



# UN SDG's and GEOGLAM RAPP: Opportunities for convergence

Alex Held

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LAND AND WATER

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# UNSDG agenda relative to MDGs



....greater economic and social inclusion,  
 ...integration and balance among economic, social and environmental aspirations



**THE GLOBAL GOALS**  
 For Sustainable Development



## HIGH-LEVEL POLITICAL FORUM ON SUSTAINABLE DEVELOPMENT

*UNSG annual report on "Progress towards the Sustainable Development Goals"*



Statistical Commission  
**BETTER DATA BETTER LIVES**  
[unstats.un.org](http://unstats.un.org)  
 @UNStats



**UNDESA - UN Statistics Division (UNSD)**

### IAEG-SDGs

Inter-agency Expert Group on SDG Indicators

Working Group on Geo-spatial Information (WGGI)

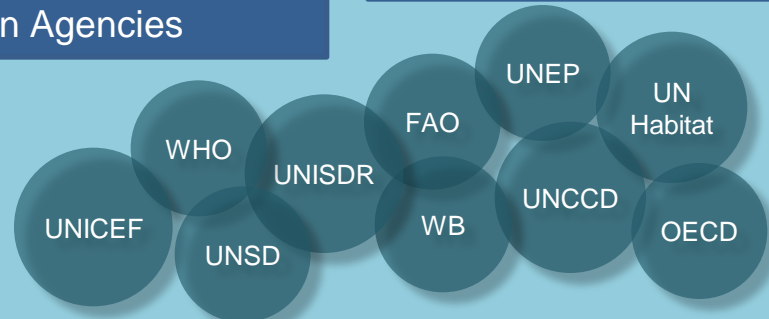
Working Group on Inter-linkages of SDGs

Working Group on SDMX

National Statistical Offices

UN Custodian Agencies


















National governments and agencies



Ascertain the potential of EO for supporting countries in their own target setting process, as well as planning and implementation of related strategies, and tracking progress towards the goals.

Extend initial analysis of GEO/CEOS potential contribution to SDG targets and indicators.



Target									Goal	Indicator				
Contribute to progress on the Target yet not the Indicator per se										Direct measure or indirect support				
							1.4	1.5		1.4.2				
						2.3	2.4	2.c		2.4.1				
				3.3	3.4	3.9	3.d		3.9.1					
														
								5.a		5.a.1				
	6.1	6.3	6.4	6.5	6.6	6.a	6.b		6.3.1	6.3.2	6.4.2	6.5.1	6.6.1	
				7.2	7.3	7.a	7.b		7.1.1					
							8.4							
				9.1	9.4	9.5	9.a		9.1.1	9.4.1				
					10.6	10.7	10.a							
	11.1	11.3	11.4	11.5	11.6	11.7	11.b	11.c		11.1.1	11.2.1	11.3.1	11.6.2	11.7.1
				12.2	12.4	12.8	12.a	12.b		12.a.1				
				13.1	13.2	13.3	13.b		13.1.1					
		14.1	14.2	14.3	14.4	14.6	14.7	14.a		14.3.1	14.4.1	14.5.1		
	15.1	15.2	15.3	15.4	15.5	15.7	15.8	15.9		15.1.1	15.2.1	15.3.1	15.4.1	15.4.2
								16.8						
17.2	17.3	17.6	17.7	17.8	17.9	17.16	17.17	17.18		17.6.1	17.18.1			

SDG targets and indicators that that can be supported by Earth Observations.

Source: EOS4SDG/CEOS



## GEO Initiative on the SDGs “*Earth Observations in Service of the 2030 Agenda for Sustainable Development*” (EO4SDGs):

- Elaborate case studies (mainly at country level) to showcase the value of Earth Observations for the SDGs:

Report on “*EO in support of the SDGs*” co-written with CEOS and distributed at the 48<sup>th</sup> UN Statistical Commission (available on CEOS page under SDGs)

- Participate in the new “Working Group on Geospatial Information” (WGGI) within IAEG-SDG (Inter-Agency Expert Group on SDGs):
- Explore further partnerships with SDGs stakeholders (e.g. GPSDD Data4SDGs toolbox)
- Capacity building activities



CEOS Agencies are active members of EO4SDGs



## Global Datasets

## Methods. Guidelines

## Country Support

## Capacity Building

## EO Software Toolboxes

## EO Knowledge Hub

### Custodian Agencies

### National Statistical Offices Governments / Agencies

### Key Stakeholders

- Access to global / regional datasets.
- in the absence of or to complement and enhance, national data sources.
- countries which face major difficulties in collecting national data

- Support custodian agencies to develop method. Guidelines for countries.
- EO Best Practices.
- Scientifically sound approaches.
- Product validation.
- Show Cases.

- Targeted activities to support NSOs and ministries to report on SDG indicators.
- Support country level efforts to apply EO to track, monitor and achieve SDGs.

- Build capacity to exploit EO
- Training courses
- Training material on EO best practices
- Mainly in developing and emerging economies
- Critical mass of technical centers

- Free of charge
- Open source
- Easy to use
- EO Processing Toolboxes
- Thematic Toolboxes

- Knowledge sharing
- Facilitate access to satellite data
- Access to global / regional datasets
- EO Best practices
- Method. guidelines
- Visualisation and Analysis tools
- On-line processing
- Toolboxes (e.g. Data Cube)





- Goal 15 - *Life on land*
- Target 15.3
  - *By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a **land degradation-neutral** world*
- *Land degradation is the reduction or loss, in arid, semi-arid and dry sub-humid areas, of the biological or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands **resulting from land uses or from a process or combination of processes, including processes arising from human activities and habitation patterns.***



Indicator 15.3.1 – *"Proportion of land that is degraded over total land area"*

## Sub-indicators

- *Land cover and land cover change*
- *Land productivity*
- *Carbon stocks, above and below ground*

# High-end Processing systems for mapping of freshwater & flood dynamics – SDG 6





Photograph: Paul Bolotov/Alamy

While the goals are universal, it is left to **countries to select national targets**

...determine their own priorities and level of ambition in terms of the scale and pace of transformation.[para 5]

## Countries readiness

Recent adoption = limited availability of literature and guidance, particularly in areas related to **national development planning for the SDGs** [an important vehicle of implementation].

# Discussion: The Science-policy interface



Role of EO in the SDG **target setting, monitoring and reporting**:

- **Mapping** / baseline determinations in target setting
- **Surveillance**: to detect change but does not differentiate between acceptable and unacceptable change.
- **Monitoring**: Surveillance undertaken to ensure that *formulated standards* are being maintained.
- **Reporting**: on progress towards... .. Some goals will be difficult to achieve by the set date (e.g. SDG target 15.3).

EO does not directly deliver the SDG indicators agreed by the Inter-Agency and Expert Group on SDGs; it rather provides some spatio-temporal information which can then *be related* to indicators.

National Statistical Offices (NSOs) will do the national reports, so the EO community needs to understand how best to engage with this community to develop metrics derived from EO data that be used for reporting.

# Could RAPP Map be adapted to serve spatial data in support of SDG's?



Web-based tool to visualise and query information on rangeland condition

“Open Beta” release:

Spatio-temporal data on vegetation cover, NDVI, rainfall and soil moisture

Ancillary layers on land use/ land cover, rangeland types and livestock densities from various sources

Easily add new user-provided layers.

