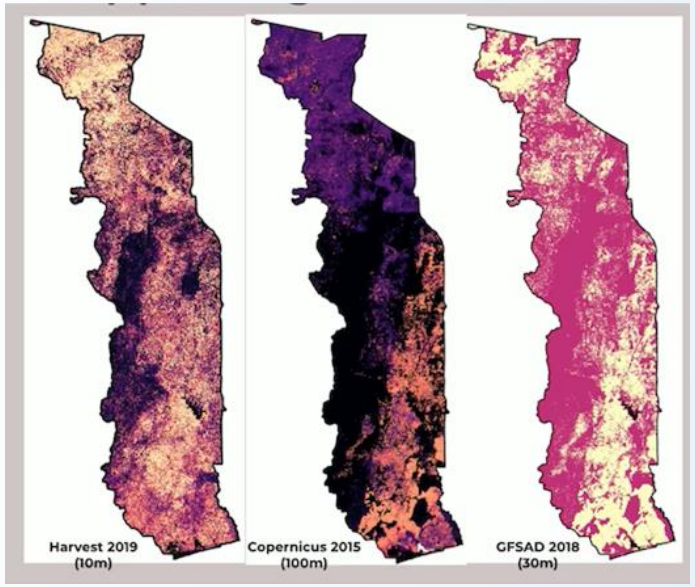
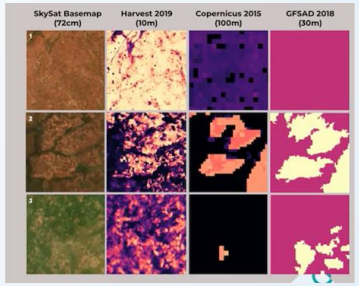
EO services contributing to SDGs
High resolution crop mapping for smallholder farms

- **User:** NASA Harvest and its consortium of scientists and agricultural stakeholders.
- **Challenge/Needs:** NASA Harvest was working with the Togolese government to support a program called Yolim, a digital and interest-free loan program intended to improve yields and livelihoods of Togolese farmers by funding farmer essentials via digital wallets to increase production during the COVID-19 pandemic. The census occupation data they would normally use to locate their farmers, who are underrepresented smallholder farmers, were not high resolution and were often outdated. This led to a need for a spatial map of where crops were growing as a proxy for where the smallholder farmers lived.
- **Initiative:** NASA Harvest worked with Planet to get a 2019 basemap of SkySat images at 72 centimeter per pixel resolution and combine this with the PlanetScope quarterly base map to see the seasonality of agriculture. This enabled NASA harvest to create a high resolution crop map of Togo to support the Yolan program using satellite data and machine learning to create these crop and non-crop labels from these images instead of a ground survey.
- **Results:** The government was able to use this map to support their Yolan program and locate smallholder farms in the region.
- **Service Provider:** Planet

Target 2.4: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.



Rapid Response Crop Maps during COVID-19



https://www.planet.com/pulse/nasa-harvest-event-encourages-collaboration-for-a-sustainable-future/

https://nasaharvest.org/

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