inaccessible to farmers, farm cooperatives, and civil society organizations assisting farmers. One of the key barriers to making climate financing more accessible by smallholder LMIC farmers is the challenge of accurately quantifying costs and financial requirements for climate adaptation and mitigation interventions in agriculture, due to a lack of comprehensive data.

In recent years, economists from the Overseas Development Institute (ODI) have presented analytical studies of climate funds²², international climate finance architecture²³, and public investments by government-led climate funds²⁴. Studies to date demonstrate widely varying scenarios from place to place even within national boundaries, just as floods and droughts may cause crop calamities in different parts of a country. Illustrating potential responses, the National Government of Kenya was a frontrunner among LMIC in moving national funds into county-specific climate adaptation funds in 2013, but with varied allocation to agricultural adaptation or mitigation by county.

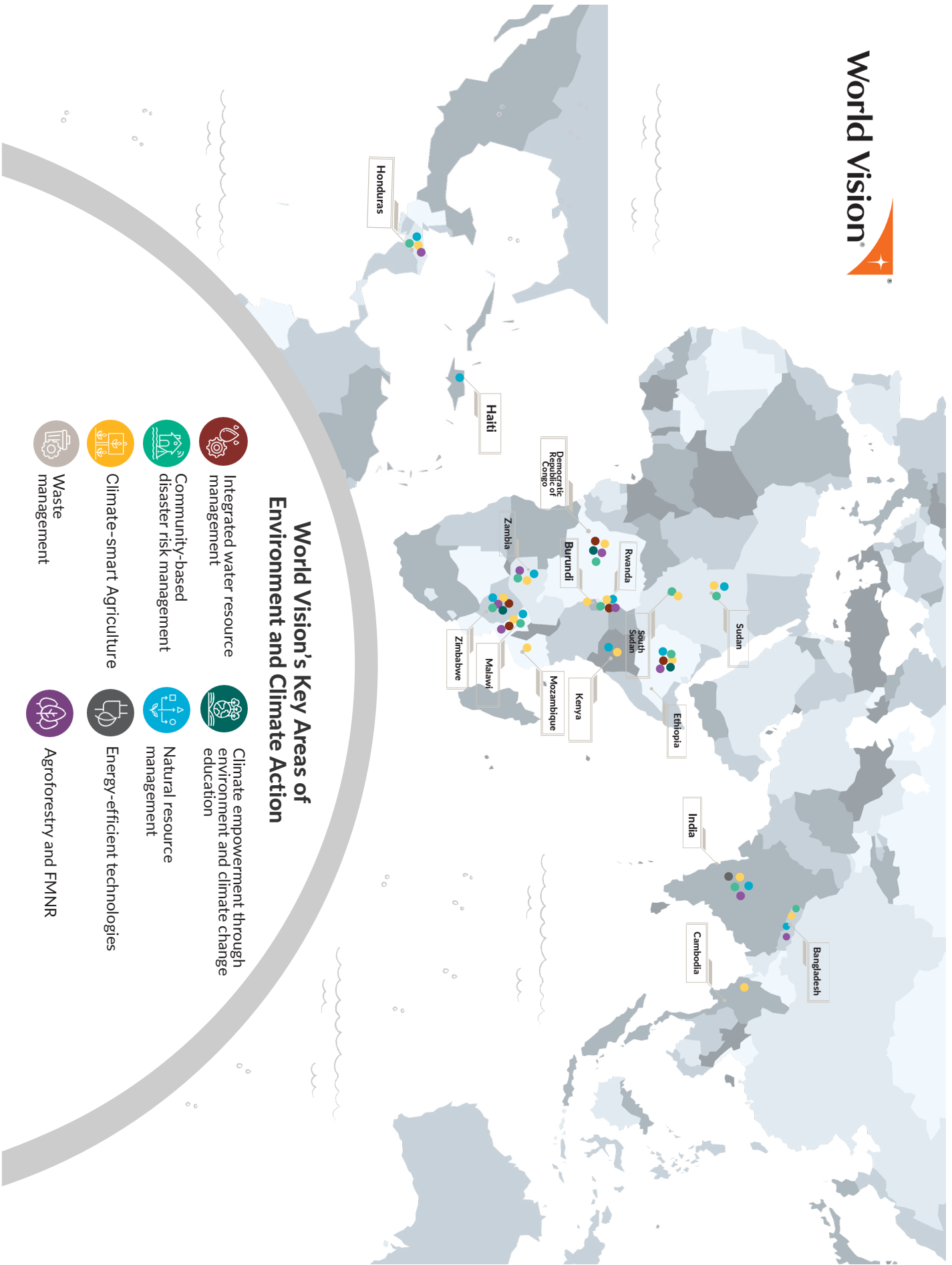
Despite these steps forward, more insights are needed globally to further create and scale climate finance solutions. Enabled by a recent grant from the AgMission of the Foundation for Food and Agriculture along with the Syngenta Foundation for Sustainable Agriculture, World Vision is partnering with ODI and the Institute of Development Studies (IDS) of the University of Sussex in 2022-2023 to compile an up-to-date overview of global climate finance action for agriculture. The focus is on countries with significant populations and economies that are deeply affected by the impacts of recent climate catastrophes destroying livelihoods dependent on crops and livestock. The resulting publications will provide insights for government decision makers, as well as donors, on setting policy and program priorities that bolster adoption of climate smart agriculture, including availability of climate financing solutions.

