



Measuring Sustainable Sourcing through Satellite imagery



Lake Okeechobee, Florida, USA – July 1, 2016



Speakers



Brittany Zajic

Manager, Business Development, Planet

Focused on development of key partnerships and research of new markets



<https://www.linkedin.com/in/brittanyzajic/>



Jonathan Ong

Regional Sales Manager, APAC, Planet

Responsible for Planet's business in Indonesia, Malaysia, Vietnam, Myanmar and Pakistan



<https://www.linkedin.com/in/jonathanongji/>

Agenda today



- Planet overview
- The Sustainable Sourcing context
- Current challenges
- Satellite monitoring based solutions



About Planet

Planet is the leading provider of global, near-daily satellite imagery data and insights.

Founded in 2010 by three NASA scientists, Planet designs, builds, and operates the largest earth observation fleet of satellites, and provides the online software and tools needed to deliver data to users.

HQ in San Francisco. Offices in Berlin, Washington DC
To learn more, visit www.planet.com
For more imagery samples: www.planet.com/gallery
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Chablis, France • June 20, 2018





20+ employees in Asia-Pacific: Singapore, Australia, India, Malaysia, & Indonesia



Marketing



Channels



Sales



SDRs



Customer Success



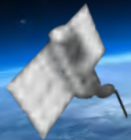
Technical Support



Professional Services



**You can't fix
what you can't see.**





We provide the solution

Planet images the whole world every day, making change **visible, accessible, and actionable.**



DEFENSE & INTELLIGENCE



EMERGENCY MANAGEMENT



FORESTRY



MAPPING



ENERGY & INFRASTRUCTURE



AGRICULTURE



CIVIL GOVERNMENT



INSURANCE



FINANCE & BUSINESS INTELLIGENCE



Sustainable sourcing is increasingly important



Managing risks,
compliance &
creating resiliency



Meeting
sustainability goals



Enhancing CSR
and brand value

**Greater supply chain transparency and traceability
enables multiple goals**

+ There is increasing pressure from multiple stakeholders...

In 2019, 60 investors with \$6+Trillion in AUM called on companies to disclose and eliminate deforestation risks in their supply chains.

BlackRock punishes 53 high-emissions companies over climate inaction, puts 191 more on watch

Investor Pressure

Bank of England to test climate risks at banks and insurers in 2021

Survey by Bain of 750 employees in 2013 across 6 countries showed that Two-Thirds said that sustainable business is extremely important to them

Consumer Demand

Nielsen research found that a company's commitment to sustainability can sway product purchases for 45% of consumers.

Negotiations start on global 'Paris-style' deal to avert Earth's sixth mass extinction

24 February 2020, smu.edu

National governments will meet in Rome this week to discuss and potentially adopt a 20-year life-cycle proposal to limit irreversible ecological damage, which looks yet to be formally adopted in October.

Regulatory Requirements: Current and forthcoming

Harvard Business Review
Sustainability
Sustainability Matters in the Battle for Talent
by Jeremy Davis-Peterson

2019-10-10 | WORLD CHANGING IDEAS
Most millennials would take a pay cut to work at an environmentally responsible company

Nearly 60% of millennial Gen Z respondents said they would take a pay cut to work at an environmentally responsible company. Less than a quarter of Gen X respondents said the same, and 17% of baby boomers.

Employee Demand



Growing demand for certifications like RSPO

“**RSPO certification** has enabled us to maintain existing business relationships that have started to demand this (RSPO) certification as an indispensable requirement for us to continue working with them.”

Andres Gomez Chavarriaga, Commercial manager for Uniban, first South American brand to adopt RSPO certification





In the US and EU, greater deforestation-related regulation likely to emerge over next several years



*Former U.S. Climate Leaders Press Biden
on Amazon Deforestation*



Court Slams Ban On Dutch Company
Over Dubious Timber Importation
Swedish Court Ruling Stokes Concerns
Over Impact on Burma Teak Exports
First UK company fined for breach
of EU Timber Regulation
Major Dutch timber company found
guilty of dealing in illegal teak
Austrian timber giant ransacking
Romania's forests

Sample of
headlines related
to EU Timber
Regulation



Including regulations locally...



