

Assessing Crop Type, Extent, Production and Forest Disturbance in Asia and Africa

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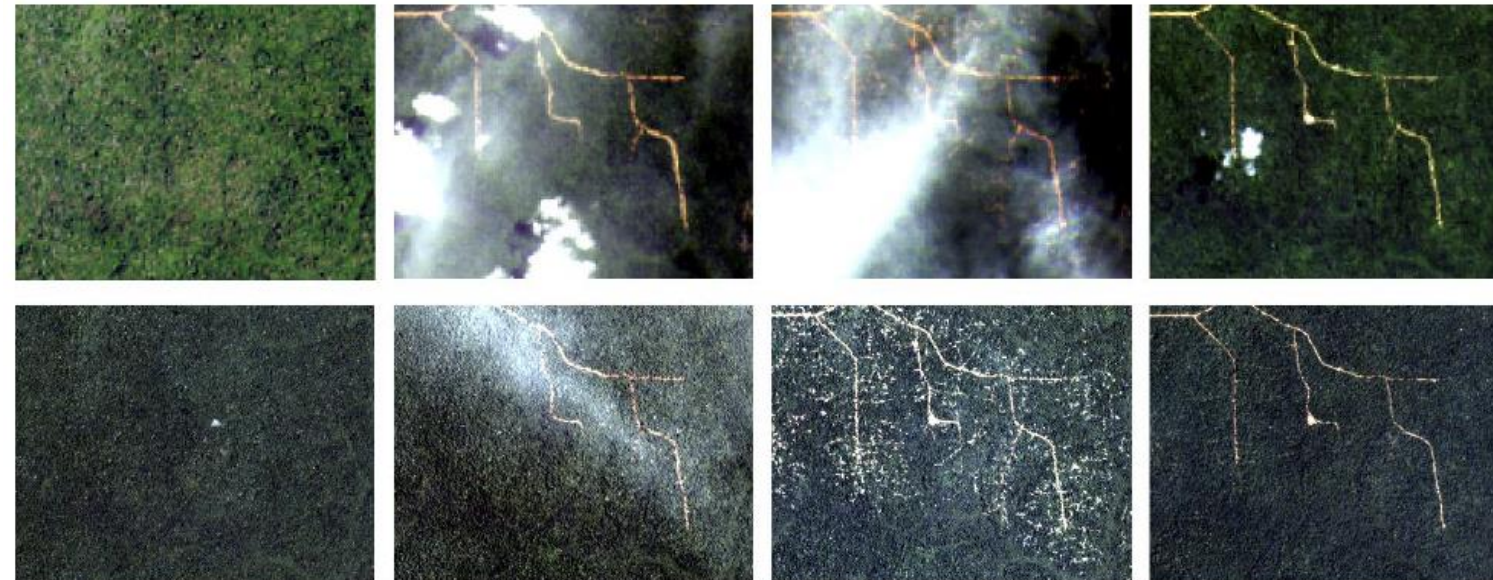
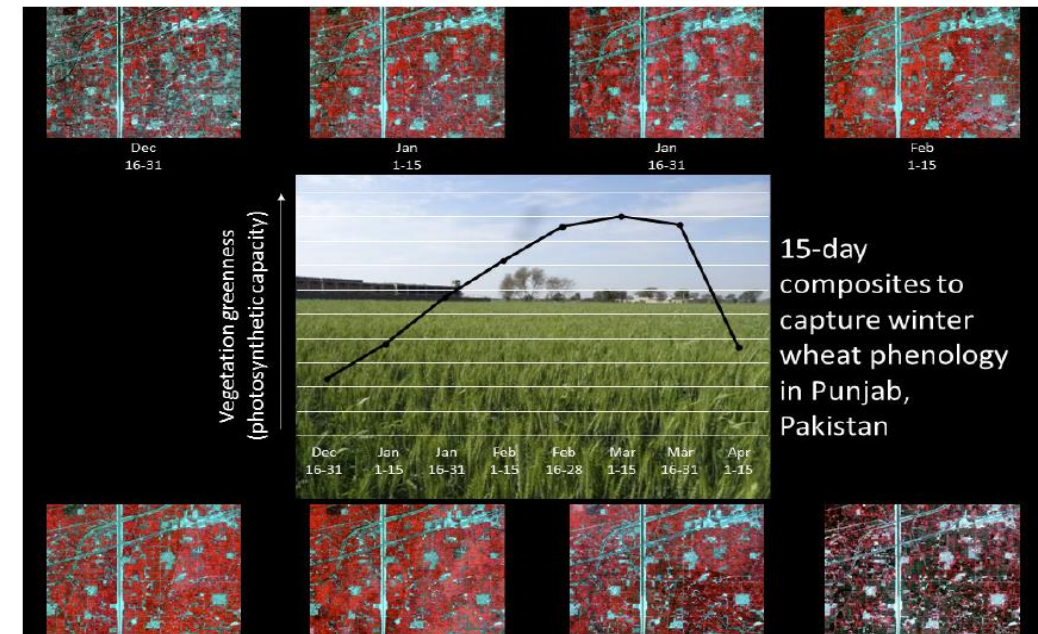
Purpose: Global agriculture production assessment and forest monitoring

Study Objective: Assess the usefulness of imagery for improved estimates of commodity crop extent and production, forest disturbance, and the resulting carbon stock loss at finer spatial scales in a timely manner.

Imagery: PlanetScope, LandSat-8

Findings: Wheat area estimates for Punjab, Pakistan produced using PlanetScope imagery were over 95% accurate, a 15-20% improvement over Landsat-8, which suffered from a too coarse a spatial resolution and inadequate temporal coverage. Planet data were found to be critical for the inclusion of all disturbance events, and for quantifying carbon stock loss within degradation dominant countries such as the Republic of Congo.

15-day composites from PlanetScope imagery acquired over the province of Punjab, Pakistan during the winter wheat growing season.



Landsat (top row, left to right) acquired on 28 February 2017, 7 May 2018, 8 June 2018, and 24 April 2019. Planet (bottom row, left to right) acquired 5 March 2018, 31 March 2018, 22 September 2018 and 24 January 2019 within the IFO concession, Sangha province, Republic of Congo. The image is from on 22 September 2018 was taken during peak logging activity and provides the highest contrast for identifying extraction zones.