The evidence for food and market systems: Climate impacts and climate-related extremes are stressing agriculture, forestry, fisheries and aquaculture, increasingly hindering efforts to meet human food needs. Droughts; floods that submerge and wash away fertile topsoil and crops; untimely rains during traditional harvest periods, causing crops to rot; and marine heat waves that kill fish, shellfish and aquatic plants all reduce food availability and increase food prices, threatening food security, nutrition and livelihoods of millions of people.²⁵ FAO studies have showed that drought disproportionately affects crops and livestock; 82% of the damage caused by drought was absorbed in the agriculture sector in low and lower middle-income countries between 2008 and 2018.²⁶ Since then, acute food insecurity and malnutrition related to floods and droughts have increased markedly in Africa and in Central and South America;²⁷ in particular, drought-related yield losses have occurred in about 75% of global harvested areas.²⁸ Farmers that have paid for inputs such as seeds can be bankrupted when crops fail due to drought or floods or when they become less salable due to rot. World Vision has long-standing and extensive engagements in assisting populations affected by drought, floods, and storms through advocacy of Climate-Smart Agriculture (CSA) practices to reduce the damage during climate-related shocks, safety net programs to help build the resilience of smallholder farmers and vulnerable communities, and restorative practices for water management (see section 4.2).


The evidence for food and nutrition security: Climate change affects all dimensions of food security, triggering an increase in malnutrition through direct impacts on food production, food prices, and household incomes; indirect effects such as truncated growing seasons; disruptions such as rainfall events during harvest seasons causing reduction of nutrient content in foods; reduction in availability of foods to dispersed markets due to floods; and other disruptions to infrastructure.²⁹ Any reduction of access to safe and nutritious food will increase the number of people at risk of hunger, malnutrition, and diet-related mortality. Vulnerable groups (such as pregnant women, children, and indigenous people), low-income households, and small-scale farmers in low-income countries have higher risk of malnutrition. World Vision's multi-sectoral approach to nutrition, targeting nutrition-sensitive agriculture and market access simultaneously with the health of pregnant and lactating women and children, is aimed to address this challenge.


Evidence for water resources and systems: Water-related climate impacts are manifested in the frequency and magnitude of floods and droughts, increased unpredictability of precipitation affecting planting time, decline in groundwater storage and reduced recharge capacity, and water quality deterioration due to extreme events. UNICEF estimates that about two thirds of the world's 7.8 billion people "experience severe water scarcity for at least one month in a year."³⁰ Water, sanitation, and hygiene (WASH) services are negatively impacted by climate-related extremes through a decreased availability of water and greatly increased outbreak of water-borne diseases in the aftermath of floods.³¹ Many of the documented adaptation responses address water-related hazards (i.e., droughts, floods, and rainfall variability) along with efforts to reduce these climate risks on food systems and essential public services like drinking water.³² World Vision's work in watershed management, WASH governance and finance, water infrastructure, and related areas assists communities to mitigate the impacts of water-related climate shocks.


Evidence for ecosystems: According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (2019), "the health of ecosystems upon which humans and other species depend is deteriorating rapidly."³³ When land is degraded its drainage and water-holding capacity frequently becomes less productive, restricting what plants and animals can thrive, losing biodiversity, and exacerbating extreme weather events such as heatwaves, droughts, and dust storms. Land degradation and loss of biodiversity considerably undermine impacts ecosystem functions such as pollination and seed dispersal, control of insect pests that might normally be eaten by insectivorous birds and other animals, and similarly loss of natural controls of human and agricultural diseases and disease vectors such as ticks, whiteflies, and mosquitoes.³⁴ The IPCC Sixth Assessment (2022) confirmed that ecosystem health is rapidly declining due to climate impact, negatively affecting biodiversity and ecosystem health factors closely connected to provision of basic needs, livelihoods, health, climate regulation, pollination of crops, and management of pests and diseases.³⁵ Yet, clearing of forest lands, destruction of wetlands for agriculture, forestry, and other unsustainable land use changes continue to drive nearly 25% of global greenhouse gas emissions.³⁶