Malaysia

National Policy on Biological Diversity has a target for 20% of the country's land surface and inland waters to be conserved as protected areas or managed using other effective area-based conservation measures by 2025



Indonesia

By 2025, smallholder farms also need to adhere to Indonesia Sustainable Palm Oil regulation



Thailand

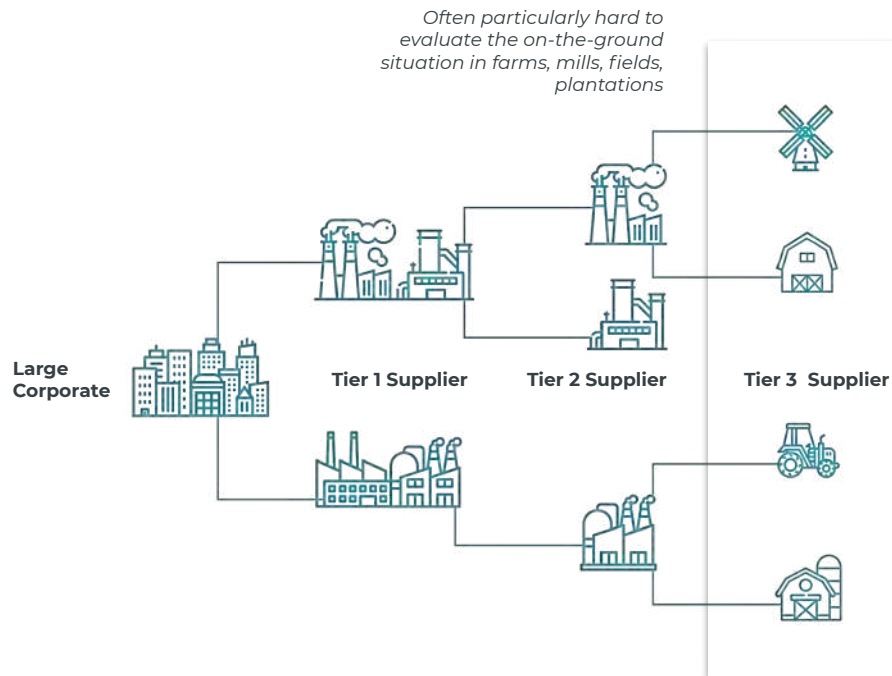
Training over 3,000 oil palm smallholders in sustainable practices, as well as goal to reduce 9,600 tonnes of greenhouse gas emissions from oil palm cultivation and cut production costs by 20%, within 2022



Currently, many companies lose traceability and transparency going back into their supply chains

Common pain points

- Many “indirect” suppliers, possibly dispersed over large areas
- Remote, hard-to-access areas: can be hard to get boots on the ground
- Change may occur rapidly and may be missed by infrequent in-person audits
- Reported data may be biased: incentives may be misaligned to tell the truth
- Data on supplier relationships may be missing





Lack of traceability and transparency has many negative business consequences and carries significant business risk

Consumer Demand	Lower growth, Loss of market share, Inability to charge a premium, Boycotting by consumers
Regulatory requirements	Risk of fines, citations, bans, embargoes
Employee Demand	Access to smaller talent pool, talent retention issues
Investor Pressure	Risk of divestment, harder to secure funding, more expensive funding



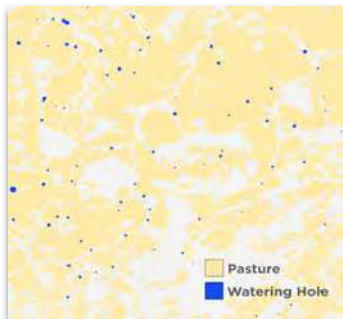
Solutions



Satellite data can be used to monitor remote, broad areas -- those where deforestation risk is highest

