

GOFC-GOLD

Global Observation of Forest and Land-use Dynamics



GOFC-GOLD Regional Networks

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Global Observation of Forest and Land-use Dynamics



Program Focus on:

- Coordination of Space-borne and In-Situ Measurement of Land cover change and Fire
- Developing Science and Applications Observation Requirements and Technical Specifications
- Derived Data / Information Products & Standards
 - Inc. Validation Protocols
- Provide Assistance for Improved Data Access and Utilization through Regional Science Networks (with the START Program) – trainings
- Improve Communication between Science and Decision Makers
- Coordination with other related programs

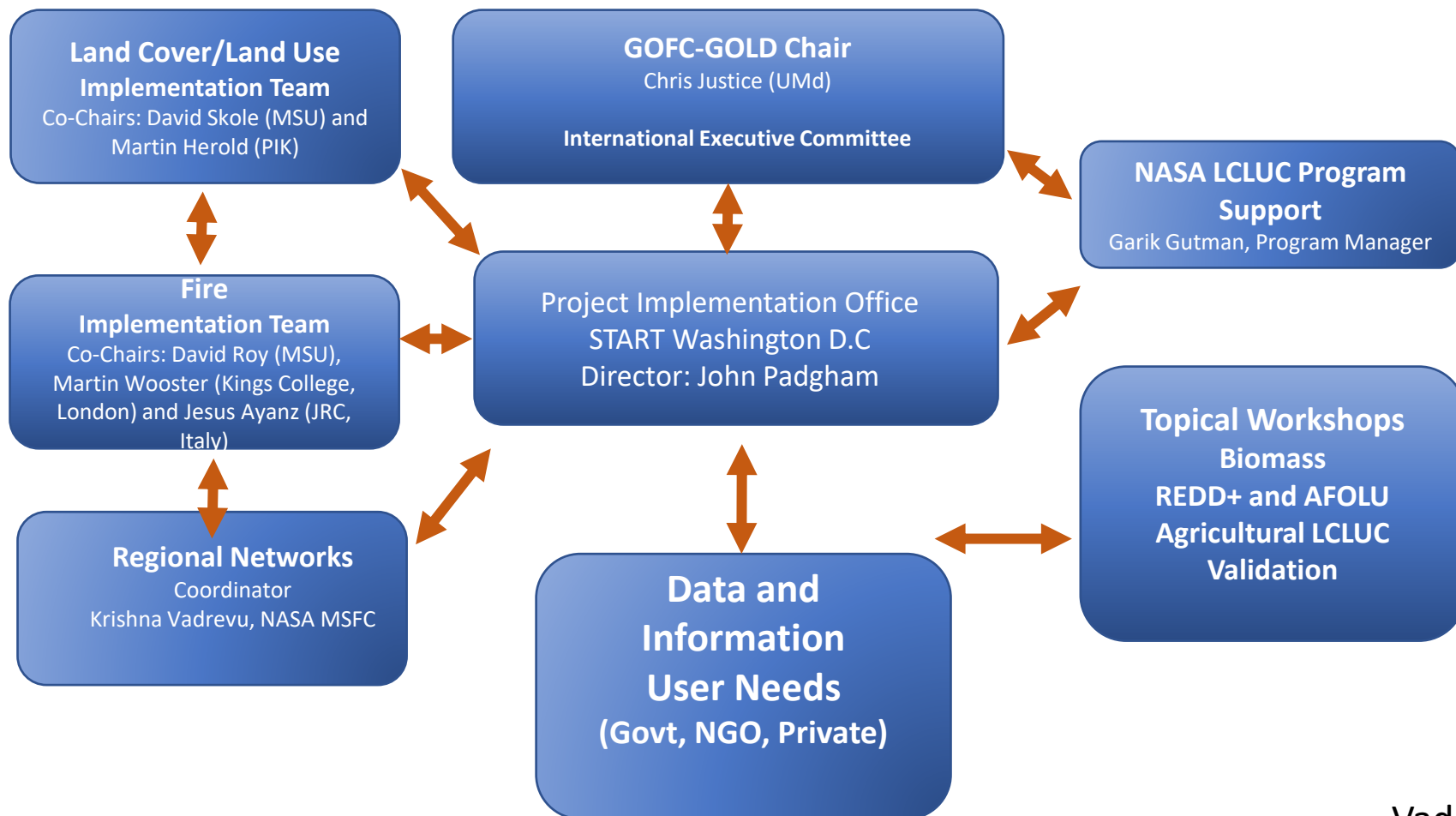
Three Major Areas:

- Regional Networks
- Land Cover / Change
- Fire / Biomass Burning



Global Observations of Forest Cover and Land Use Dynamics (GOFC-GOLD) Program Structure

www.gofcgold.org



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Global Observation of Forest and Land-use Dynamics

Recent Trends and Current Priorities for GOFC GOLD

Increased availability of EO data, tools & services (cloud computing)

- Need for objective advice and technical training on data access and use

Proliferation of EO-based products

- Need for guidance on Product Inter-comparison and Validation to objectively assess utility for national use (w. CEOS LPV)

National commitments for which EO data are relevant (Multi-lateral Conventions, IPCC, REDD+, SDGs)

- Technical support for meeting national needs
- Technical support for AFoLU, expanding its technical basis from EO

Insufficient technical capacity at the national level

- Workshops and Training, On-line Webinars courses, Visiting Practitioners

Lack of coordination between international programs

- Forum for coordination at the technical level addressing NRM issues

Growing Demand for Support at the National and Regional Level

- Maintaining a global suite of regional networks – regular workshops

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An international forum for coordination concerning land cover observations

- Develop and promote community consensus guidance/standards (i.e. harmonization, validation, REDD+ Carbon measurement and monitoring, nature based solutions)
- Coordinate Land Cover input to the GCOS TOPC (ECV's)
- Lead the R&D component of Global Forest Observations Initiative (GFOI)
- Outreach and support capacity development (i.e. regional networks, World Bank training materials)
- Recent Attention to trees outside of forests and natural climate solutions.

Land Cover Characteristics and Change



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An international forum for coordination concerning fire observations

Fire Mapping and Monitoring

- **Elevate importance of Fire to the Space Agencies**
 - refine & articulate International requirements for fire-related observations – GCOS ECV's
 - define optimal fire monitoring system of systems
 - define fire product characterization & accuracy requirements - CEOS LPV
 - promote long-term satellite data continuity
 - promote open data policies & need for data/product reprocessing
- **Advocate for, and help develop, enhanced use of fire products and fire information portals for the current and future polar and geostationary data streams**

<https://gofcgold.org/gofcgold-fire-implementation-team>

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Global Observation of Forest and Land-use Dynamics

An international forum for coordination concerning fire observations

Fire Mapping and Monitoring

Guide the community on Fire product capabilities and outreach

- known data and product limitations, with examples
- best practices, e.g. for validation, REDD+ fire, fire reporting in the media
- community briefings on current status of systems and products

Support the GOFC-GOLD Regional Networks to

- bring together fire product providers and users
- stimulate lateral exchange of information on capabilities and needs
- provide technical guidance on the use of new products
- provide a means for strengthening regional and in particular national related fire activities

Support fire / resource management, policy decision-making and global change research

<https://gofcgold.org/gofcgold-fire-implementation-team>

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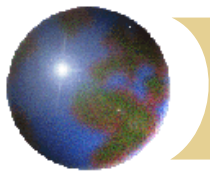


