NASA Support to the MedRIN: The Concept & the Digital Presence

Vince Ambrosia Associate Program Manager NASA Applied Science Program

RSCy-2019 Aliathon Hotel, Paphos, Cyprus 20 March 2019



Mediterranean Regional Infrormation Network (MedRIN)

- MedRIN is under the framework of the NASA Global Observations of Forest Cover and Land Dynamics (GOFC-GOLD) Program;
- Serves as a liaison between Land Cover Land Use Change (LCLUC) remote sensing scientists and stakeholders in the Mediterranean region.
- The MedRIN will keep members abreast with the latest advancements in Earth Observation applications based on NASA and ESA satellite data and data products.
- MedRIN should support tackling regional and local challenges, as described by the United Nations' Sustainable Development Goals (SDGs).







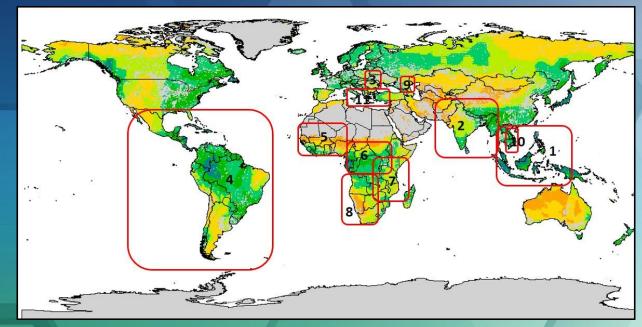






GOFC-GOLD Regional Networks





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 deTeledeteccion 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. Mekong Regional Information Network (MekRIN)
11. Mediterranean Regional Information Network (MedRIN)

MedRIN Objectives



MedRIN will support tackling regional and local challenges, as described by the United Nations' Sustainable Development Goals (SDGs). MedRIN will not replace existing networks in the region but will leverage additional networking capacity and build on the existing networks and systems with actions and ways that may only be of support to a peaceful utilization of Earth Observation in citizen's everyday life.

- 1. Better coordination and linkage of monitoring systems and databases across Mediterranean;
- 2. Strengthening and upgrading regional/national EO networks;
- Alignment of multi-modal and multi-source data compliant to international norms;
 Utilization of Copernicus and relevant freely distributed services in the region by end users;
- 5. Contribution to free publicly-available data through interoperable databases and services.

MedRIN Goals & Geographic Domain



Goals:

- Provide a platform for collaboration among remote sensing experts in Mediterranean region, through collaborative activities;
- Facilitate progress and consistent implementation of remote sensing and LCLUC methodology, in the region;
- Foster regional collaboration for monitoring the dynamics, stability, and vulnerability of the major ecosystems;
- Promote effective sustainable management and preservation, on the local, regional and pan-European level.

Geographic Domain: Mediterranean countries of Europe, the Levant, and North Africa.



MedRIN Leadership





Network Coordinators E.U.: Dr. Diofantos Hadjimitsis Vice Rector of Academic Affairs Professor Department of Civil Engineering & Geomatics, Cyprus University of Technology Lemesos, Cyprus

Dr. Ioannis Gitas (igitas@for.auth.gr) Faculty of Forestry and Natural Environment Aristotle University of Thessaloniki Thessaloniki, Greece



Network Coordinator U.S.:

Vince Ambrosia (vincent.g.ambrosia@nasa.gov) NASA- Ames Research Center / CSUMB Moffett Field, CA. USA



Actions / Decisions from 1st MedRIN: Crete, Greece, July 2018

NASA

- initial priority research areas for the MedRIN:
 - Fires
 - Agriculture
 - Urban
 - Soil degradation (Desertification)
 - Water Resources Management (Irrigation/Hydrology)
 - Training







Desertification



Socio-economic expertise is essential, particularly to study Land Use changes (causes, impacts). Further, socio-economic component is a basic criterion for proposed projects.

MedRIN Critical Regional Issues

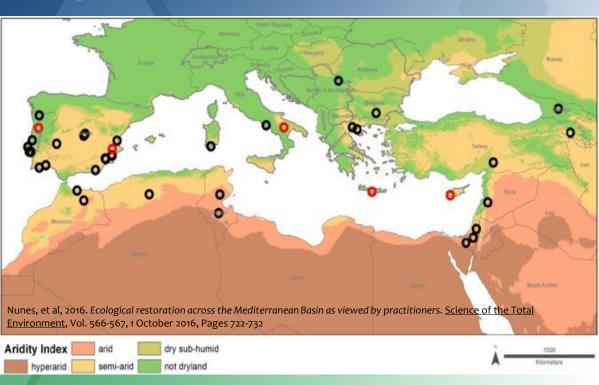


Changes in forest composition, age, structure and function;

Changes in ecosystem diversity;

Increasing urbanization;

- Water-related issues (Mediterranean);
- Unbalanced water regime (floods/droughts)
- Extreme Events increase (floods, droughts and fires) Other interests of the MedRIN community



Pre-cursors of LCC: natural & anthropogenic (e.g.
 technological advancements, political & population changes)

MedRIN Kickoff Meeting: Crete, July 2018



Participants coming both from academic and industry sectors such as universities, agencies and organizations attended the MedRIN kick-off meeting representing Greece, Cyprus, Israel, Turkey and Italy.



