Monitoring & Evaluation of

Nature-Based Solutions for Adaptation

Nature-based solutions (NbS) **for adaptation** are actions to protect, restore or sustainably manage natural or modified ecosystems to help people adapt to the impacts of climate change, such as those related to increasing temperature and erratic precipitation patterns.

Conservation International has identified 5 potential adaptation outcomes of NbS: **Food Security, Assets Protection, Livelihood Maintenance, Water Security, and Human Health and Security.**

Because the science of climate adaptation monitoring and evaluation (M&E) is still relatively novel, there is a knowledge gap on tracking the contribution of nature-based solutions for adaptation and, therefore, on their success. It is challenging to assess adaptation outcomes and best practice precedents are limited.

Based on CI experience with five country programs, we have identified recommendations on how to design an M&E system to track human adaptation benefits from nature-based solutions.

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How can data be collected to track the human adaptation benefits?

Direct monitoring

In Kenya's Masai Mara Conservancies, rangers on patrol or community leaders record observations related to human wildlife conflict (e.g., observations of injured or killed animals, crop losses).

Household surveys

In Mexico, government agencies conduct household surveys with smallholder farmers to collect information on agriculture production, including planted areas, harvest, crop damages, and perceptions of climate change.

Government assessments

In Fiji, local government collects information after a disaster event such as a cyclone to assess damages to infrastructure and crops.

How often can data be collected to track human adaptation benefits?

Data gathering is ideally completed at baseline, during, and after projects completion.

- Baseline data informs project design and the situation prior to the implementation of NbS.
- Mid-line data can inform adaptive management.
- End-line data is compared to baseline and mid-line data to evaluate outcomes.

What is being measured?

Food Security

Food security of smallholder farmers affected by climate related hazards, such as floods, cyclones, droughts (% of farmers moving into food security category)

Assets Protection

Proportion of agricultural crops, properties, and infrastructure lost or damaged due to flooding and cyclone events (% or $ value)

Livelihood maintenance

Income or crop productivity from alternative climate-resilient livelihoods (% changes in income or crop productivity)

Water security

Water security of households in areas affected by less precipitation and higher temperatures (% of households moving into water security category)

Human health & security

Human-wildlife conflicts exacerbated by extended dry periods (# of incidences of deaths, injury, poaching, poisoning, crop raiding, property damage)

for more information:
www.conservation.org/EbA

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Data: 2020
SIAP Mexico, MMWCA Kenya, CI Madagascar, UNTAG Indonesia, DMO Fiji Government

COMMUNITY PARTICIPATION

CI Country Programs teams worked with local communities to ensure that the experiences, perspectives, and needs of target populations were at the heart of project implementation and goals. This involved conversations with local leaders, governments, and community members.

203 kg/ha/y harvest of coffee beans

Chiapas and Oaxaca, Mexico

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every

BUILDING ON EXISTING SYSTEMS

In many cases, several data and monitoring systems were already in place (even if not directly for the purpose of nature-based solutions for adaptation). By using the strength of existing systems, and adding an adaptation lens, we avoided duplication and improved efficiency, while promoting new applications.