

Figure 1: The first Landsat image captured on July 25, 1972, depicted a landscape of vegetation (red), urban and bare surfaces (white and grey) and water (blue) near Dallas-Fort Worth, Texas.

Through the maturation of the carbon market, remotely sensed data has become a crucial resource for demonstrating additionality (i.e. carbon benefits beyond the business-as-usual scenario) and supporting the development of high-integrity IFM projects. The integration of field-based plot measurements with remotely sensed data products like LiDAR-derived biomass estimates, Land Use Land Cover (LULC) rasters and spatially explicit annual forest loss products has expanded the ability of project developers to produce dynamic baseline scenarios that are reassessed and updated prior to each credit issuance. Beyond baseline development and ongoing monitoring, satellite imagery can also be used to visualize additionality, particularly in highly productive regions where landowners face strong pressure to undergo intensive timber management. Additionality in such regions can be seen through the visible patches of clearcuts around the boundary of the project property.

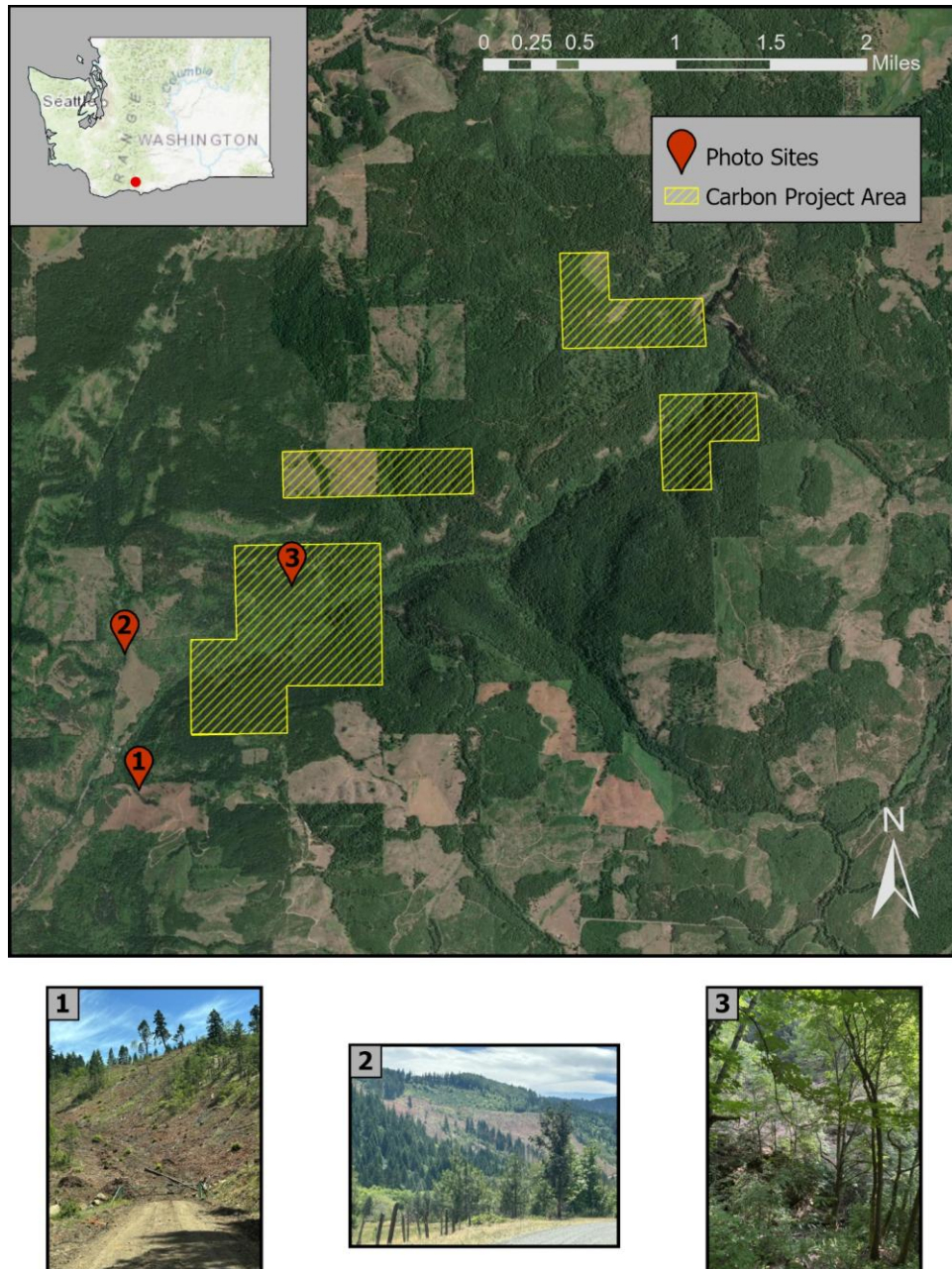


Figure 2: Additionality visualized through aerial imagery (Vantor, 5/24/2025) depicting clearcuts outside the Rattlesnake Creek property on The Climate Trust’s Cascade Forestry project with Columbia Land Trust. Photos taken during a project site visit in June 2025 are also shown.

IFM projects are often implemented at an inflection point in a landowner’s decision-making process. At this crucial moment landowners can either choose between managing their forests intensively for short-term timber revenue or adopt longer-term sustainable management practices funded by the carbon market. This decision can be directly observed through remotely sensed imagery, where differences in management style become visible over time. IFM programs provide an alternative income stream that enables landowners to generate revenue to support their expenses while maintaining the integrity of their forest ecosystems.