



Net Zero Adaptation Finance: Climate Risk Screening for Carbon Projects

Project Overview

Funded by the [Global Environment Facility](#) and carried out in partnership with the [Food and Agriculture Organization](#) of the United Nations, the Net Zero Adaptation Finance (NZAF) project, led by Winrock International, aims to integrate climate change adaptation into carbon projects in the agriculture, forestry and other land use sector (AFOLU) sector in least developed countries. These countries rely heavily on AFOLU for their development but have historically received little financing for climate adaptation

Overview of the NZAF Climate Risk Screening Tool

Building from an existing tool designed for the [Acumen Resilient Agriculture Fund](#), NZAF's updated tool provides qualitative analysis of climate risks, identifies existing climate adaptation practices in the carbon project design, identifies potential for maladaptation, and identifies potential adaptation activity improvements for carbon projects. The tool both reduces risk from climate change to carbon projects **and** assesses how proposed projects can generate adaptation and resilience co-benefits in target communities.

Tool Logic

PHASE 1: **IDENTIFY** CLIMATE RISKS RELEVANT TO THE PROJECT



PHASE 2: **ASSESS** HOW WELL THE PROJECT REDUCES CLIMATE RISKS



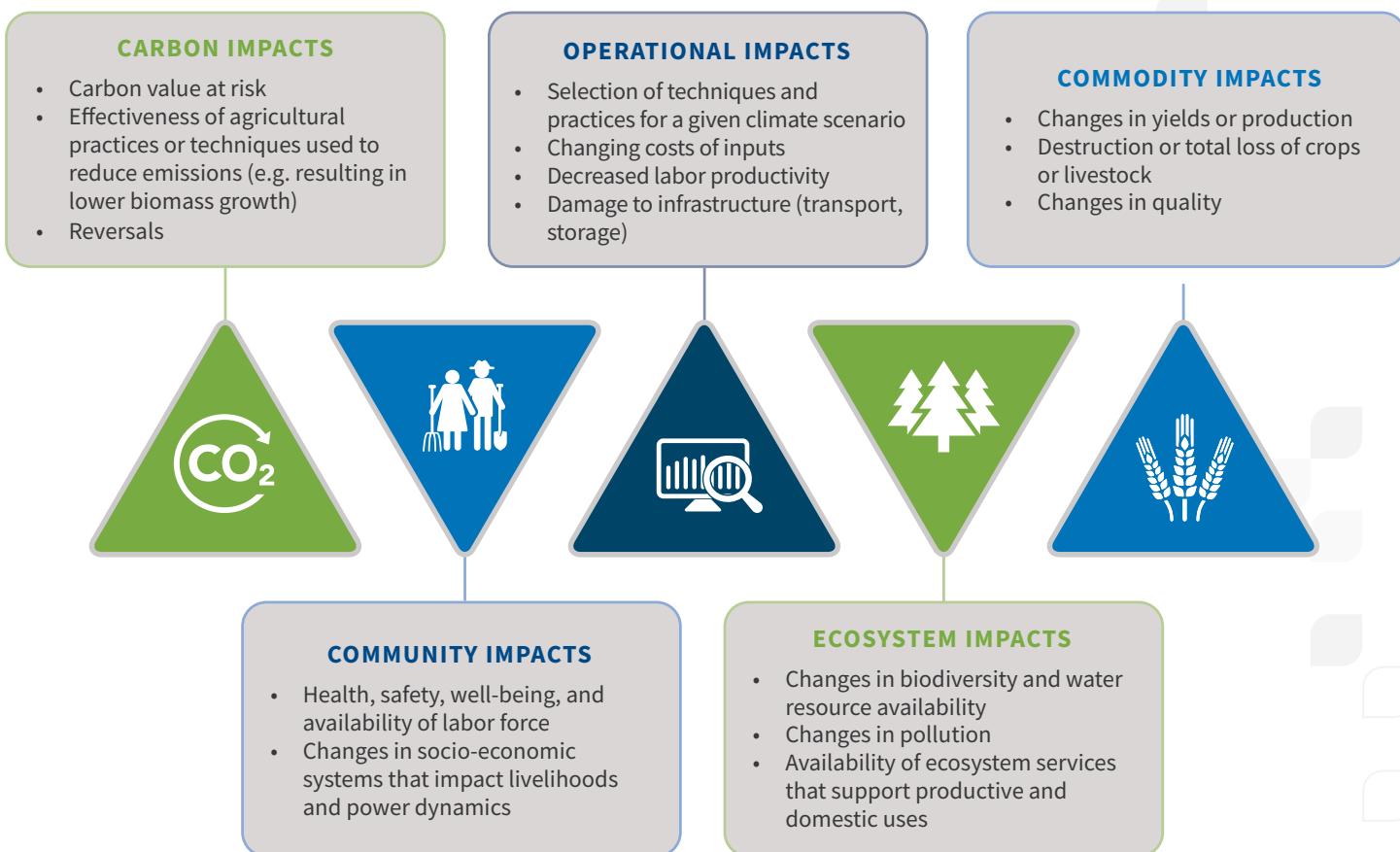
PHASE 3: **ADDRESS** RISKS BY RECOMMENDING ADDITIONAL PROJECT ACTIVITIES



Impact Analysis

To better understand and communicate how climate risks will impact the proposed project and community, the tool will analyze how identified risks drive impacts across five categories – carbon, commodity, operational, communities, and ecosystems as applicable. Illustrative impacts are shown below:

FIGURE 1: ILLUSTRATIVE IMPACTS ACROSS CARBON PROJECT CATEGORIES



Tool Testing Process

The testing entailed using publicly available project design description (PDD) documents to test the logic of the tool. Selected projects included:



Regenerative Agriculture with Small Holder Farming Communities of Bangladesh

- ▶ **Implementer:** Value Network Ventures Advisory Services
- ▶ **Timeline:** 2022-2042
- ▶ **Summary:** The project is located in nine districts in Bangladesh around Dhaka and in the upper Northwest of the country and aims to reduce greenhouse gas emissions by promoting regenerative and sustainable farming practices across a range of commodities including potato, ladies finger, beans, cucumber, cauliflower, cabbage, eggplant, wheat, jute, and maize. This project is registered under Verra's Verified Carbon Standard (VCS).



MoRe Malawi ARR Project

- ▶ **Implementer:** Mamaland Company
- ▶ **Timeline:** 2025-2065
