

# RIL-C INFOGRAPHIC

## Reduced Impact Logging Carbon to reduce emissions from natural production forests in Indonesia

### What is RIL-C?

**Reduced impact logging (RIL)** is the intensively planned and carefully controlled implementation of logging operations to minimize the environmental impact on forest stands and soils. RIL has been developed since early 1990s and is currently being implemented in many logging concessions in Indonesia.

As reduced impact logging operations would contribute to efforts to reduce carbon emissions, in 2009 The Nature Conservancy conducted a study to quantify the carbon benefits of RIL. Built on the results of this study, the RIL-C methodology was developed. The RIL-C methodology is intended to maximize the carbon benefits of the RIL.

#### RIL-C consists of

1. a set of targeted improved practices to reduce carbon emissions, which is RIL-C practices; and
2. a methodology for quantifying the emission reductions from improved logging practices.

Why do we need specific actions beyond RIL to maximize emission reductions?

- Regardless of their overall application of RIL, concessions have lower carbon emissions if they improve their performance in the following parameters: number of abandoned felled trees, felling damage and waste, skidding damage, and logging road width.
- RIL-C includes specific actions to improve the performance for the above parameters. For example, using the plunge test reduces wood waste, applying cable yarding reduced skidding damage, and narrowing logging road corridors reduces hauling footprints.



### Why RIL-C?

**1** **Twenty million hectares** of Indonesia's forests are under timber production from selective logging.

**2** Compared to conventional logging, RIL-C provides a cost-effective emission reduction option. Several studies reported a small additional cost for RIL implementation; in some cases, RIL implementation could cut costs.

**3** RIL-C is proven as a robust and simple methodology for quantifying a carbon benefit (**registered at a Verified Carbon Standard-VM 0035 Version 1.0**).

### How much is emission reduction from RIL-C?

The average carbon emission from logging in East Kalimantan is

**51.1 tons C/ha (1.5 tons C/m<sup>3</sup> timber extracted).**

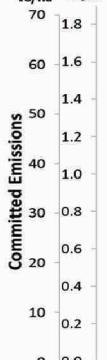
This represents **20.6%** of living biomass of forest before logging.

Logging affected only **69%** of logging block.

RIL-C could potentially reduce logging emission up to **40%**, i.e. **20.4 tons C/ha.**

A RIL-C demonstration in **500 ha** of logging concession showed even higher reduction that RIL-C effectively reduce emissions by **50%**.

tC/ha    tC/m<sup>3</sup>



Existing Practices      RIL-C Practices

#### RIL-C Practice

- **Felling: Avoid felling defective trees** (28%)
- **Felling: Improved technique** (18%)
- **Skidding: Dozer skid trail planning** (18%)
- **Skidding: Use MCW** (30%)
- **Hauling: Small log landings** (5%)
- **Hauling: Narrower haul roads** (9%)

Multiplying the reduced emission/ha of cutting block (**69% of 20.4 tons C/ha**) with the annual cutting block area of logging concessions in Indonesia (**466,667 ha/year**), the RIL-C could potentially reduce emission of **6.6 million tons C/year** or **24 million tons CO<sup>2</sup>/year.**



# How RIL-C could be implemented to support REDD+?

RIL-C contribution to the emission reduction in East Kalimantan under FCPF Carbon Fund - A case study

RIL-C will contribute to at least 13% of the total emission reduction target. The RIL-C model in East Kalimantan could be scaled up to national level to contribute to the achievement of Indonesia's Nationally Determined Contribution.

## Activities needed are

capacity building for logging concessions and KPH staff in implementing RIL/RIL-C practice, and

capacity building for KPH staff in auditing and calculating carbon emissions reduction from RIL-C.

Emissions Source proportion

