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A new approach to detecting deforestation in coffee growing regions

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Enveritas

Introduction

There is a growing demand for accurate deforestation detection in coffee supply chains for both regulatory compliance and voluntary carbon reduction. However there have been significant limitations to accurate estimation.

Materials/Methods

Recent developments in machine learning and satellite imagery can overcome these limitations. Improvements include building a new model using recent advances in satellite image resolution, and ground truthing the model.

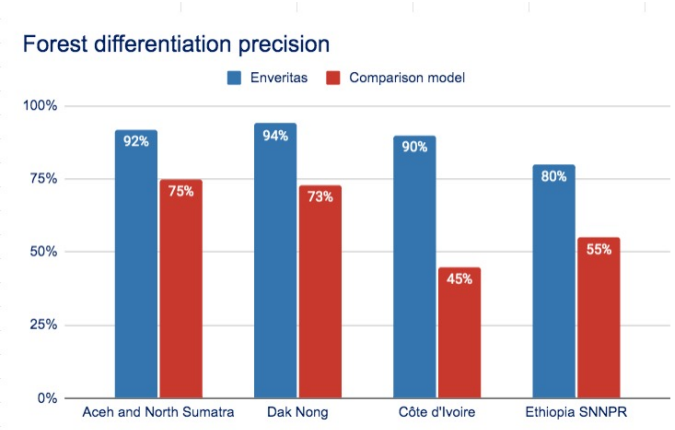

Figure 1: Model precision comparison

Results/Discussion

Our results suggest in the assessed area that actual deforestation is 40-80% lower than previous estimates due to limitations in satellite resolution and an inability to define forest or agricultural crops accurately.

Conclusion/Perspectives

This innovation has the potential to significantly support the coffee sector's efforts to combat deforestation and reduce carbon emissions in supply chains by providing more accurate deforestation detection.