



Photo: : Timor L'Este, Miguel Samper for Mercy Corps

ENVIRONMENT, ENERGY, AND CLIMATE CHANGE

Technical Unit Sector Approach

APRIL 2018

Environment, Energy, and Climate in Context

The majority of the world's people living in poverty now live in fragile and crisis-affected areas, and it is these complex crises that are the major drivers of extreme poverty and suffering in the world. Mercy Corps responds to this reality by combining humanitarian response with long term actions to address the root causes of crises. These root causes are by definition complex, encompassing a wide range of intertwined social, economic, and ecological drivers of shocks and stresses that compound one another.

These complex interactions require interventions that operate at a systems level, addressing root causes that exist beyond any single community. This is the essence of Mercy Corps' approach to resilience, which seeks to build long term, equitable development in the face of a shifting set of shocks and stresses, enabling countries to avoid slipping into complex crises.



Ecosystem services and resources, climate resilience, and reliable energy are essential inputs for economic prosperity and human well-being. Development programming which fails to account for these is neither sustainable nor resilient. Climate change, natural resource degradation, and poor access to sustainable and reliable energy all increase the vulnerability of poor households, which is at the root of complex development challenges.

Climate resilience, ecosystem services and resources, and reliable energy services are inextricably linked. This is particularly true where resources are already degraded or depleted, creating a cycle of rapid degradation which further inhibits development. Similarly, while it is clear the economic gains vital to increasing long term development often depend on dramatic increases in energy consumption, reliance on traditional energy sources can lead to major natural resource depletion, environmental degradation, and contribute to climate change. This creates a negative feedback loop that undercuts resilience and contributes to root causes of complex crises.

In the past, development actors have struggled to effectively address climatic and ecologic issues compared to those within social and economic systems, leaving these concerns to “environmental conservation” NGOs which do not have a core focus on human wellbeing. **However, the poorest and most vulnerable people in the world are disproportionately reliant on natural resources for their livelihoods, and least able to cope with and adapt to shifts in weather patterns or reduction in ecosystem services.** Therefore, strategies that aim to enhance human wellbeing must explicitly consider climate and ecosystem services directly within the framework of desired development outcomes.

Access to energy, in turn, is a key driver of economic development and poor energy access is a significant barrier to economic security. Increases in per capita energy consumption is strongly correlated with a rise in national GDP and with gender equality, and is a key input for poverty reduction. On a micro-level, access to energy opens options for significant time and income saving, better health and education outcomes, and reliable power to fuel labor saving and income generating appliances, generating an immediate and tangible improvement in social and economic well being for the user. Technology advances mean this is now all possible, and in many cases easier, through renewable energy sources, making investment in clean energy pathways a building block for stability, economic development, equity, and resilience.

Environment, Energy, and Climate at Mercy Corps

Mercy Corps believes consideration of climate challenges, landscape-scale natural resource management, and energy access are all required to support long-term, resilient development. We seek context-appropriate development strategies that harness the opportunities presented by new technologies, partnerships, and commercial models. By doing so, we aim to enable sustainable access and use of resources as a direct and vital input for equitable economic growth:

Team Goal:

To help Mercy Corps secure humanitarian and development outcomes by increasing Mercy Corps’ ability to implement effective programs that support climate adaptation, natural resource management, and access to clean energy.

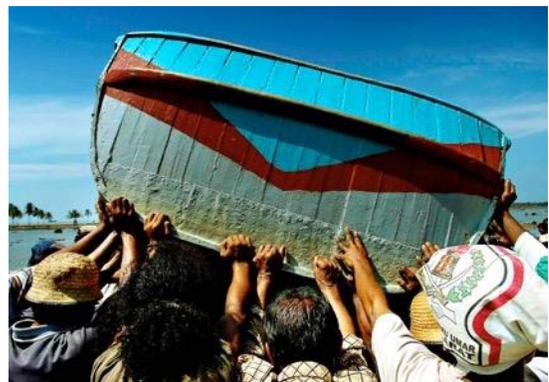


Photo: Indonesia, Cate Gillon for Mercy Corps

Objectives

1. Transform Mercy Corps' capacity to understand, design, adaptively operationalize, and evaluate the role of climate and ecosystems across programs within country groupings I, II, and III.
2. Amplify the impact and influence of Mercy Corps' Energy Access portfolio through internal mainstreaming, increasing dedicated funding, and ensuring quality programming.
3. Hone the Strategic Resilience Assessment (STRESS) process to ensure it provides Mercy Corps' teams the ability to operationalize resilience thinking for program strategy and design, and contribute evidence to our global influence strategy.

Key Principles

Resilience Approach: To foster long-term, equitable development in the face of a shifting portfolio of shocks and stresses, enabling countries to avoid slipping into complex crises. This approach is based on the development of long term strategies and measurable theories of change for resilience at the landscape-scale. It recognizes the role of Mercy Corps as a convener and facilitator, and that success relies on action and ownership from local public, private, and institutional actors.

