

LCLUC PROGRAM: WRAPUP

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DATA ASPECTS

- NASA LCLUC program expects its PIs to make their data and products available to the community for free and **open access**

NASA Commercial Smallsat Data Acquisition (CSDA)

- Limited Planet datasets are available for free at Universities
- Wall-to-wall VHR data over tropics purchased by the government of Norway (to tackle tropical deforestation)
- Special Issue in Remote Sensing (2020) on applications of VHR data in LCLUC studies based on the VHR Pilot Pilot project (2018)**

LCLUC PIs must provide metadata on data products generated under NASA-funded projects

Metadata

Displaying 1 - 35 of 35

Search by Keywords

| Metadata Title | Project name | Team | Institution | Project Start Date | Project End Date |
|---|---|--|---------------------------|--------------------|------------------|
| Land-Use Status, Change and Impacts in Vietnam/Cambodia/Laos | Land Use Status, Change and Impacts in Vietnam, Cambodia and Laos | Son Nghiem, Andrea Gaughan Forrest Stevens | Jet Propulsion Laboratory | 05/01/2018 | 12/31/2021 |
| Understanding the Role of Land Cover/Land Use Nexus in Malaria Transmission Under Changing Socio-Economic Climate in Myanmar | Understanding the Role of Land Cover/Land Use Nexus in Malaria Transmission Under Changing Socio-Economic Climate in Myanmar | Tatiana Loboda, Mark Carroll Julie Silva Myaing Nyunt Christopher Plowe Kathleen Stewart | University of Maryland | 05/01/2017 | 03/01/2020 |
| Complex Forest Landscapes and Sociopolitical Drivers of Deforestation - The Interplay of Land-use Policies, Armed Conflict, and Human Displacement in Myanmar | Complex Forest Landscapes and Sociopolitical Drivers of Deforestation - The Interplay of Land-use Policies, Armed Conflict, and Human Displacement in Myanmar | Peter Leimgruber, Qiongyu Huang Melissa Songer Joseph Sexton Min Feng Saurabh Channan Enze Han Kevin Woods | Smithsonian Institution | 05/01/2017 | 05/01/2020 |

Commercial Smallsat Data Acquisition (CSDA) Program Update

The commercial data currently distributed by NASA are available under different scientific use licenses and various access portals. The Commercial Smallsat Data Acquisition (CSDA) program evaluates and procures data from commercial vendors that advance NASA's Earth science research and applications activities. Currently, data acquired during the evaluations of Planet, Maxar (formerly DigitalGlobe, Inc.), and Spire Global are available. Data from the Teledyne Brown Engineering, Inc., DLR Earth Sensing Imaging Spectrometer (DESI) also are available through a separate collaboration with the International Space Station (ISS).

More Info: <https://earthdata.nasa.gov/esds/csdap/commercial-datasets>

PDF file:

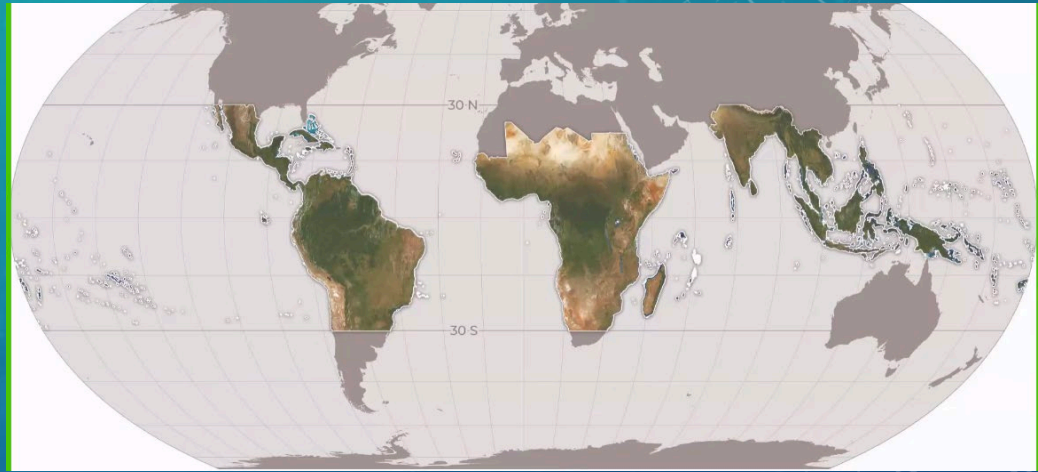
 CSDA_ROSES_data_access_overview[1].pdf

LCLUC metadata page

- Very High-Resolution (VHR) data for NASA-affiliated scientists

VHR DATA AVAILABILITY: THE GOOD NEWS

- Norway's International Climate and Forest Initiative (NICFI) 30°N-30°S mosaics (<5m) based on **Planet** data
 - Monthly mosaics: Sep 2000- end of 2024
 - Bi-annual mosaics: Dec 2015 – Aug 2020
- Access: www.planet.com/nicfi
- **Bezos Earth Fund announced a new partnership with NICFI to continue providing the world with free access to high-resolution satellite data** to support efforts to stop the destruction of the world's rainforests.



