Conserve Nature

2025 TARGET: Restore 1.5M hectares of tree cover + conserve 500,000 hectares of forest and secure 100 million tonnes of carbon.

INDICATOR OF SUCCESS	CORE METRIC	RATIONALE[1]
Area restored with increased tree cover	# of hectares restored	This indicator looks at the total area with increased tree cover on coffee farms and their immediate surroundings.
Area of forest protected	# of hectares of forest area conserved	This indicator looks at the # hectares of forests that are at-risk of deforestation and that are put under a formalized forest protection system (i.e. government and/or community-led)
CO2 secured (from conservation or restoration)	tCO2 removed (i.e. sequestration) tCO2 emissions avoided	This indicator accumulates the carbon benefits of investments that seek to maintain current carbon stocks through forest protection in coffee landscapes (i.e. avoided deforestation), drive additional carbon storage (i.e. restoration) on and off-farm. When reporting investments, the reporting entity should describe the methods and/or standards used to validate and verify to carbon secured.
CO2e secured (from reduced emissions)	tCO2e emissions reduced on farm	This indicator accumulates the carbon benefits of investments that reduce emissions through improved on farm practices. When reporting investments, the reporting entity should describe the methods and/or standards used to validate and verify to carbon secured.

ADDITIONAL PROXY METRICS: To count the contribution of investments that contribute to the forest restoration and conservation target, but where the partner is unable to measure the total area in # hectares or CO2 secured, the Sustainable Coffee Challenge is proposing the use of proxies. The metrics, rationale & calculations behind each are laid out below.

METRIC	RATIONALE	INPUT FOR CALCULATION	WHEN IT WOULD COUNT
# of trees (i.e. non-coffee) distributed to increase tree cover on farms[2]	Climate/ carbon targets are sometimes stated or tracked based on # tree seedlings that are distributed	Baseline average trees / ha, assuming % mortality rate Assumption of average CO2 stored / ha	Upon reporting in the Commitments Hub as it assumes that the distribution has already occurred

[1] SCC partners are expected to use internationally recognized definitions and rigorous methodologies to define and track forest restoration and conservation as well as investments in carbon sequestration and emission reductions.

[2] Proxy for "hectares restored"

# Voluntary Carbon Units (VCUs) purchased from certified carbon credit programs	Companies increasingly compensate for residual emissions (after reduction efforts) through the purchase of carbon credits on the voluntary market or (co)invest in a carbon project	Certificate of VCU – each VCU represents a reduction or removal of one tonne of CO2e achieved by a project. In reporting on commitments, partners are expected to identify whether the carbon offset project is focused on emission reductions or carbon removals.	Upon issuance and retirement of the VCU, and when reported in the Commitments Hub

ASSUMPTIONS & DATA CONTEXT:

To arrive at the 2050 goal and 2025 targets for the *Conserve Nature* compass point, the Challenge team combined coffee production datasets (e.g. FAO for volume + hectares; Dalhberg for renovation) with climate datasets and sources (e.g. CIAT for suitability; Global Forest Watch for forest cover; Jha et al. and Rikxvoort et al. for carbon in coffee systems). Based on calculations using this combined dataset, the team arrived at the 1.5 gigaton 2050 goal as well as the **100M tonnes carbon 2025 target**. The latter can be met through 3 key interventions:

- **Protect –** Renovating at least 286,000 hectares of smallholder farms in countries with a high R&R need[3], would increase production by over 224,000 MT and **avoid clearing of nearly 500,000 hectares** (according to Dalberg report). These efforts to avoid deforestation has a potential **carbon benefit of 75M MT**.
- **Restore -** Introducing additional trees on farms on at least **1.5M hectares** by introducing up to 25% of shade in full-sun systems[4]. These restoration efforts could already **store an additional 19M tons** of carbon (according to Jha et al 2012 and Rikxoort et al 2014) in coffee systems.
- **Manage –** improved landscape management and the implementation of on-farm climate smart agricultural practices, is key to reduce GHG emissions (e.g. reduced fertilizer use). Given the lack of reliable data and wide variety in production systems across coffee producing countries, it difficult to measure, compare, verify and aggregate reduced carbon footprint at sector-wide level (as opposed to individual company footprint). However, specific project-based investments made to reduce on-farm GHG emissions can be accounted for and aggregated. As such, these investments should at least reduce overall emissions with 6M tons CO2e (baseline = 0) to reach our overall target of 100M (i.e. 75M + 19M + 6M = 100M)

While the calculations behind the 2050 goals and 2025 targets for 'Conserve Nature' were based on simplified scenarios for investments in specific countries, there is a clear need for investments across all coffee producing countries.

[3] Based on a calculation addressing 25% of the R&R need in Indonesia, Ethiopia, Uganda, Mexico and Peru.
[4] For the purpose of calculation, the 1.5M hectares were spread over Brazil, Indonesia, Vietnam and Mexico.