World Vision's Key Areas of Environment and Climate Action


- 

Integrated water resource management
- 


Community-based disaster risk management
- 

Climate-smart Agriculture
- 

Waste management
- 

Climate empowerment through environment and climate change education
- 

Natural resource management
- 

Energy-efficient technologies
- 

Agroforestry and FMNR

Large-scale commercial agriculture accounts for 40% of tropical deforestation, which results in biodiversity loss, and smallholder and subsistence agriculture accounts for an additional 33%.³⁷

Climate change has doubled the area burned each year by wildfire (over natural levels), with increased tree mortality and biome shifts in most ecosystems—including tropical ecosystems but also temperate forests and grasslands.³⁸ The latest UN Global Land Outlook report underlined that restoring degraded lands and ecosystems has proven to be a cost-effective solution to address food and water security, improve livelihoods, slow global warming, reduce the severity and frequency of disasters and improve biodiversity.³⁹ These efforts may provide about one third of the cost-effective climate mitigation needed to stabilize global warming by 2030.⁴⁰

4. WORLD VISION'S CLIMATE ACTION AND PRIORITIES FOR SCALING IMPACT

Climate change will continue to limit humanity's ability to use current technologies and practices in adaptation and mitigation due to the biophysical, financial, and social limits that grow tighter over time, with little progress in curtailing the pace of our changing climate.⁴¹ World Vision's global reach, sustained through long term commitments in the most fragile places and powered by locally staffed national teams, equips us to support development partners in accelerating the implementation of existing climate adaptation measures. We recognize the very real hard limits that our community partners face in their ability to repeatedly press against unmitigated, recurring climate shocks; we also understand the likelihood that adaptation costs will reach prohibitively expensive levels over time. As such, World Vision's multi-sectoral climate action work focuses on implementing new adaptation and mitigation measures that emphasize community-led land and ecosystem restoration, climate resilience through adaptation, disaster risk management, and advocacy for and by youth and children.

FOCUS AREA: Reduce community-based disaster risks in fragile contexts

World Vision has responded to an extensive range of geophysical (i.e., earthquake, landslide, and mass movement) and weather-related disasters (i.e., drought, storm, and floods). The latter have risen sharply since 1970. However, the number of major global geophysical disasters has remained stable, with about 25 events annually in the 1970s and 1980's and about 30 to 35 annually in the 2010s. However, drought and storm have quadrupled from 40

events per year in the 1970s to 150 annually in the 2010s and floods have increased from zero events annually in the 1970s to 180 annually in the 2000s. Damages due to crop and livestock disease, wildfire, and the COVID-19 pandemic were not reported systematically, but have caused significant loss in terms of food and nutrition security and income.⁴²

Our response has entailed both short-term, emergency and humanitarian assistance, as well as medium- to long-term sustainable development efforts aimed at prevention and building resilience. Our work supports enhanced international cooperation and national actions to implement the Sendai Framework for disaster risk reduction (DRR), which guides the multi-hazard management of disasters risks within and across sectors, covering the risks either small scale or large scale, slow or rapid onset, frequent or infrequent, caused by natural or man-made hazards, as well as related environmental, technological, and biological hazards and risks.⁴³

World Vision's DRR work has provided an effective entry point for promoting recovery from climate shocks in the most fragile contexts, both in short-term humanitarian and in longer-term development settings. We prioritize agricultural livelihoods and DRR as complementary investments that foster household and systems resilience. Our work promotes sustainable and proactive climate adaptation practices to the range of recurring risks faced by vulnerable communities. World Vision's work in DRR strengthens the capacity of communities and their institutions to prevent, mitigate and recover from disaster.

World Vision’s globally-implemented, community-based Disaster Reduction project model focuses on each community building its own coping mechanisms and adaptation capacities in locally appropriate ways for disaster mitigation, preparedness, and response.⁴⁴ Our relevant project approaches, implemented alongside DRR, include Citizen Voice in Action (CVA), which builds capacity to advocate for and develop DRR strategies in inclusive and participatory ways, and integrating disaster and climate risk management within national and subnational safety net programs. In alignment with Our Promise 2030 (World Vision’s global strategy), our DRR work also complements efforts to address malnutrition among the most vulnerable households in fragile contexts through the Ultra-Poor Graduation Model (UPGM). For example, through the USAID-funded Nobo Jatra resilience food security activity in Bangladesh, World Vision and our partners promote gardening (with an emphasis on nutritious crops tolerant to inundation and saline soils) and duck-rearing activities for the ultra-poor in Bangladesh.⁴⁵



Beauty holds the disaster plan her family in Bangladesh put together with support from World Vision. The plan includes how the family will save money in the event of a cyclone—an unfortunately common disaster in this part of the country.