MedRIN Website



HOME RESOURCES DOCUMENTS MEETINGS REGIONAL NETWORKS CONTACT Q

Mediterranean Regional Information Network (MedRIN) Home - Regional Networks - Mediterranean Regional Information Network (MedRIN

Mediterranean Regional Information Network (MedRIN)

Regional Networks

Southeast Asia Regional Research and Information Network (SEARRIN)

South Asia Regional Information Network (SARIN)

SouthCentral European Regional International Network (SCERIN)

Red Latinoamerica deTeledeteccion e Incendios Forestales (RedLaTIF)

(WARN)

Observatoire Satellital des Forets

Southern Africa Fire Network (SAFNET)

Caucasus Regional Information Network (CaucRIN)

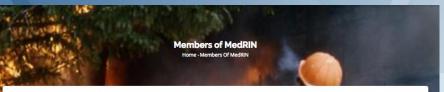
Mekong Regional Information Network (MekRIN)

Mediterranean Regional Network (MedRIN)



Welcoming MedRIN to the GOFC-GOLD family of networks

On behalf of the NASA Land-Cover/Land-Use Change Program - the primary sponsor of the international GOFC-GOLD Program - I'd like to welcome the new Mediterranean Regional Information Network MedRIN to the GOFC-GOLD family of networks. Developed in 1997 under the Committee on Earth Observation Satellites (CEOS), the Global Observations of Forest Cover initiative was originally intended to test the concept of the Integrated Global Observing System (IGOS) to improve the use of Earth Observation data to address major problems of global concern and to improve coordination of national programs. Additionally, it was directed at improving cooperation between providers and users of Earth Observation data for regional and global applications. Later on, GOFC became one of the Panels of the Global Terrestrial Observing System (GTOS), and was further named GOFC-GOLD to include other landcover dynamics in addition to forest cover change. Traditionally, its sponsors have been such international entities as Food and Agriculture Organization (FAO), World Meteorological Organization (WMO), United Nations Environmental Program (UNEP), European Commission Joint Research Center (IRC), European Space Agency (ESA), NASA and other agencies and institutions. The backbone of GOFC-GOLD are its Regional Information Networks (RINs) and Implementation Teams (IT) for Fire, with its office at the University of Maryland (College Park, MD, USA) and for Landcover, with its office at Wageningen University (The Netherlands). There are about a dozen RINs operating over the worlds. The aim of GOFC-GOLD leadership to ensure the functionality of these networks, revitalizing the older and enhancing the newer ones.



Members of MedRIN

List of MedRIN members

Invited Observers

- · Garik Gutman (LCLUC Program Manager at NASA HQ);
- · Georgios Baourakis (Director of MAICh at the international Center for Advanced Mediterranean Agronomic Studies);
- Jana Albrechtova (Professor at Charles University of Prague & Lead of the SCERIN);

Cyprus representation

- · Diofantos Hadjimitsis (Professor-Vice Rector of Academic Affairs at Cyprus University of Technology);
- · Andreas Christofe (Research Fellow Department of Civil Engineering and Geomatics at Cyprus University of Technology);

France representation

Brice Mora (former GOFC - GOLD representative)

Greece representation

- · Ioannis Gitas (Professor at the Faculty of Forestry & Natural Management, Aristotle University of Thessaloniki);
- · Georgios Zalidis (Professor at the Faculty of Agriculture, Aristotle University of Thessaloniki, Scientific Director at i-BEC, GEOSS High-Level Working Group Member);
- · Haris Kontoes (Research Director at National Observatory Athens, National Contact Point for the Exchange of National Data in GEO, National Delegate of the H2020 SPACE Program Committee);
- · Ioannis Manakos (Associate Researcher at the Centre for Research & Technology Hellas);
- Stavros Stagakis (Researcher at the Remote Sensing Lab, Institute of Applied and Computational Mathematics, Foundation for Research & Technology Hellas FORTH);
- Chariton Kalaitzidis (Research & Studies Coordinator at the Geoinformation in Environmental Management MSc, MAICh);

Israel representation

- Eyal Ben Dor (Professor at Geography & Human Environment Dpt., School of Environment & Earth Sciences, Tel Aviv University);
- Arnon Karnieli (Professor at Ben-Gurion University of the Negev)

Italy representation

Deodato Tapete (Researcher at the Italian Space Agency)

Turkey representation

- Levent Genc (Professor at Canakkale University)
- Irmak Yav Algan (Istanbul Technical University, Research and Application Center for Satellite Communications and Remote Sensing CSCRS)

West African Regional Network

d'Afrique Central (OSFAC)

Miombo Network (MIOMBO)



MedRIN Web Access

https://gofcgoldvh1.umd.edu/regionalnetworks/mediterranean-regional-network-medrin https://start.org/programs/gofc-gold/ http://web.cut.ac.cy/medrin/