Systems Thinking: A logical and in-depth analysis of the complex socio-ecological systems within which communities exist.

Successful interventions must consider the interconnected nature of markets, ecosystems, governance structures, and key elements of the enabling environment in order to identify the underlying constraints that prevent equitable and peaceful growth.

Market-based Solutions: In many instances market systems offer the potential for long-lasting solutions to climate, natural resource, and energy access goals. Mercy Corps uses a market-driven approach that harnesses private sector partnerships, where feasible and suitable, to design, implement, and measure interventions that alleviate poverty and create opportunity.

Partnerships: Solutions to complex problems must be grounded in effective collaborations between a broad range of stakeholders that each bring specific knowledge, perspectives, and experience. Mercy Corps believes that change happens through ownership by private, civic, and public sector actors. We believe in supporting local actors' and strengthening linkages that improve opportunities for the poor.

Humanitarian Response: Interventions must meet the needs of communities experiencing acute and chronic emergencies efficiently, effectively, respectfully, and responsibly. We take measures to avoid disrupting ongoing development efforts or existing markets, while actively seeking to support long-term development before, during, and after a crisis occurs.



Photo: Timor L'este, Nicholas Brubaker for Mercy Corps

EEC Technical Sub-Sector Approaches

Climate Resilient Development

The impacts of climate change are not a distant threat. Across all continents, urban and rural populations and the ecological systems they rely upon have felt the impacts of climate change.¹ The effects of the physical consequences - increased occurrence and intensity of extreme weather events, threats to global food production, and changes to global and regional hydrological cycles - exacerbate the issues that drive fragility and limit development across the least developed and most crisis-affected nations.



Photo: Yeman, Matt Styslinger for Mercy Corps

Today, in Northern Kenya, communities are struggling to produce food as drought-induced desertification destroys productive land. In 2006 northern Afghanistan experienced flooding that left nearly 2 million people in need of food assistance. In 2013, the Philippines was devastated by the most powerful tropical storm ever recorded. Meanwhile, it is increasingly acknowledged that this century's worst humanitarian crisis in Syria was a result of numerous complex circumstances, of which a severe drought was a contributing factor.

Climate-induced disasters are a direct and acute source of humanitarian crises, which threaten development objectives. Since 2000, climate-related disasters have increased by 44 percent, now accounting for more than 80 percent of all major internationally reported disasters. Droughts alone, which have increased in intensity and severity across the planet, have affected more than one billion people between 1994 - 2013.² Climate is also a magnifier of existing development challenges. Climate changes increase risks of violent conflicts by amplifying drivers such as resource competition, food price volatility, livelihoods insecurity, and water management. The most vulnerable are marginalized groups, such as woman and youth, who lack resources to prepare for and manage these impacts.

[Mercy Corps' Climate Resilient Development approach](#) recognizes the need for climate adaptation strategies to contribute to long-term development objectives. **This development-first approach builds climate resilience through strategies that reduce poverty, enhance social cohesion, and strengthen governance for the most marginalized and impoverished.**

Mercy Corps' work addresses the natural consequences of climate challenges while acknowledging the social, economic, and political realities underpinning vulnerability. [PRIME](#), is improving resilience among 250,000 pastoralist households in Ethiopia by using climate data to catalyze market-driven activities and strengthen local and regional economies. Our urban climate governance program, [ACCCRN](#), in Indonesia has established networks of city government agents and institutions to build capacity to prepare for the longer-term impacts of climate change on urban centers. In Nepal and Timor Leste, Mercy Corps' [M-RED](#) program is bolstering the coping capacity of communities by economically incentivizing climate informed disaster risk reduction measures through market systems development.

¹ IPCC 2014, Summary for policymakers, Impacts, Adaptation, and Vulnerability.

² CRED 2015, The Human Cost of Natural Disasters 2015: A Global Perspective, Center for Research on Epidemiology of Disasters CRED.

Natural Resource Management

People living in rural, extreme poverty are heavily and disproportionately reliant on natural resources. Small-scale livelihood activities in the forest, fishing, agriculture, livestock, and mining sectors contribute 15 to 70 percent of rural household cash incomes and even greater values for subsistence.³ Lacking physical and financial capital, the poor are unable to make the investments needed to sustainably derive maximum benefit from their use. With weak support from ill-equipped and opaque institutions, access and use of natural resources is highly susceptible to environmental shocks and degradation. Exacerbated by population growth and climate change, competition over land, grazing areas, and water resources is increasingly triggering localized conflicts. Over the past 60 years, 40 to 60 percent of ongoing internal armed conflicts in fragile states have been linked to natural resources.⁴



Photo: Liberia, Sean Sheridan for Mercy Corps

Natural resources are therefore at the core of the disabling cycle of extreme poverty that Mercy Corps aims to disrupt. **Evidence from the field suggests that environmental and social outcomes improve in the places where the poor effectively engage in Natural Resource Management (NRM).**⁵ Mercy Corps is committed to engaging in a systems approach to support sustainable, inclusive, and cooperative community-based natural resource management. We aim to do so at the transboundary, landscape-scale, linking stakeholders from local, national, and international levels.