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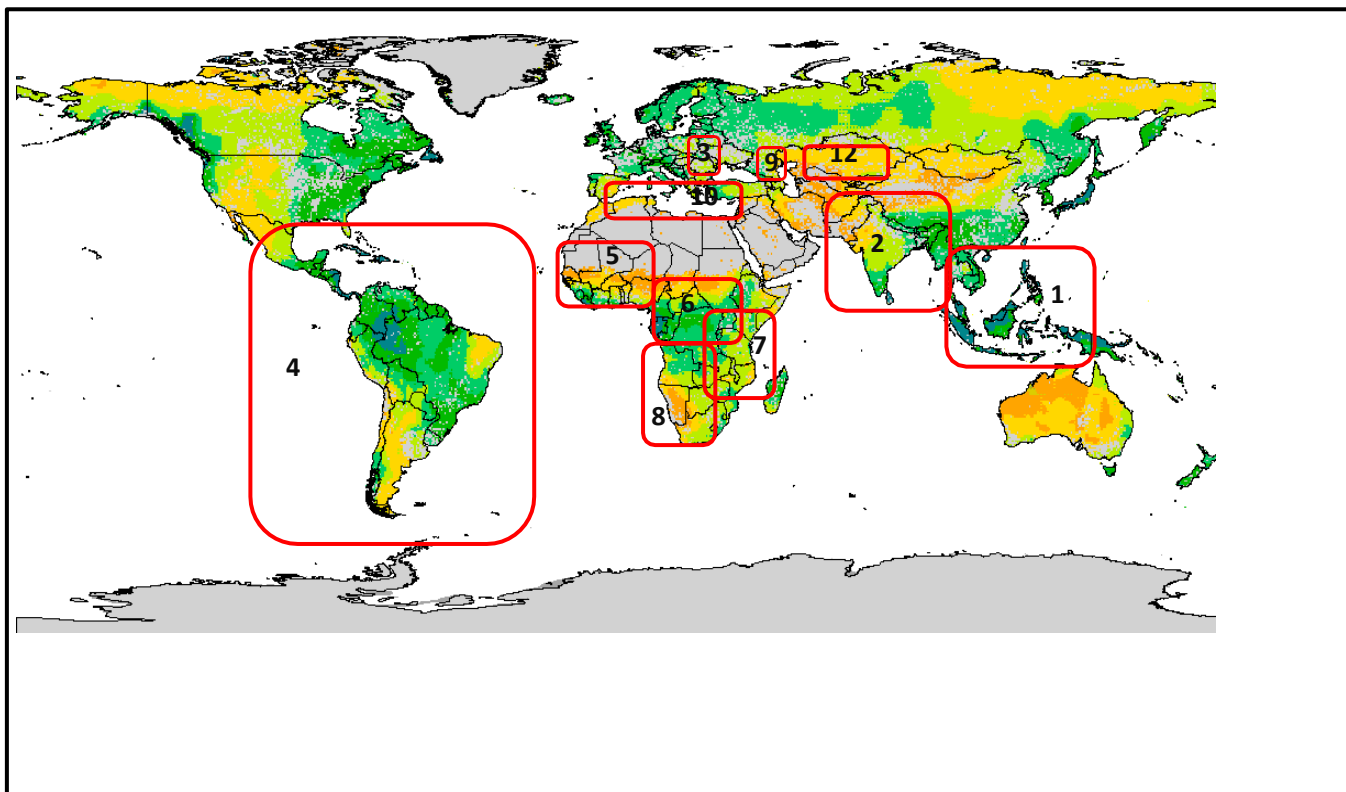
A forum for technical interaction between international and regional scientists, data providers and users

Regional Science Networks

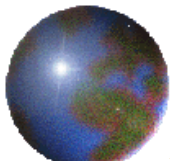
- **Share within-region project developments and methods**
- **Identify and articulate regional/national data needs**
- **Strengthen involvement of local scientists for improved calibration and validation of satellite products for national use.**
- **Technical information exchange on data availability / use.**
- **Improve and extend outreach activities through international collaborations**
- **Enhance Regional Capacity: Projects Training Sessions and Webinars**
- **Coordination with international programs**
- **Catalyst for regional projects / initiatives (e.g. w. GEO)**



GOFC-GOLD Regional Networks



Currently active GOFC-GOLD regional networks. 1. Southeast Asia Regional Research and Information Network (SEARRIN); 2. South Asia Regional Information Network (SARIN); 3. South Central European Regional International Network (SCERIN); 4. Red Latinoamerica de Teledeteccion e Incendios Forestales (RedLaTIF); 5. West African Regional Network (WARN); 6. Observatoire Satellital des Forets d'Afrique Central (OSFAC); 7. Miombo Network (MIOMBO); 8. Southern Africa Fire Network (SAFNET); 9. Caucasus Regional Information Network (CaucRIN); 10. Mediterranean Regional Network (MedRIN); 11. Central Asia Regional Information Network (CARIN)



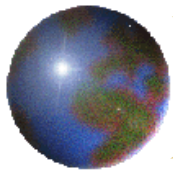
Workshop in Central Asia Directed at Forming a Regional Network

Urumqi, Xinjiang, China, Sep 2007



- Thematic workshops to identify regional priorities
- Invite regional and neighboring country partners to the meeting
- Discuss and debate the priorities for the region
- Identify Champions who can lead a network
- Network of Leads and Researchers from different countries
- GOFCC endorsement

International Regional Meeting on Dryland Processes in Central Asia Under the auspices of the International Geosphere-Biosphere



International Meeting on Land Cover/Land Use Change (LCLUC) in South/Southeast Asia and Synthesis Hanoi, Vietnam 01/31/2024 - 02/02/2024