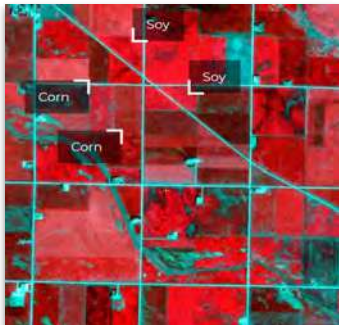
2/3 of tropical deforestation occurs due to “big four” commodities:

Cattle



Cattle watering holes are often an early sign that more land clearing for cattle will happen

Soy



Crop classification for soy and corn can be done on PlanetScope data based on spectral reflectance

Palm



Achi Jaya Palm Oil plantation, Malaysia - a supplier of General Mills as seen Oct 31st 2020 capture by PlanetScope

Timber & Pulp



SkySat is tasked to collect higher-res imagery over an area where roads are seen being built in Planetscope

AMAZON DEFORESTATION

May 2017—Sep 2020



American Football Field



0.5 mi



0.5 km

JUN 11



2017

2018

2019

2020



SUMATRA

FOREST TO PALM OIL CONVERSION, JULY 2017





SUMATRA

FOREST TO PALM OIL CONVERSION, JULY 2018

Deforestation

Deforestation

Deforestation

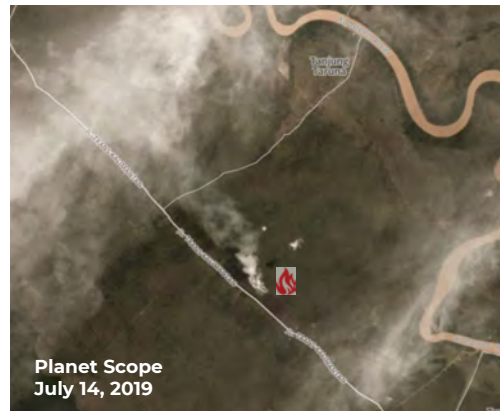




Fire Monitoring

Palangka Raya,
Central Kalimantan

Forest fire detected in
PlanetScope imagery from
July 14 - August 12, 2019





Fire Monitoring

Palangka Raya,
Central Kalimantan

Ability to monitor the
progress of the fire -
broad area situational
awareness greatly
enhanced -> better
emergency response

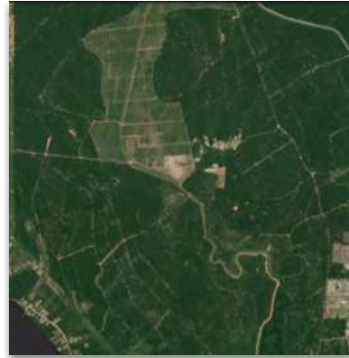


Wind Direction

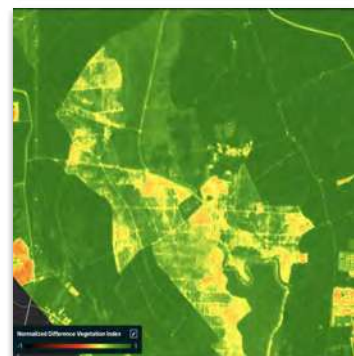




Planting Progress Monitoring in Peninsular Malaysia



RGB Visual



NDVI

May 2019

July 2019

October 2019

December 2019





This is particularly important in areas of tropical rainforest which tend to be very cloudy

