**Comparing Deforestation Alert Systems to Help Build Capacity to Prevent Forest Loss**

To participate in the United Nations REDD+ Initiative, countries estimate reference emissions levels from annual time-series of forest loss, gain, degradation, and other activities. While these reference levels provide valuable information on land use change and associated carbon emissions, the annual scale on which activity data is tabulated primarily allows for deforestation monitoring without the opportunity to prevent or limit deforestation events. Aiming for a more proactive approach, many countries, academics, and researchers have been working to develop and implement near-real-time deforestation alert systems that identify deforestation events within days or weeks, thereby providing enforcement authorities a chance to curtail these events.

In this presentation, I compare deforestation alerts from up to seven different alert systems at four field sites (Que Ninh, Mbaracayu, Tecpan, and Libreville) on three continents. This study tabulates the area of alert pixels within and adjacent to each deforestation site and compares the timing of alerts relative to PlanetScope daily reference data. These comparisons were conducted in the context of capacity building efforts by the U.S. Geological Survey SilvaCarbon Program which organized a series of workshops near each field site. During each workshop, in-country participants learned about the technical specifications, sensors, and relative strengths and weaknesses of each system. The purpose of these comparisons was to give in-country participants an understanding of what type of deforestation alert system might work best for them, offer insights into the complementary nature of different systems, and provide guidance on how to incorporate deforestation alert systems into national forest monitoring programs.