The need for data to support REDD+

For mechanisms like REDD+ to function, policy-makers and practitioners must be able to develop a reference level of emissions from past changes in the use and management of national forest lands, assess what interventions can be implemented in their future development strategies and how these will affect future emission scenarios, and develop a system to monitor the performance of their interventions on reducing emission from their forest lands. This requires access to quality data that are gathered through rigorous standards and collection methods and processed and managed with thorough quality control processes. To date, there are a variety of available datasets related to forests and emissions of greenhouse gases (GHGs) that have been collected for different purposes and scales, and thus are often difficult to integrate and harmonize. Attempts to integrate these data sets have led to high uncertainties surrounding estimates of forest cover, rates and extent of deforestation and forest degradation and GHG emissions. The data on these topics for the region are no exception and there is a clear need to develop a common starting point across the region.

![Figure 1: Annual carbon emissions (t CO₂ yr⁻¹) from deforestation 2000-2005 for the region.](image)

The Atlas’ Purpose

The purpose of this Atlas is to provide a preliminary or first order standardized source of information for the South and Southeast Asia region by presenting a comprehensive collection of the most relevant, current and trusted datasets available to the public,
including forest cover, forest biomass carbon stocks, and carbon emissions from deforestation (Figure 1.). In addition, data are provided for a series of associated land-based biophysical and socioeconomic factors, such as agriculture suitability that can be used to understand past patterns of land cover and land use change.

The datasets included cover the region as a whole, and are also presented for each LEAF country (Cambodia, Laos, Malaysia, Papua New Guinea, Thailand, and Vietnam.). The datasets can be used as the basis for a wide range of activities, including science-based analysis of threats of deforestation, such as from agriculture (Figure 2.), roads and change in population, to inform policy-makers and implementers in their design of emission-reduction strategies, or for countries and practitioners to determine historic emissions and define national circumstances to support them as they develop strategically targeted interventions.

![Spatial overlay of forest areas in 2000 with no or slight to moderate constraint (red) and with high and very high (green) constraints on soil nutrient availability.](image)

**Figure 2.** Spatial overlay of forest areas in 2000 with no or slight to moderate constraint (red) and with high and very high (green) constraints on soil nutrient availability.

**Just a Starting Point**

This initial version of the Atlas is only “Version 1.0” - its format allows for updates, additions, and other improvements as new and more country specific data become available. The authors hope that others will use this as an opportunity to share additional data, analyses, or thoughts that may be used to update future versions.

For questions or comments please contact:

Sandra Brown – Chief Scientist, Winrock International: sbrown@winrock.org
Silvia Petrova – GIS Specialist, Winrock International: spetrova@winrock.org
Alex Grais – Climate Change Mitigation Specialist Winrock International: agrais@winrock.org