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**MANAGING FORESTS PROACTIVELY
WITH SATELLITE IMAGERY**

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ON THE COVER: A managed forest in Hampshire, Tasmania, Australia • March 1, 2019

SHOWN HERE: Land use classification around the cacao plantation in Peru in September 2018 shows roads, forests, plantation and buildings, infrastructure space.





FORESTS IN THE 21st CENTURY

Forests cover over 30% of Earth's landmass today and are changing at a faster pace than ever before. Growing numbers of devastating natural disasters such as wildfires and flooding, as well as human-induced changes such as rapid deforestation and land use conversion, are irreversibly changing our planet. Now more than ever, access to the best data - spatial and temporal resolution and spectral bands - is crucial to responding, planning and executing sustainable forest management.



FORESTS AND SATELLITE TECHNOLOGY

Forest stakeholders have been using satellite imagery and remote sensing technology for decades. From pioneering use of public programmes such as Landsat and Sentinel to leveraging other data sources from UAVs, drones and LIDAR, today's foresters are experts in extracting value from geospatial data. As technological capabilities exponentially grow, companies such as Planet - downlinking 6 TB a day of 4-band data globally - are paving the way to a new era of data capture and insight.



PLANET'S IMAGERY



Frequent Coverage
Cloud-free pixels and
always recent data



Spectral Bands
RGB and NIR



Broad Coverage
Global forest
areas captured



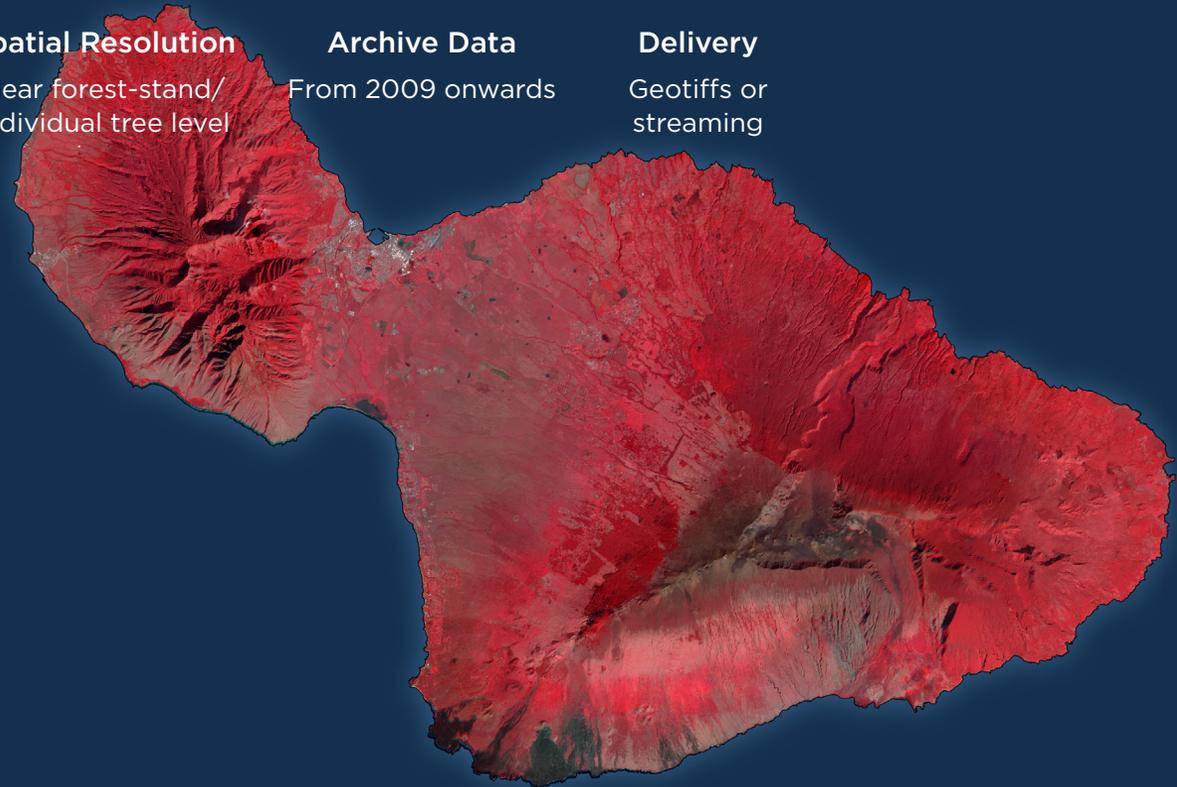
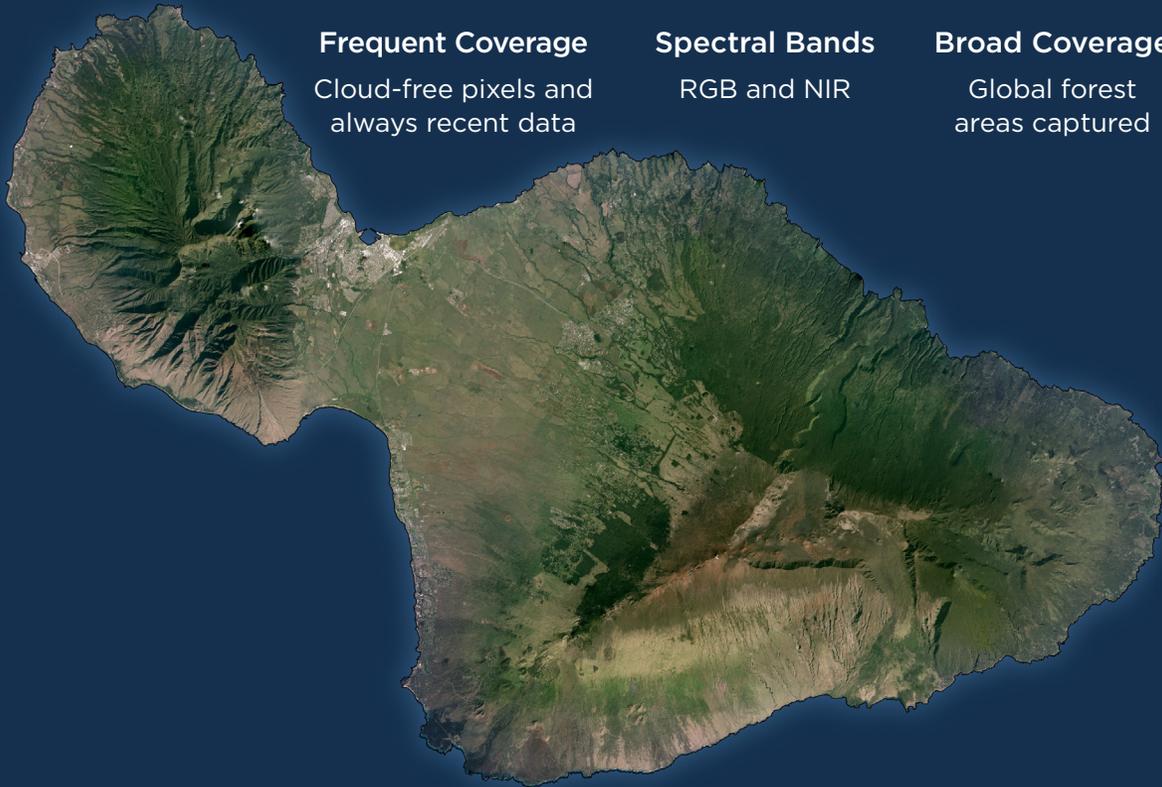
Spatial Resolution
Near forest-stand/
individual tree level