The partnership adds to the USD 43 million previously granted by NICFI to establish the NICFI Satellite Data programme and complements the Bezos Earth Fund's **investments in protecting tropical forests and enhancing data, monitoring and accountability.**

Global Forest Watch Project <https://www.globalforestwatch.org>

FOREIGN PARTICIPATION ISSUES

- *“I am the grant officer assigned to the above award. During my review, I noted that there is foreign involvement for Fieldwork in Thailand and India. Please see the below information from the NASA GCAM regarding Proposals Involving Non-U.S. Organizations”*
- *“Can XXX University please confirm whether this foreign involvement includes actively participating in the research or is this a direct purchase of supplies and/or services?”*

5.4 Proposals Involving Non-U.S. Organizations

Per 2 CFR § 1800.3(c), NASA does not normally fund foreign research proposals from foreign organizations, nor research efforts by individuals at foreign organizations as part of U.S. research proposals. This includes subawards from U.S. organizations to investigators at foreign organizations and travel by individuals at foreign organizations to conduct research, fieldwork, and present at conferences. Rather, each country agrees to bear the cost of discharging their respective responsibilities (i.e., the work to be done by team members affiliated with organizations in their country). *The direct purchase of supplies and/or services, which do not constitute research, from non-U.S. sources by U.S. award recipients is permitted.*

EDUCATION AND OUTREACH



Use NASA LCLUC logo, not just NASA

- LCLUC website
- E-Newsletters
- Webinars

The Program needs

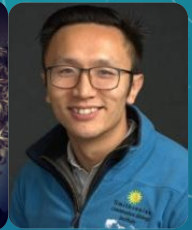
- One-pagers showcasing the project (Land Use to Action template)
- Statistics on grad. students
- Publications
- Media
- Project info for the Mapper

Meghavi is the POC for all the info (cc Chris, Krishna and me)

Upcoming Webinars



Untangling the Interactions Between Rural Outmigration, Grassland Degradation, and Sustainable Land Use in Mongolia



Multi-sensor Mapping of Refugee Agricultural LCLUC Hotspots in Uganda



Land-cover and Land-use Change at the Frontier: Socioeconomic and Environmental Factors Influencing Land-Use Transitions in the Cerrado Biome



Disentangling Land-Use Change in Central Africa to Understand the Role of Local and Indigenous Communities in Forest Restoration and Conservation

Modulation of Climate Risks by Intensification of Urban and Agricultural Land Uses in the Arabian Peninsula



Land Cover Land Use Change, Conflict, and Peacebuilding in Colombia



HOTSPOTS OF LAND USE



Indrani Kommareddy
Formerly
LCLUC Program



Meghavi Prashnani
LCLUC Program



Rohan Purekar
LCLUC Program

- Urban
- Savanna
- Agriculture
- Forest
- Wetland
- Extractive Industry / Mining
- Fire



NASA Earth Sciences Research Results Portal

- Researchers feel their **results are going unnoticed** by leadership and communication teams
- Leadership finds it **challenging to use research examples** for their presentations, reports, meetings, etc.
- Communications and outreach teams are **constantly searching for content**



- NASA Earth Sciences created the **Research Results Portal**
<https://esdresearch.nasa.gov>
- **We invite** all NASA center civil servants, contractors and Earth Sciences funded PIs **to share their results with ESD Leadership** via the Communications team by **creating an entry in the Portal**

For more information, contact Megan McGroddy (megan.e.mcgroddy@nasa.gov)

ANIMALS AND LAND COVER/LAND USE CHANGE: A REMOTE SENSING – GALAPAGOS ISLANDS ASSESSMENT

Stephen J. Walsh^a, Francisco Lasob^b, and Madeline Giefer^c

- In the forthcoming 2nd edition of *Comprehensive Remote Sensing*:

An invited chapter in the LCLUC Applications volume (Walsh et al. 2024)



FORTHCOMING MEETINGS IN 2024

Thanks to our loyal supporter for meetings and trainings: START Inc.!