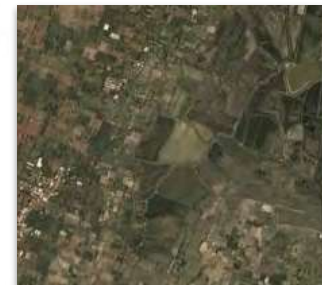
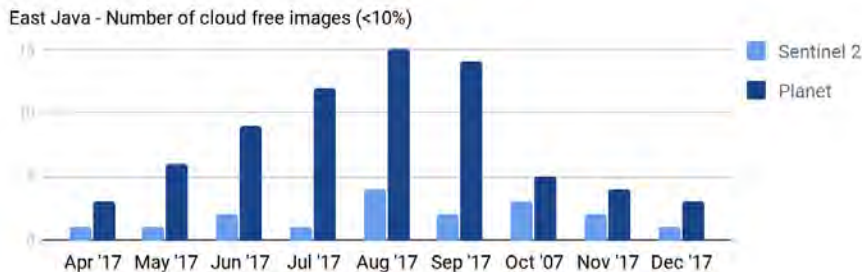
Probability of cloud cover in Indonesia based on averages over last 14 years



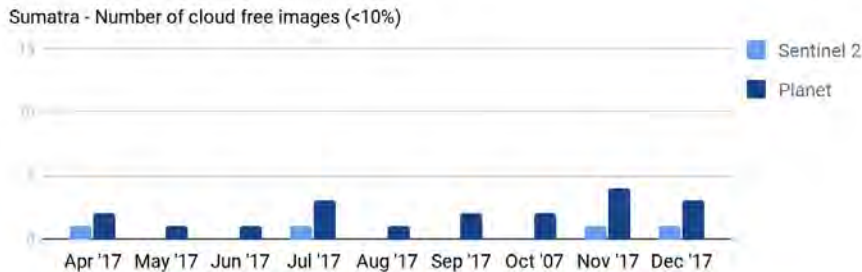


Our cadence means we have up to 5x more image availability in several key areas

East Java



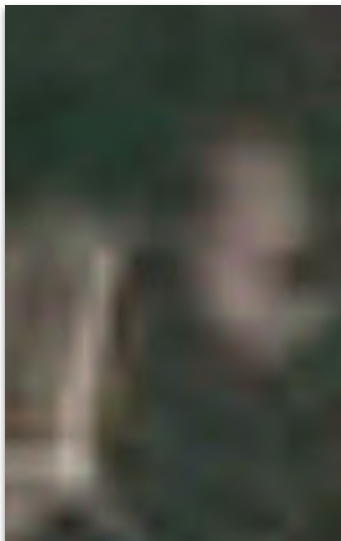
Sumatra





Planet also has higher resolution than other data sources

From



NASA: Landsat-8 (30 m)



European Space Agency:
Sentinel-2
(10 m)

To



PlanetScope (~3.7 m)



SkySat (~72 cm) -- and
now down to ~50 cm

Greater accuracy for assessing deforestation, tree disease, harvesting activities