Local Host

Vietnam National Space Center (VNSC)
Hanoi, Vietnam

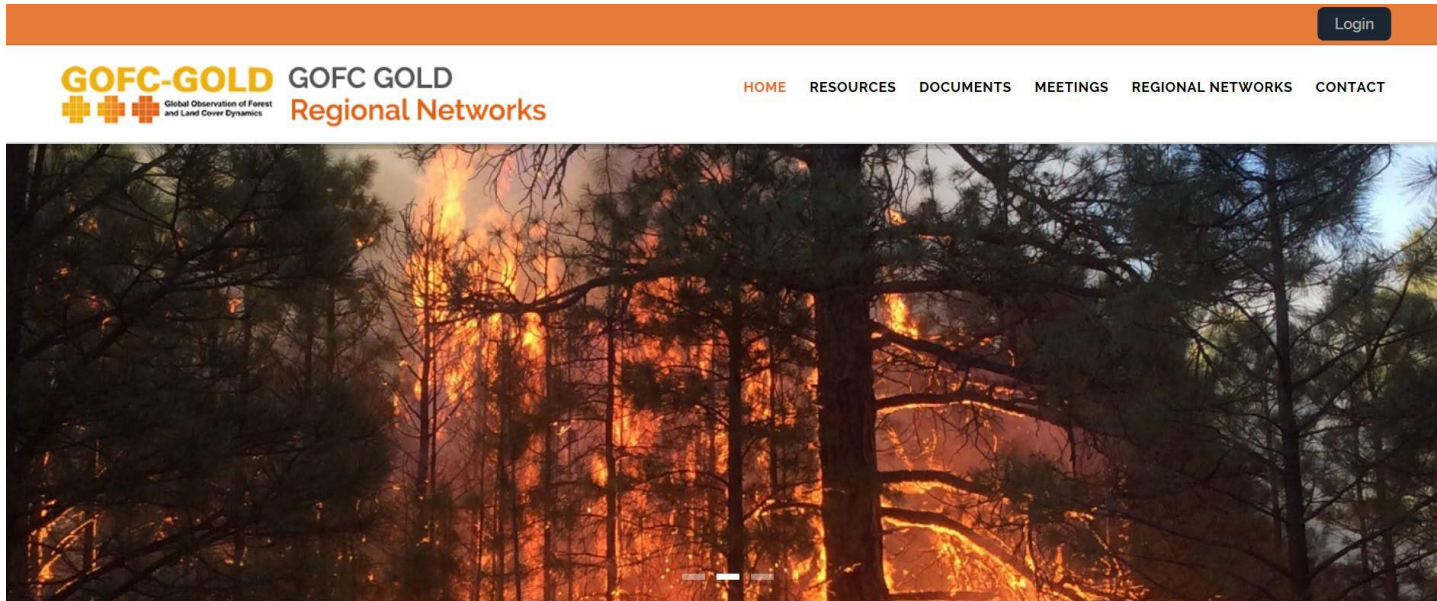


80-participants; 3-day meeting + 2-day training events

- Day-1 – Space Agency and Programmatic Presentations
- Day-2 – LCLUC, Forestry and Agriculture
- Day-3 – Air Pollution and Land Atmospheric Interactions

Training Workshop on Fundamentals of Remote Sensing and Applications – Open Source Tools.

Early Career Researchers: ~60 people attended



GOFC-GOLD Website

<https://gofcgold.org/>

Typical GOFC Regional Network Page – Access Given to Leads To Update their GOFC Network Activities Directly

Regional Networks

- South East Asia Regional Research and Information Network (SEARRIN)
- South Asia GOFC Network (SAGCN)
- South Central European Regional Information Network (SCERIN)
- Brazil Latinamericana de Tele-detección e Incendios Forestales (ReuLATH)
- West African Regional Network (WARIN)
- Observatoire Satellital des Forêts d'Afrique Central (OSFAC)
- Miombo Network (MIOMBO)
- Southern Africa Fire Network (SAFNET)
- Caucasus Regional Information Network (CAUCRIN)
- Mekong Regional Information Network (MeRIN)
- Mediterranean Regional Network (MeRIN)
- Central Asia Regional Information Network

Southeast Asia Regional Research and Information Network (SEARRIN)

Southeast Asia: LCLUC Drivers Identified by SARI Pilots (Credit: Krishna Vadrevu, MSFC)

SEARRIN was first established in 1993. The network was established in Manila, Philippines, for monitoring LULUC in South/Southeast Asia. Later, the network started to focus on fires and Greenhouse gas emissions. The network was revived in 2014 with vibrant annual meetings and training events with the support of the National Institute of Environmental Studies (NIES) through JAXA funding and co-funding from multiple other international and national sponsors. In recent years, SEARRIN activities have been pursued as joint collaborative activities with SARI (South/Southeast Asia Regional Initiative). SEARRIN members have been actively participating in these activities.