- ▶ **Summary:** The project is located in the Dzalanyama Forest Reserve in Malawi's Central Region with additional sites planned as part of phased implementation. The project reduces greenhouse gas emissions by undertaking forest restoration, forest maintenance, and community-based activities. This project is registered under Verra's Verified Carbon Standard (VCS).

NZAF developed a rudimentary excel-based tool with some automation to take the analyst through a systemic process of assessing climate risk for over 30 risk indicators, assessing project activities, proposing adaptation actions, and analyzing impacts on carbon projects and the associated communities.



Tool Testing Findings and Proposed Solutions

Multiple Geographies and Agricultural Systems

PROBLEM:

For projects with multiple non-contiguous sites or varied crops and approaches it's time consuming to conduct multiple analyses and not clear how to generalize the data to identify project-level risk

SOLUTION:

Assess if geographies are climatologically similar and can be grouped

Leverage AI to reduce time and labor required to analyze non-contiguous geographies or diverse crops

Methodological Consistency

PROBLEM:

For selected indicators, the tool relies partially on existing risk rating methodologies from FAO and WRI which are not calibrated with each other and do not necessarily fit into the NZAF risk rating approach

SOLUTION:

Provide contextual information on how FAO and WRI tools calculate risk ratings

Provide clarifying information on how analyst translates risk ratings to work within the tool framework

Maladaptation

PROBLEM:

Maladaptation analysis is absent from this iteration of the tool

SOLUTION:

Integrate maladaptation into phase 2 of the analysis, so that we are assessing both negative and positive impacts or project activities.

High Complexity and Labor Intensity

PROBLEM:

Currently the tool has 17 data sources and some indicators require additional calculations and risk rankings

SOLUTION:

Reduce number of indicators

Select a sub-set of relevant indicators for each project

Leverage AI to fetch and structure data

Lack of Analytic Guidance

PROBLEM:

Because each project is context-specific in terms of agro-ecological zones, crop systems, and activities there's no single threshold for a given risk indicator that can be universally applied

SOLUTION:

Provide guidance and resources to assist analyst in determining evidence-based thresholds for indicators. Emphasize that this is a management and not a measurement tool with the goal of generally reducing risks and increasing adaptation

Carbon Project Impacts

PROBLEM:

While several options have been explored for rating impacts on carbon projects and communities, we have not aligned on a single process for assessing and communicating impacts is still undefined

SOLUTION:

Develop analytic questions to guide analyst on how to assess impacts on projects and communities

Provide resource document summarizing linkages between climate risks and impacts