As determined by the needs within a given context, World Vision’s DRR interventions also foster community resilience through the creation of productive assets (linked to natural capital) and provision of food and cash assistance (supporting financial and human capital). Examples include cultivating drought-resistant trees in Uganda, facilitating gully prevention through “Keyhole Gardens” in Lesotho, and establishing water ponds in Myanmar to extend water access through the dry season.⁴⁶ World Vision also works closely with community, government, and civil society stakeholders to develop disaster preparedness plans, conduct emergency drills, and strengthen local Early

Warning Systems in local languages for timely preparation and response of communities that are directly affected by shocks.⁴⁷ This type of work is highly cost-effective: For every dollar invested in climate-resilient infrastructure, six dollars can be saved.⁴⁸

“For every dollar invested in climate-resilient infrastructure, 6 dollars can be saved.”

A look ahead

DRR will continue to play an important role in offering sustainable solutions to climate change across the humanitarian development and peace nexus. The historic agreement at COP 27 for a funding arrangement to help vulnerable countries respond to loss and damage due to the adverse effect of climate change further underscores this reality. As a highly-responsive complement to areas of climate action that seek to counteract climate impacts on agri-food and market systems (such as the promotion of climate smart agricultural practices), DRR is also an essential building block toward fostering climate resilience in communities with recurring climate vulnerability risks.

As a key contributor to the international development community, World Vision recognizes our role in supporting an implementable loss and damage agenda; looking ahead we are expanding and innovating within our DRR portfolio by:

- Enhancing early warning systems through digital technologies and other locally appropriate communications tools to improve accuracy and timeliness as well as uptake by at-risk communities
- Using innovations and improvements in capacity-building activities to enhance local DRR policy, planning, and governance at national and community level, including that of communities, governments, and civil society partners
- Piloting and scaling up anticipatory action (AA), to link early warnings to actions designed to protect families and their assets ahead of a shock before it turns into a disaster⁴⁹
- Expanding the use of long-term resilience approaches within the post-disaster early recovery processes supporting disaster-affected communities

FOCUS AREA: Promote climate-smart approaches in agri-food systems

Agricultural productivity and the viability of specific crops, livestock, forest trees and fisheries are greatly vulnerable to climate change.⁵⁰ As such, World Vision is committed to increasing the resilience of small-scale farmers through investing in climate adaptation actions. Through donor-funded support, World Vision is conducting research and trials in Bangladesh, Guatemala, Honduras, India, Kenya, Malawi, Rwanda, Senegal, Uganda, and several other countries in the implementation, sustainable adoption, and perceived costs and benefits⁵¹ of Climate-Smart Agriculture (CSA).⁵² CSA is defined as “agriculture that sustainably increases productivity, enhances resilience (adaptation), reduces/removes GHGs (mitigation) where possible, and enhances achievement of national food security and development goals.”⁵³

Likewise, World Vision’s Building Secure Livelihoods (BSL) project model is aimed at enabling small-scale farmers to invest in their children and move themselves up the economic ladder, despite the challenges of unpredictable rainfall affecting crops and livestock. BSL targets both adaptation and mitigation outcomes: both soil management and reforestation contribute to long-term carbon sequestration in the wood (and retention of soil organic carbon), which allows for better uptake of nutrients from the soil.

CSA adaptation practices implemented within World Vision’s development programs, as appropriate for local conditions and stakeholders⁵⁴, include provision of weather prediction services to time planting, fertilizer application, and harvest; genetic resources bred to produce despite drought, saline soils, waterlogging, and extreme temperature events; diversification of crops as both a hedge on climate risk and increasing nutrition and market reach; integrated pest management; last mile cold chains for production and marketing of livestock-derived foods and some crops; enhanced use of water conservation techniques and appropriate irrigation; and tools to improve postharvest handling in view of unpredictable rainfall, such as means to sufficiently dry crops to reduce crop loss and hazardous fungal contamination.

Certain CSA practices important in World Vision programming provide not only climate adaptation and increased income and stability for farmers, but also mitigation of GHG emissions. These are most clearly seen within our multi-country, privately-funded Transforming

LOCALLY LED CLIMATE MITIGATION: THE CASE FOR FARMER MANAGED NATURAL REGENERATION

Restoring the carbon sequestration potential inherent in forests and wetlands and strengthening ecosystem services within these contexts are impactful twin actions combining both adaptation and mitigation. This is especially true for efforts that restore soil-carbon-retaining structures; growth of carbon-sequestering roots and stems; and provision of fruits, nest sites, and leaf litter to accompany the regeneration of perennials in a landscape from the rootstocks and underground stems.