Archive Data
From 2009 onwards



Delivery
Geotiffs or
streaming

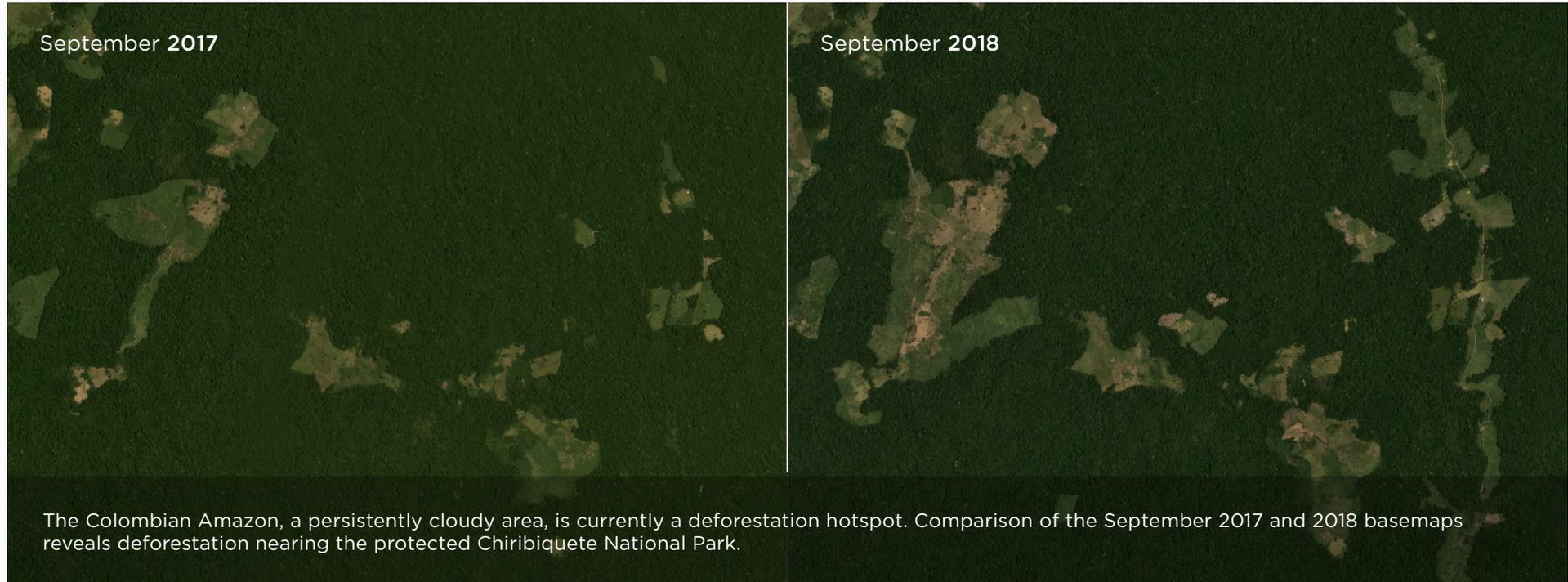


SHOWN HERE: Planet's Surface Reflectance Basemaps show vegetation patterns on Maui, Hawaii, Q1 2018.
Left: True color distinguishes varying land cover including forest, parks and agricultural land.
Right: False-color composite using R, G and NIR bands reveal subtle differences in forest health.



IMAGERY IN ACTION: **DEFORESTATION**

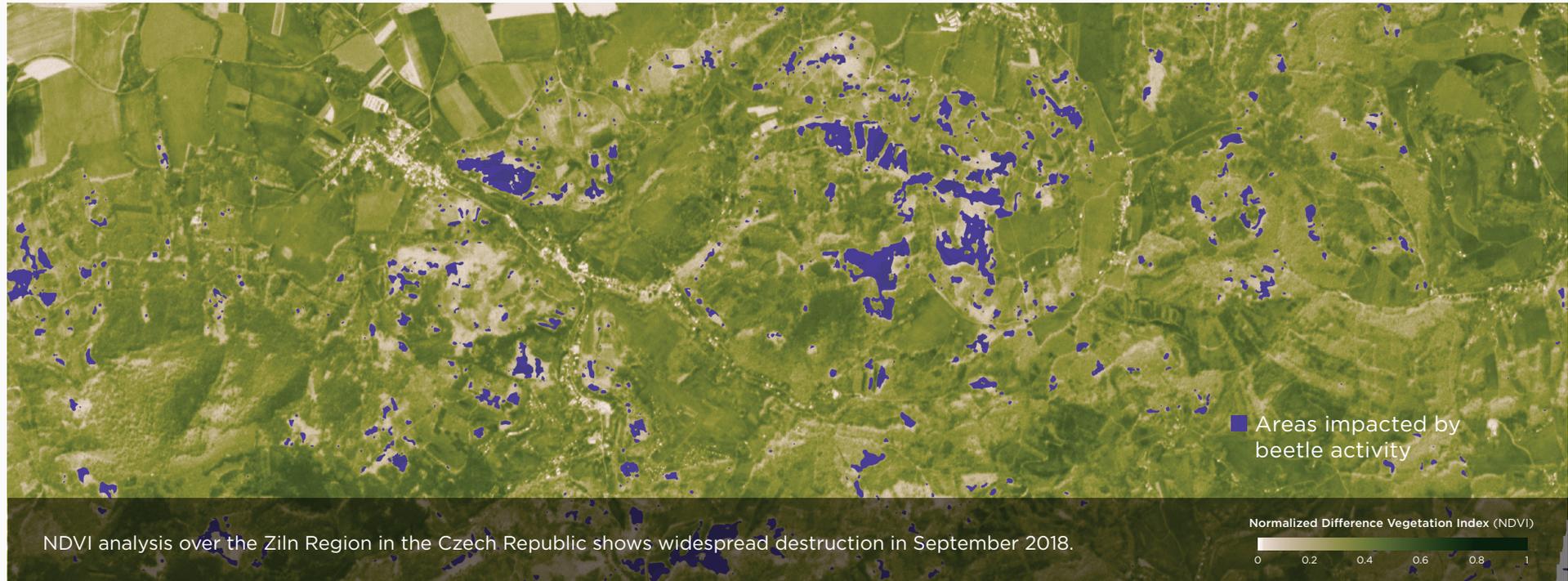
Quantifying and reporting large scale deforestation and change through REDD+ MRV or early warning deforestation alerts enable organizations to tackle this issue strategically. Unlike traditional satellite alternatives, Planet's high revisit enhances the chance of collecting a cloud-free view, permitting construction of high-quality basemaps especially during the brief dry season.