- LCLUC Synthesis in South Asia – early **April**, Haryana, India
- GOFC-GOLD SCERIN-MedRIN joint workshop and TAT training – **mid-July**, Chania (Crete), Greece (right after IGARSS in Athens)
- Space Week Nordeste - **mid-September**, São Luís-Maranhão , NE Brazil.
- AGU (in Dec in **Washington DC!**) call for sessions proposals **due Apr 24**
- **Global Land Program Open Science Meeting GLPOSM) in collaboration with LCLUC (regional international workshop) – early November, Oaxaca, Mexico**
 - **Abstract Submissions has CLOSED, and we are now reviewing the more than 600 submissions we received. Thank you to all who have submitted. Our Science Committee will be reviewing abstracts in the coming weeks and notifications of acceptance will go out on or around 20 April.**
- **ISPRS symposium – early November, Belem, Brazil**
EXACT OVERLAP WITH GLPOSM <https://selperbrasil.org.br/events/belem-2024-tc3-symposium/>

ONGOING LATIN AMERICA PROJECTS

| Principal Investigator | Project Name | Start Date | End Date |
|---------------------------|---|------------|------------|
| Grant Connette | Can Improved Stakeholder Representation Prevent Human-Caused Mangrove Loss in the Mesoamerican Reef Ecoregion? | 04/01/2023 | 03/31/2026 |
| Nicholas Magliocca | Making the Hidden Visible: Accelerated Land-Use Change and Degradation Caused by Narco-Trafficking In and Around Central America's Protected Areas | 01/01/2021 | 12/31/2024 |
| Nicholas Cuba | Evaluating the drivers of international migration from the Northern Triangle of Central America and its implications for land systems in the region | 01/01/2021 | 12/31/2024 |
| Michael Keller | Tropical Forest Degradation and Regeneration in the Brazilian Amazon: Thermal Remote Sensing Integrated into a Multi-Source Land Imaging Approach | 01/01/2024 | 12/31/2027 |
| Robert Gilmore Pontius Jr | Irrigation as climate-change adaptation in the Cerrado biome of Brazil evaluated with new quantitative methods, socio-economic analysis, and scenario models | 05/15/2023 | 05/14/2026 |
| Gillian Galford | Land-cover and Land-use Change at the Frontier: Socioeconomic and Environmental Factors Influencing Land-Use Transitions in the Cerrado Biome | 02/01/2023 | 01/31/2026 |
| McKenzie F. Johnson | Land Cover Land Use Change, Conflict, and Peacebuilding in Colombia | 02/01/2022 | 01/31/2025 |
| Carlos Munoz Brenes | Impacts of Global Markets and National Policies on Forest Carbon Trajectories and Social Outcomes in the Guiana Shield Ecoregion | 06/01/2021 | 05/31/2024 |
| Robert Heilmayr | Mapping property values to understand land-use change in South America | 01/01/2021 | 12/31/2024 |
| Christoph Nolte | Comparing the effectiveness of conservation instruments in the Colombian Andes biodiversity hotspot | 01/01/2021 | 12/31/2024 |
| David A. Lutz | Rapid Change from Alluvial Mining and Development in Madre de Dios, Peru: A Multi-Sensor Fusion Approach to Quantify Terrestrial and Aquatic Impacts and Test Policy Effectiveness | 01/01/2021 | 12/31/2024 |
| <u>Meha Jain</u> | <u>Policy, Market, and Climate Change Impacts on Maize Production in Mexico</u> | 01/01/2021 | 01/01/2024 |
| <u>Xiao-Peng Song</u> | <u>Soybean Expansion in South America: Quantifying Historical Land-Use Change, Modeling Socioeconomic Drivers and Projecting Future Trajectories</u> | 01/01/2021 | 12/31/2023 |
| Juan Torres-Perez | Watersheds, Water Quality, and Coastal Communities in Puerto Rico (Water2Coasts): An interdisciplinary island landscape to coastal ocean assessment with socioeconomic implications | | |

LCLUC SCIENCE TEAM MEETINGS

2000



2006

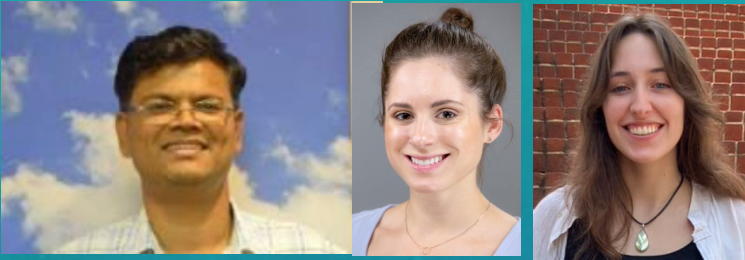


2024



THANKS AGAIN!

Organizers: C. J. and Co.



Krishna Mary Melanie



Marriott hotel for hosting and catering!

Our major, loyal sponsor!



Meghavi Prashnani 2023 Recipient of the Award for 10+ years dedication to Earth Observation