These principles are embodied within the [World Vision Farmer-Managed Natural Regeneration \(FMNR\)](#) approach. FMNR empowers local control of adaptation and mitigation processes, along with farmer ownership of the outcomes. The FMNR project model has been implemented in nearly 30 LMICs with considerable impact on water flows, natural suppression of weeds, and addition of nitrogen to the ecosystems. This approach is not only locally owned and embodying both mitigation and adaptation, but remedies one of the perverse effects of other reforestation approaches. Through FMNR, farmers access water and nutrients but also sequester carbon by cultivating trees that have already been growing in each region—better adapted than planted exotics and more likely to quickly capture sites for production useful for food, fiber, fuel, and shade. World Vision has integrated FMNR within all 10 countries participating in the privately-funded [THRIVE \(Transforming Household Resilience in Vulnerable Environments\)](#) project, which operates in both Latin America and sub-Saharan Africa.

As a challenge to sustainable outcomes, it has been widely observed in literature that NGO and private sector afforestation projects are too often quickly destroyed, releasing the carbon as neighboring communities feel economic pressure to poach fuelwood/charcoal. In such contexts, data has also shown the FMNR reforestation approach is more regularly maintained, as the local community fully manages the regenerating forest and partakes, via the community-level agreements mentioned above, in the benefits of the trees they’ve fostered—such as fibre, forage, fruit, nuts, medicines, shade, litter enriching the soil, and fertility and fodder if the trees are legumes.

For more information: <https://fmnrhub.com.au/projects/>



THRIVE model farmers on their coffee farm in Yamaranguila, Honduras

Household Resilience in Vulnerable Environments (THRIVE) program. This resilience-focused economic empowerment program provides soil testing services to smallholder farmers to achieve productivity gains while limiting over-use of fertilizers synthesized via heavy GHG emissions. This, in turn, increases soil fertility, prevents erosion, and enables soil carbon sequestration through measures such as plowing under legume cover crops.

A look ahead

While the potential for CSA to significantly support climate adaptation is widely recognized, CSA practices have limited uptake in the places that stand to benefit most. Building upon our current CSA program and policy research in India, Bangladesh, and Kenya, World Vision recently invested in parallel formative research in Zimbabwe. We will continue to expand this repertoire of work, partnering with and equipping a wide range of LMIC communities and national governments to understand local imperatives for CSA adoption, including:

- Analyzing patterns and trends in climate funding globally to understand how the impacts are or are not reaching impoverished populations
- Developing localized case studies on the links between or disconnects across CSA measures being promoted through development programming and those measures that are arising from the grass roots and are being adopted by farmers locally
- Examining the drivers and barriers to adoption, which may include access to training or specific inputs needed, social constraints, funding etc., which should support recommendations for enhancing the effectiveness of CSA programming

FOCUS AREA: Improve community-led watershed management, with WASH and water access

Through our work in water, sanitation and hygiene, World Vision aims to reach every child everywhere World Vision works with sustainable access to clean water, dignified sanitation, and healthy hygiene practices in our programming areas by 2030.⁵⁵ Our WASH programming priorities include:

- Improving the quality and reach of water supply in the most vulnerable developing country communities
- Promoting healthy sanitation and hygiene behavior
- Enabling WASH governance and finance
- Fostering water security and resilience

Recognizing the negative impact of weather extremes on precipitation and increased runoff, climate change has prompted World Vision to more intentionally integrate natural resources management within our WASH interventions. World Vision continues to mainstream climate action across WASH, as in other sectors, to ensure holistic adaptation and mitigation efforts in the communities we serve. Within WASH, we focus on connecting upstream natural resources management and livelihoods with downstream water systems and uses.

Water Security and Resilience: Climate change, land-use changes, and population growth are among the key factors that threaten a water-secure future and make water availability less predictable. In response to these growing challenges, particularly in the Horn of Africa, World Vision is supporting improved groundwater management in Somalia by deploying a network of groundwater sensors and weather stations that provide real-time monitoring of groundwater levels, water temperature, electrical conductivity, salinity, and total dissolved solids. To date, the program has installed 18 sensor stations, data from which provide insight into water level trends as well as length of recovery periods after pumping sessions. World Vision is working to enhance water security and effective flood and drought management in two counties in Upper Nile State in South Sudan. As part of this project, we will pilot a hydrometeorological database in partnership with the Ministry of Water and Ministry of Infrastructure, construct one 30,000 cubic-meter reservoir for flood protection and water storage, and work with local farmers and management associations to build capacity in Integrated



Genri and other coffee farmers in San Marcos, Honduras help protect and restore the local watershed

Water Resources Management (IWRM). World Vision has fully integrated research within these and other efforts as defined within the recently launched WASH Learning Agenda.⁵⁶