Mercy Corps supports NRM across a broad range of development contexts and sector-based approaches. In Southern Ethiopia, the three-year, *Communities Helping their Environment and Land by Bridging Interests (CHELBI)* program is reducing violence among agricultural and pastoral communities by strengthening formal and institutional land management dialogue and agreements. In Afghanistan the seven-year *Catchment Development Program (I and II)* developed NRM systems and methods for reducing erosion, deforestation, and overgrazing. In Semarang City, Indonesia, the three-year ACCCRN *Enhancing Coastal Community Resilience by Strengthening Mangrove Ecosystem Services and Developing Alternative Livelihoods in Semarang City* program will build the climate resilience of urban poor communities by reducing their long-term exposure to coastal flooding through increased capacity of municipal budgeting and governance structures.

3 USAID 2006, Issues in Poverty Reduction and Natural Resource Management

4 AfDB 2014, From Fragility to Resilience: Managing Natural Resources in Fragile States in Africa

5 USAID 2006, Issues in Poverty Reduction and Natural Resource Management

Energy Access

More than 1.3 billion people today continue to live without access to basic, modern electricity services, and 2.7 billion people, the majority of whom are concentrated in countries where Mercy Corps

works, rely on traditional biomass for cooking, which causes harmful air pollution.⁶ **The number of people without electricity services has remained consistent since the 1970's**, which means national grid expansion has only kept up with population growth. **It is very clear that without access to clean, affordable, and reliable energy services, sustainable economic development is not possible.**

We know that for countries at the lowest rungs of the Human Development Index (HDI), increased per capita energy consumption has a strong correlation to social development indicators, such as maternal mortality, infant mortality, and GDP per capita. We also know that gender equity and access to energy resources are strongly correlated, with women benefiting most from time and income savings, and increased income potential that access to household energy access enables.⁷ Mercy Corps defines development as working to build secure, productive, and just communities, which means access to reliable and affordable energy is a foundational need for development. However, energy extraction can lead to environmental degradation and carbon emissions. By investing in increasing access to clean energy, we ensure the health of energy consumers today and the sustainability of our economic development for the future.

At Mercy Corps, we see energy access as fuel for the economic and social changes needed to address extreme poverty; energy access is what DFID calls “a binding constraint for inclusive development”. Scalable rural electrification solutions are primarily market-based and entrepreneur driven, and investment in off-grid energy companies is accelerating. However, despite this success, the need for off-grid energy products and services far outstrips the pace at which these companies are able to expand. The complex and fragile environments where Mercy Corps works do not represent attractive investments for commercial actors when investing alone, meaning many potential customers will remain energy poor for the foreseeable future.



“The biggest problem that humanity faces is one of sustainable energy. If we don’t solve that problem this century, independent of any environmental concerns, we will face economic collapse.”

— Elon Musk



Photo: Ethiopia, Shanti Kleiman for Mercy Corps

6 United Nations 2011, Sustainable Energy for All (SEforALL); Mercy Corps works in 16 of the 20 countries with the highest deficits in access to electricity.

7 Deloitte University Press 2014, Women, energy, and economic empowerment

Mercy Corps' role is key in accelerating the expansion of the private sector to reach beyond dense population centers and develop service providers where none exist, providing the energy inputs needed for local economies to thrive in complex and fragile environments. Mercy Corps' market systems development programming provides a perfect platform for encouraging investors and facilitating the development of energy market systems.

Mercy Corps supports access to clean, reliable, and affordable energy services across a range of development and humanitarian contexts. The [Myanmar Stoves Campaign](#) program is the first carbon credit project in Myanmar. The program demonstrates market potential and tests business models, creating clean cooking sales agents targeting female consumers. Timor Leste's [Energy for All](#) program facilitated access to alternative sources of energy and renewable sources of fuel, stimulating the sale of 10,000 products and increasing access to renewable alternative energy products for 36,000 households. In Kenya, the [RKNDLE](#) program developed a market for solar lanterns, and the [Yes Youth Can](#) program organized youth cooperatives into sub-distribution hubs for stove sales. In Nigeria, d.light solar products are offered as an option for young women trained through the *Empowering Nigerian Girls in New Enterprises (ENGINE)* program. In Afghanistan, the *Helmand Agricultural Support Program* has established a lease-to-own 60KW solar micro-grid with an independent power producer, providing clean energy services to a University.



Photos: Top: Myanmar, Stoves Campaign Program, Mercy Corps; Bottom: Indonesia, Nicholas Brubaker for Mercy Corps, Energy for All Program

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About Mercy Corps

Mercy Corps is a leading global organization powered by the belief that a better world is possible. In disaster, in hardship, in more than 40 countries around the world, we partner to put bold solutions into action — helping people triumph over adversity and build stronger communities from within. Now, and for the future.



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