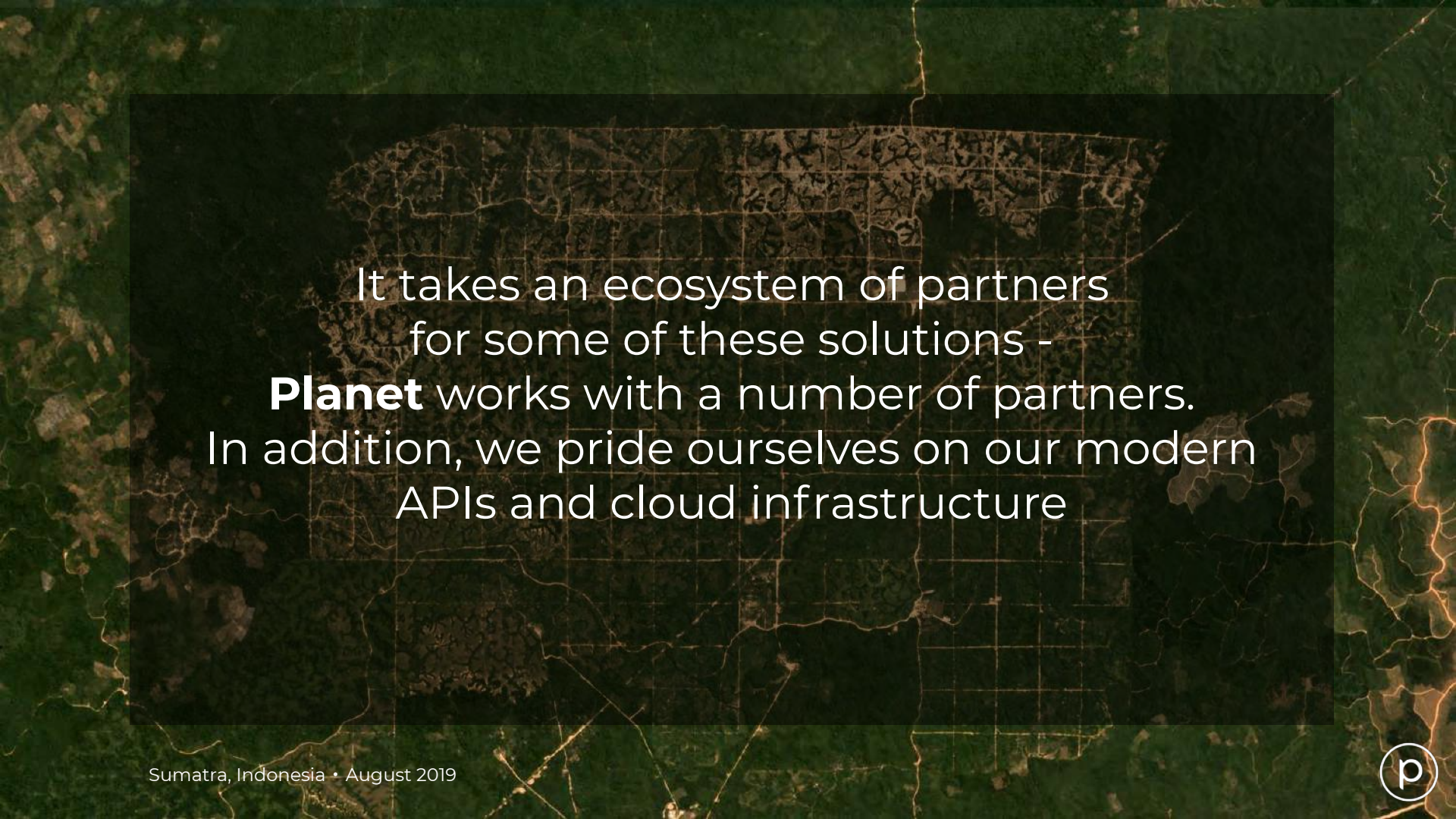


Planet data complements GLAD and RADD alerts with validation through higher resolution imagery



Global Land Analysis & Discovery (GLAD) Alerts



A satellite image of Sumatra, Indonesia, showing a grid overlay. The text is centered on the map.

It takes an ecosystem of partners
for some of these solutions -
Planet works with a number of partners.
In addition, we pride ourselves on our modern
APIs and cloud infrastructure



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& Sustainable Growth with High-Resolution
Satellite Imagery**

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Top 5 Misconceptions About Satellite Imagery for Agriculture



From the early days of Landsat to present-day commercial providers, agriculture has been one of the largest adopters of satellite imagery. By partnering with leading agricultural companies over the years, we've gained a window into the day-to-day challenges, concerns, and opportunities that growers have across the globe.

Planet's vision is to deliver precise and reliable field-level crop information to help agriculture companies and their growers optimize inputs, monitor crop health, and improve yield.

We've gathered the top misconceptions about using satellite imagery for agriculture.

Thank you!

Reach out to our team:

sales@planet.com

For more information, you may find us here:



Official Website



@planet-labs