Watershed Management: World Vision is particularly well known for innovative, community-based watershed management systems, set up to mitigate depletion of groundwater resources in areas frequently impacted by droughts, floods, and other climate stressors. In the context of most World Vision operations, watershed management brings locally-appropriate technologies within the boundary of the area's drainage to rehabilitate and restore degraded lands and ecosystems and improve wellbeing and meet needs of the local communities. World Vision's experience in watershed management has shown positive results for local communities. This includes increased crop and forage biomass, reduced erosion,⁵⁷ and increased water availability at watershed level, enabling water-harvesting schemes such as small-scale irrigation. These schemes can support year-round cropping systems of vegetables and horticultural crops, improved fodder production, and livelihood diversification related to local ecosystem services, such as harvest of honey and of fish and other

aquatic products, livestock fattening, and sale of grasses and wood products. Other examples include the mangrove swamp preservation component of cyclone-resilient agriculture in southwest Bangladesh that aims to mitigate pressure on farmers to lock into destructive shrimp farming⁵⁸ and restoration of the Hato River in eastern Honduras, providing a fish habitat and water for irrigation and crops processing.⁵⁹

World Vision programs also recognize important linkages between WASH interventions (notably potable water) and ecosystem health that determine the quantity and quality of water available for both food production and WASH needs in a given watershed. Programs also recognize that effective WASH is closely linked to health via the prevention of water-borne diseases that can hinder absorption of nutrients from food.

A look ahead

Recognizing that climate change has the potential to both reverse decades of progress on water access and impact local hydrological cycles, World Vision has adopted a "climate lens" in our WASH programming, helping households, communities, and governments thrive

World Vision's experience shows that benefit-sharing (focusing on indigenous communities, women, and youth) is an important policy shift that has increased the motivation and sense of community ownership among project participants, resulting in improved livelihood and sustainability. This policy is now incorporated as one of the best practices in most CSA interventions to promote erosion control, agroforestry, improved and rotational livestock grazing, watershed management, and small-scale irrigation.

under today's conditions while also planning for how those conditions may evolve. Planning for resilient WASH services will take many forms, including infrastructure siting in relation to flood zones, supporting communities and local governments to restore and sustainably manage watersheds, increasing water storage capacity for protracted drought, maximizing the use of solar power to reduce dependencies on grid power, as well as helping households anticipate seasonal precipitation fluctuations and the resulting impacts on water for domestic and livelihood needs. In this regard, specific areas of intervention under the 2021-2025 Global WASH Business Plan include the following:

- Advocate for watershed protection and/or rehabilitation, focusing on catchments that directly contribute to water supply systems in areas where World Vision works. These catchments help to replenish groundwater and improve the sustainability of existing water supply systems.
- Integrate climate change scenarios into infrastructure planning, by, for example, elevating facilities to protect infrastructure from flooding.
- Support water resource planning and water allocation decisions, helping communities and governments to collect, analyze, and apply hydro-meteorological data in the delivery of WASH services.
- Develop an evidence base on climate-resilient WASH. Under the auspices of our WASH Learning Agenda, we are striving to learn more about how to best engender

water security in the vulnerable communities where we are working. For example, in South Sudan, World Vision is funding an integrated watershed rehabilitation program to support the sustainability of a water supply system.

World Vision will also leverage its investment in water resource management technology by scaling the mWater platform. By mapping more of the water systems, services, and infrastructure in places we work, we support climate-resilient, anticipatory action among communities and government stakeholders in advance of water-impacting weather extremes.

FOCUS AREA: Strengthen ecosystems services

World Vision is a supporting partner to the UN Decade on Ecosystem Restoration (2021-2030). This effort mobilizes national and local governments, civil society, the private sector, and NGOs for the protection and recovery of ecosystems across all scales and regions to improve environmental outcomes, human wellbeing, and livelihoods.⁶⁰ World Vision prioritizes Nature-based Solutions (NbS) to conserve biodiversity and enhance ecosystem services, climate-smart practices in natural resource management, and climate-resilient and eco-friendly interventions that contribute to livelihoods, climate adaptation, and mitigation. Our eco-friendly approaches are core to the way we view agri-food and market systems. They include promoting agroforestry and the adoption of energy efficient, productive technologies, as well as working with smallholder farmers to improve soil and water management, pasture, fodder, and grassland. We integrate ecosystems restoration within our sustainable livelihoods programs, with particular focus on fostering climate resilience among indigenous, marginalized groups using our GESI approach.

A look ahead

The Sustainable Landscape Forum following COP 26 explored the ways in which international development stakeholders could work with the private sector to deliver on sustainability and climate targets. As a result of these dialogues:

- World Vision adopted a more holistic view of the links between the climate crisis, deforestation by clearing or fire, land use change including agricultural pressure, and biodiversity. To enhance programming in the future, we will invest in measures to gain greater



Joseph picks fruit from fruit trees on the family's land. The family sells the fruit at a roadside stand.

commitments for smallholder engagement and in incentives to halt deforestation and to manage land better for carbon sequestration. These investments and incentives must go beyond deforestation towards forest-positive and regenerative agriculture.