SAI's vision is to develop innovative research, education, capacity building, and training programs involving state-of-the-art remote sensing, natural sciences, engineering, and social sciences useful for US and South Asia country researchers. Moreover, we would like to emphasize fundamental ecological and social processes, including climate changes that reflect regional concerns relating to LCLUC and impacts that cut across regional boundaries. Some of the vital land use/cover change drivers identified by the SARI researchers in SEARRIN countries are shown in the figure.

This network is being expanded, and we are eagerly looking for international collaborative research and network opportunities with other network researchers. To strengthen this network, we are engaging in international programs such as MARIS, GEO-GAM, SARI, HAINWEST, etc.

See recent activities below:

- 2023 SAGCN-SEA0019 Meeting, Hanoi, Vietnam
- 2023 SAGCN-SEA0019 Workshop on Remote Sensing, Cambodia
- 2022 SAGCN-SEA0019 Meeting, Phnom Penh, Cambodia

Meetings

Title	Start Date	End date
SARI-SEA019 meeting and training, Malaysia, 2019	07/22/2019	07/27/2019

Related Documents

Document Title
Summary of 2014 GOFC-GOLD fire Implementation team Meeting

US Contact Information

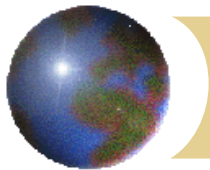
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Recent (2023) GOFC-GOLD Network Meetings and Accomplishments

South/Southeast Asia Network Meeting, Hanoi, Vietnam – February, 2023

- **Topic:** Air pollution in Asia
- **Outputs:** presentations addressed satellite based GHG emissions inventories, their impacts and mitigation options. Special issue of papers in “Environmental Pollution”, journal.

RedLaTIF meeting, Fortaleza, Brazil (Space Week) – August, 2023

- **Topic:** utilization of Earth Observation data for forest fire analysis, including enhancing collaborations.
- **Outputs:** In addition to satellite fire related research updates, the event provided forum for fostering collaborations, expanding technical expertise, publication initiatives, sustainable leadership, etc.

SCERIN meeting, Brno, Czech Republic - June, 2023

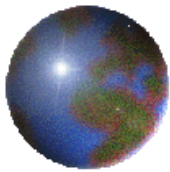
- **Topic: Recent terrestrial ecosystems LCLU changes in SCERIN countries**
- **Outputs: presentations and discussions identified important** driving forces and how to address those challenges to monitor LCLUC dynamics in the region.

Central Asia Regional Network Meeting (CARIN), Issyk-Kul, Kyrgyzstan – September, 2023

- **Topic:** Land use/cover changes focus on land and water management to changing environmental conditions.
- **Outputs:** Presentations and discussions identified important drivers of water stress, use and conditions in the region. On going Webinar Series.

GOFC-GOLD Fire Implementation Team Meeting, Quebec Canada – November, 2023

- **Topic:** Satellite remote sensing of fires. Held adjacent to the WildFireSat Stakeholder Meeting
- **Outputs:** provided a guidance on the needs and priorities for satellite fire product research, development and applications.



Forthcoming GOFC Meetings

- **GOFC Fire Implementation Team Meeting, Milan, Italy – September, 2024**
- **RedLaTIF meeting, Colombia - November, 2024**
- **South/Southeast Asia – Philippines – February, 2025**
- **Next SCERIN Meeting – generally July of every year, 2025**
- **All GOFC Networks Meeting – Turkey – September, 2025**

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Summary of the GOFC–GOLD Twentieth-Anniversary Regional Networks Summit

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Introduction

Global Observation for Forest and Land Cover Dynamics (GOFC–GOLD) is a



summaries

GOFC-GOLD All Network, 20th Anniversary Celebrated Sept 13-16th 2018, Tbilisi, Georgia

...ation, coordinate satellite observations, and provide a framework for and advocacy to establish long-term monitoring systems. It was established as a part of a Committee on Earth Observation Satellites (CEOS) pilot project in 1997, with a focus on global observations of forest cover. Since then, the program has expanded to include two Implementation Teams: Land Cover Characteristics and Change, and Fire Mapping and Monitoring. In addition, two working groups—Reducing Emissions from Deforestation and Forest Degradation (REDD), and Biomass Monitoring—were also formed. GOFC–



GOFC-GOLD Twentieth Anniversary meeting participants. Photo credit: Agricultural University of Georgia team

September 13-16, 2017. There were 45 people from 20 countries in attendance—including participants from Africa, Asia, South America, Eastern and Southern Europe, and the U.S. The Summit was held at the

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