IMAGERY IN ACTION: **DISEASE MONITORING**

Forests across Europe and North America have recently been ravaged by unprecedented disease outbreaks, with hundreds of thousands of hectares devastated by fast spreading beetle or fungus epidemics. Planet's 4-band imagery and spatial resolution enables vegetation analysis to detect localized outbreaks early and often.





IMAGERY IN ACTION: **STORM DAMAGE**

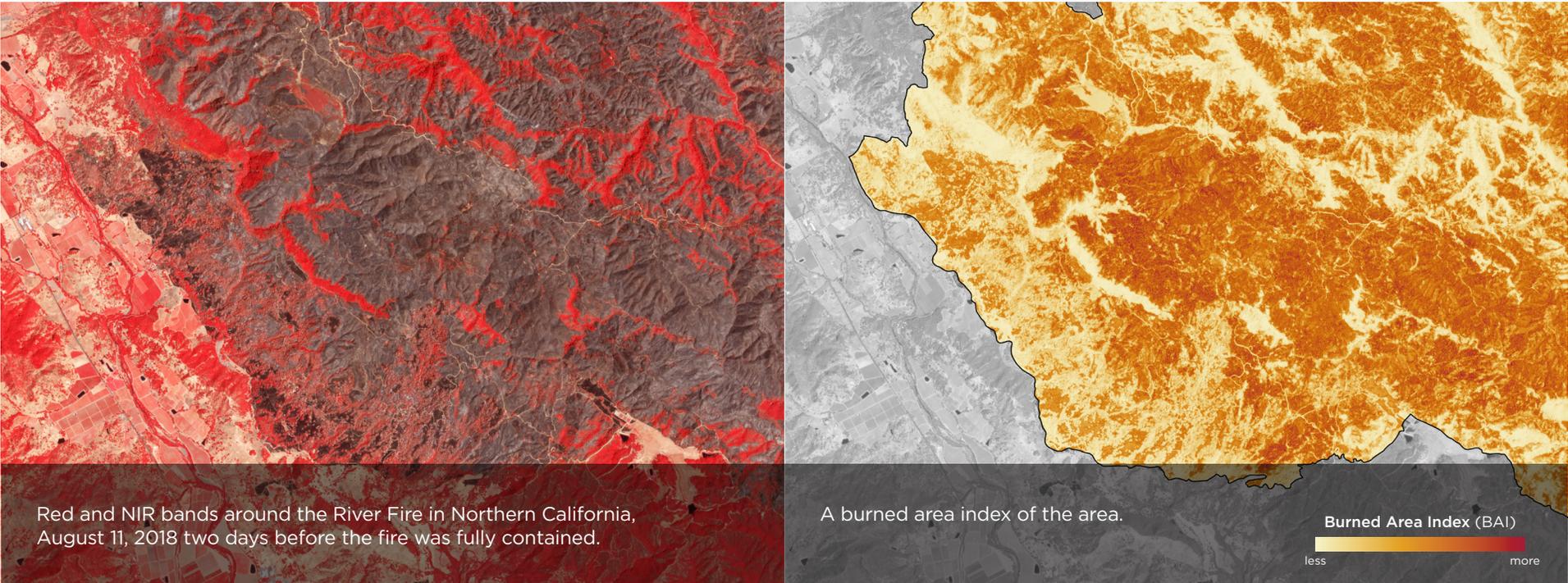
Overnight, storms can obliterate any object in their path, leaving a wake of flattened buildings and splintered trees. Immediate awareness, through low latency imagery, of impacted areas and potential risk of further damage allows forest managers - and emergency responders - to efficiently deploy their resources.