- World Vision is pursuing innovations for sustainably-managed ecosystems. We are actively adopting locally-derived soil enhancement methods, conservation agriculture, improved and rotational grazing, and integrated pest management methods using natural predators for pest and disease vector control, an essential part of Nature-based Solution (NbS) which can have a key role in improving livelihoods and supporting enhanced ecosystem services while reducing GHG emission and mitigating climate impacts.
- We are committed to recognizing⁶¹ and addressing the heavy burden women bear in natural resources tasks as well as agricultural tasks. Women and youth are major contributors to agricultural and natural resource management labor; enhancing their participation in decision-making will be critical in fostering climate resilient approaches to natural resources management and NbS.
- Rural youth power must be considered a primary human resource in the restoration of LMIC ecosystems, along with adapting to and mitigating the effects of climate impact. Examples from our watershed management work in Ethiopia demonstrate that enhancing youth participation could generate considerable local employment opportunities, while simultaneously supporting countries to reach their climate goals, if supported by appropriate national policies and investment.⁶²

FOCUS AREA: Mainstream climate action across sectors (nutrition and health and child protection)

Climate response within nutrition and health

Climate change has direct relevance for the future of food security and human health, altering the nutrient content of crops and increasing the risk of undernutrition, infectious disease, respiratory illness, allergies, cardiovascular diseases, food and waterborne illness, and mental illness. This greatly undermines social determinants for good health such as livelihoods, equality and access to health care, and social support structures.⁶³ World Vision's core health and nutrition models promote bonding, bridging, and linking social capital and the trust, reciprocity, information, and cooperation associated with improved social networks. For example, the small neighborhood groups formed as part of World Vision's Positive Deviance / Hearth (PDH) project model targeting malnourished children, and the Care Groups (CG) and Nurturing Care Group (NCG) models, help improve the ties between similar people, which is part of bonding social capital.⁶⁴ Through the Global Fund and bilateral grants, World Vision uses these models in programs to prevent and protect vulnerable individuals and communities from malaria, TB, HIV, polio, and neglected tropical diseases (NTDs). A new grant with GAVI will allow World Vision to reach zero-dose children and communities in West Africa with routine vaccines to help protect them from disease in the future.

The impact of climate change on the health and nutritional status of the population at present is determined by factors related to their vulnerability. Improving the socioeconomic status of communities and reducing their exposure to threats within a well-functioning, resilient health system is key to mitigating further disastrous health and nutrition conditions. Approaches like family-led identification of wasting, community programs to empower change (such as Channels of Hope), and local-level advocacy through Citizen Voice and Action to address gaps in essential services are all part of World Vision's locally-centered commitment in each country to addressing the most vulnerable through prevention and treatment of the types of diseases that are exacerbated during climate crises.

A look ahead

Both for enhancement of nutrition-sensitive agricultural outputs and as part of our multi-sectoral approach to

resilience, World Vision sees considerable opportunity in increasing food safety and nutritive value, as well as meeting markets increasingly, by:

- Reducing crop loss and, by extension, minimizing loss of income. Examples include the further use of sun-independent drying and moisture management for grains and legumes, even when the climate crisis results in untimely rains; and investing in locally-appropriate chilling methods adopted to retain the nutritive value of fresh foods such as fruits, vegetables, and fish, using renewable energy sources.
- Creating or fostering of income streams from waste products processing. This will necessarily be done as part of agri-food and market systems development efforts, including circular systems in which waste is processed. This, in turn, feeds livestock directly without toxicity. Indirectly, such systems “feed” insects that in turn help to detoxify and increase available protein nutrition for livestock (e.g., swine and poultry) through insect frass/livestock manure sold as fertilizer for land crops, fodder production, or aquatic crops such as algae. Information and decision-support systems may enable new processing streams for nutritious foods to be brought to market from a diversity of crops, e.g., safe use of spoiling fruit and vegetables for juices, pastes, and dried slices; fostering new types of businesses; and logistics to direct wastes to new markets.

Climate response and child protection

World Vision’s programs strive to ensure that the physical, emotional, psychological, and spiritual needs of the most vulnerable children are met within caring and protective families and communities.⁶⁵ Our approach emphasizes the importance of multi-sectoral efforts to integrate and mainstream protection components into the different interventions. This is to ensure that all humanitarian and development assistance contributes to the protection of children and ‘Do No Harm’ in program designs and implementation.

