A Powerful Natural Climate Solution: Reduced-Impact Logging for Climate Change Mitigation (RIL-C)

Manuel Reyes Estate walks the Chico Zapote logs waiting to be hauled off after being cut in the tropical rainforest of Noh Bec, Quintana Roo. © Erich Schlegel

WHAT ARE NATURAL CLIMATE SOLUTIONS (NCS)?

Natural climate solutions incorporate strategies for protecting and restoring terrestrial ecosystems and improving land management to reduce emissions and/or enhance carbon storage. These strategies focus on three ecosystems: forests (which represent the greatest mitigation potential), grasslands (including agriculture and rangelands) and wetlands (including peat lands). The latest research from The Nature Conservancy (TNC) shows that NCS can cost-effectively deliver more than one-third of the near-term climate mitigation needed to keep global warming below 2ºC. Natural forest management is one of the largest NCS pathways, which includes TNC's RIL-C methodology for selective logging in the tropics.

The Nature Conservancy's Bambang Wahyudi (center) works with logging companies to practice reduced-impact logging (RIL). © Bridget Besaw

WHAT IS REDUCED-IMPACT LOGGING FOR CLIMATE CHANGE MITIGATION (RIL-C)?

The Nature Conservancy developed RIL-C as a practical methodology to measure and verify reductions in greenhouse gas (GHG) emissions achieved through reduced-impact logging practices. This methodology strengthens the link between good forest management and forest protection by clarifying the best practices for maximizing living carbon in forests and allowing forest managers to access incentives for climate mitigation.

RIL-C provides the forest managers with a menu of responsible practices along with a credible way to quantify the carbon savings from improved harvesting practices. This means that, along with the timber, another important commodity can be extracted from selectively-harvested forests – namely, credible evidence of carbon savings. RIL-C techniques include reducing wood waste, more care in the direction of felling, the building of fewer and narrower access roads, the mapping-out of skid routes, and the use of specialist forestry equipment such as winches instead of bulldozers. The dividends can be surprising. Typically, the carbon savings can achieve 50%, without immediate reductions in timber extraction, and actually increasing long-term timber yields by 10-to-20%.

WHAT ROLE CAN THE PRIVATE SECTOR PLAY?

Improved natural forest management, together with avoided forest conversion, comprise the most immediate, low-cost natural climate solutions

A logging road through the dense forests of Borneo, Indonesia. © Bridget Besaw

available, delivering improved air and water quality, more resilient soils and biodiversity, and increased carbon storage. They both generate all these benefits in one simple way: keeping more trees alive. In the tropics, the immediate opportunity for improved forest management is through implementation of improved logging practices through TNC's RIL-C methodology. There is an urgent need to build alliances between the conservation and forestry communities: about a quarter of the planet's remaining tropical forests are managed for timber. Improved forest management of natural forest can not only reduce the direct impacts of logging but can also increase the likelihood that forests remain forests. Where natural forest logging concessions are no longer active, forests are at risk of illegal logging and deforestation.

TNC and World Wildlife Fund (WWF) field studies in Peru, Suriname, Mexico, the Congo Basin, and Indonesia have shown that RIL-C can reduce emissions by 50 percent without loss of wood yield or forestry sector jobs. We estimate that RIL-C can deliver 366 million tonnes CO_2 climate mitigation per year at a cost of <$10 per tonne of CO_2. The business community has an important role to play, particularly those companies that use wood from the tropics, which can require responsible management of their suppliers, including application of credible forest certification along with RIL-C. But consumers play an equal, if not more, influential role. Consumer pressure gives the global business community (and less directly, governments) a compelling reason to put its considerable economic weight behind climate-smart forestry practices. By raising awareness of the issue and rallying around RIL-C solutions, stakeholders can help to share the burden of moving towards responsible management with the actual producers of timber, who have too often been expected to shoulder a disproportionate share of the responsibility.

Forest planner Suryadi Mentemas tags trees at the number four concession logging area in the Kalimantan region of Borneo, Indonesia where the logging company he works for has been given permit to proceed with reduced impact logging (RIL). © Bridget Besaw