IMAGERY IN ACTION: **WILDFIRE MONITORING**

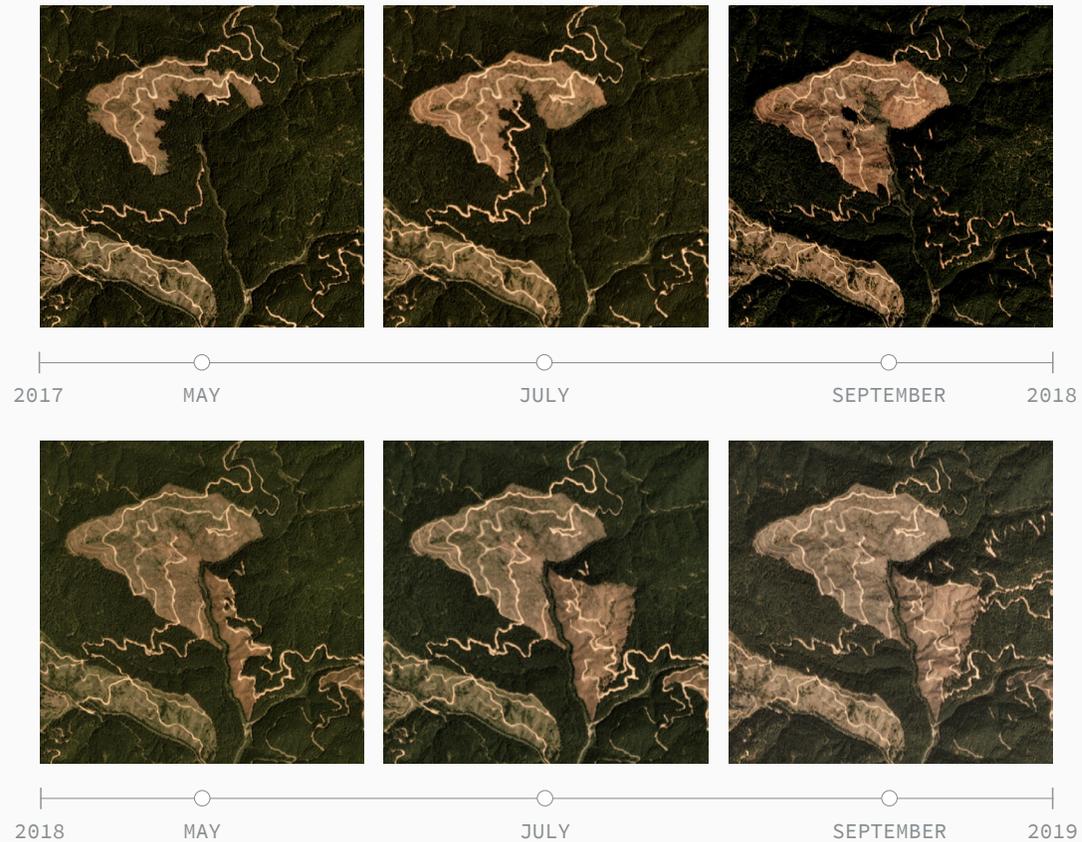
Swift knowledge of burn severity within a fire perimeter is imperative for disaster responders to efficiently deploy recovery resources and request emergency funding. Longer term, vegetation analyses, derived from Planet's calibrated visible and NIR imagery, enable comprehensive geospatial analysis to evaluate the impact of wildfire damage and mitigate future risk.





IMAGERY IN ACTION: **TIMBER HARVESTING**

Months and years of preparation go into the timber harvesting process. From cutblock location scouting pre-harvest to validating logging boundaries and replanting trees post-harvest. Forest managers and timber operators alike need consistent, regular and reliable data and tools to manage all the steps in the logging cycle.



The timelapse shows intricate and frequent timber harvesting on the slopes of Idaho over 2017 and 2018.



THE FUTURE OF FORESTRY

Users have the opportunity to get a headstart on utilising imagery to proactively improve their ROIs, safeguard their assets, and sustainably manage their growth. Planet's platform is uniquely positioned to transform this sector.

- High cadence delivery of high-resolution Planet imagery
- Spatially accurate, cloud-free and analysis-ready basemaps
- Deep stacks of global imagery for analytics and machine learning
- Fast and intuitive access via our GUI or API



Early detection of road infrastructure development, which precedes industrial-scale deforestation in Peru

SEE FOR YOURSELF LEARN MORE

Trial our Surface Reflectance Basemaps and learn how Planet can help you turn daily satellite data into actionable insights, visit:
planet.com/contact-sales



Learn More

Access the Planet's forest imagery and example use cases :
planet.com/markets/forestry

We're Here to Help

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