World Vision currently responds to multiple forms of violence exacerbated by climate change and instability including child labor (particularly in agricultural supply chains), child marriage, child trafficking, and violence towards children in migration, including unaccompanied and separated children in conflict/crisis situations.⁶⁶ World Vision works with parents to promote positive parenting, household resilience, and sustainable livelihoods to mitigate the use of negative coping mechanisms

associated with stress/crisis, including violence. Since 2009, World Vision has partnered with the U.S. Department of Labor to reduce child labor in sugarcane, coffee, melons, textiles, fishing, and hospitality sectors in six countries, in part by promoting Occupational Safety and Health standards in supply chains, supporting household agricultural and non-agricultural income diversification, and increasing access to social protection mechanisms.

Furthermore, World Vision’s adolescent programming promotes and creates space for young people to play an active role in community and civic leadership and to raise their voices on issues which concern them, including climate change. Around the world, World Vision-sponsored children’s clubs and parliaments identify, research, and speak out on issues related to child well-being, participate in community service programs to improve their physical and social environments, and advocate to governments and inter-governmental mechanisms from local to global levels. World Vision’s Young Leaders program,⁶⁷ for example, has trained leaders from over 25 countries to represent children’s views and priorities within local, national, and intergovernmental fora, including at the United Nations, European Commission, and the African Union.

A look ahead

Climate justice is inextricably linked to children’s rights, including their right to participate meaningfully in decisions that affect them.⁶⁸ This means breaking down the barriers to participation that children and young people themselves readily identify, increasing their own capacities and the enabling environment to listen to and respect their views. Recent reviews showed that national climate policies are currently failing to address children and their needs. For children to effectively engage, they must be informed



Sheryl tends a cone garden at Kasawo Primary School in Kenya, she has also built five cone gardens at her home and is growing vegetables for her family.

about the latest developments and climate impact, and as countries revise and implement their climate action/adaptation plans, there is an opportunity to engage and consult children and young people in the process.

World Vision is in an ideal position to enhance climate action within its adolescent-focused programs that seek to build skills for life, resilience, and engagement in civic and social processes, including:

- Equipping children and youth to address ecological impact and environmental conservation in life-skills, resilience, and community service-learning opportunities. This is an important contributor to strengthening protective environments for children.
- Scaling-up social protection systems to address the increasing impacts of climate shocks on children and their families, with the aim of bringing universal child benefits. This is a useful approach to improve child well-being.
- Expanding efforts to proactively include children's voices in climate disaster risk reduction planning. This includes further assessing and structuring responses to the potential short and long-term implications of climate emergencies to increasing violence against children.

5. ADDITIONAL CONSIDERATIONS

On loss and damage

As described through this paper, World Vision currently provides considerable agricultural sustainability assistance, comprising both adaptation to and mitigation of climate change across the spectrum of our humanitarian and development work. We support current recommendations for the Funding Arrangement for Loss and Damage Mitigation (set up as of COP27) to be implemented in large measure through development sector implementing partners. Like World Vision, such partners will assist in sustainable agricultural livelihoods and market development measures to increase the livelihoods resilience in service to groups most highly affected by climate crises: farmers, fishers, herders, people who depend on forests for livelihoods and ecosystem services, indigenous peoples, and refugees.

A look ahead

World Vision has robust and active presence in countries characterized by deep climate fragility, and will continue to:

- Invest in programmatic research and evidence sharing that reflects our holistic climate response
- Prioritize gender equality and social inclusion with an emphasis on youth and persons with disability
- Test and scale interoperable digital solutions that foster climate adaptation and mitigation coupled with more sector or livelihoods-specific outcomes

Strategic partnerships

World Vision's climate investments increase benefits for climate-affected communities when leveraged against donor funding support and strategic partnership. Our work in land restoration and ecosystem services provides a distinct entry point for partnership with UN agencies, bilateral donors, the private sector and civil society, and other INGOS that have commitment to the participation, inclusion, and access to land and natural resources available to communities most at risk to negative climate impacts. While World Vision has a strong record in implementing climate response solutions, our most important role going forward will be leveraging our significant global footprint and operations to catalyze climate resilience within systems, inform practical climate policy measures, and provide leverage for optimizing broad climate stakeholder coordination efforts within LMICs action.

To date, World Vision has successfully established and scaled global strategic partnerships that support climate action with the UN Food and Agriculture Organization, Syngenta Corporation, the Syngenta Foundation for Sustainable Agriculture, and the World Food Program. World Vision's sector-specific strategic partnerships further contribute to holistic climate action. One example is our partnership with Grundfos, one of the largest submersible pump manufacturers in the world, who is working with us to provide climate-focused technical support and sizing recommendations. Likewise, our time-bound, local and regional partnerships ensure locally-led solutions to climate challenges wherever we work.

World Vision amplifies our climate action impact through donor funding and partnership.

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