Eye on Earth Summit - Programme
Mina A'Salam, Madinat Jumeriah, Dubai,
October 22-24 2018

The programme is subject to minor change
Version: 27 Sep 2018

Session# 0 **Mon 22** **8:45 to 9:00** **15 mins** Room 1+2

Opening Welcome

GoToWebinar.com 569-573-651

Webcast URL #https://attendee.gotowebinar.com/register/95387425073677571#

H.E. Razan Al Mubarak

Secretary General, Environment Agency - Abu Dhabi (EAD)

Prof. Alexandre Caldas

Chief of Country Outreach, Technology and Innovation Branch, Science Division, UN Environment

Dr. Thomas Brooks

Chief Scientist, International Union for Conservation of Nature (IUCN)

Francis Gassert

Data for Impact Lead, World Resources Institute (WRI)

Steven Ramage

Head of External Relations, Group on Earth Observations Secretariat (GEO)

Session# 54 **Mon 22** **9:35 to 10:15** **40 mins** Room 1

Africa SDGs Data Mapping

GoToWebinar.com 120-531-867

Webcast URL #https://attendee.gotowebinar.com/register/2430346601703612675#

Dr. Ahmed Abdelrehim

Regional Programme Manager, Centre for Environment and Development for the Arab Region and Europe (CEDARE)

Dr. Ayman Abouamer

IT consultant , Centre for Environment and Development for the Arab Region and Europe (CEDARE)

Charles Sebukeera

Programme Officer and Africa Regional Coordinator, UN Environment

Abstract

The main objective of Africa SDGs data mapping is to establish a scientific knowledge support tool to promote innovations for mapping and monitoring the progress of achieving SDGs goals, targets and indicators across Africa. The portal will use the state of the art scientific and technical knowledge, tools and methods to put special emphasis on monitoring how African countries are progressing on various SDGs fronts and provides sub-regional and regional analysis across Africa. The Portal will also be used as a framework for multi-scale monitoring and assessment of data variables contributing to the development of the SDGs indicators.

The portal consists of three main modules. 1-Input module which will allow African countries to map and identify the data sources with respect to SDGs indicators. National experts can upload the data sources, departments within each institution or ministry responsible for the data collection of this specific indicator. African experts can also upload details of the contact person responsible for this indicator. Ultimately African countries may find it useful to upload and publish their SDGs indicators on the portal and provide statistical analysis on the progress made. 2-Searching module which allows different queries based on country, indicator or both. 3-The dashboard module of the portal is designed to provide mapping for data sources across countries highlighting the data gaps.

The database of the portal contains different types of related information such as institutions and contact persons responsible for data collection across Africa. The portal will make use of Africa Environmental Information Network (AEIN) and will be managed by national experts allowing them to establish their national networks. It will also be essential to provide data for the national and regional assessment processes. It will provide a regional platform to develop on line maps and Vital Signs of Africa's SDGs.

Session# 8.56 Mon 22 9:35 to 10:30 55 mins Room 2

Improving and harmonizing air quality data to map health impacts of air pollution: Featuring a case study from Abu Dhabi

GoToWebinar.com 479-533-827

Webcast URL #https://attendee.gotowebinar.com/register/670499076610076675#

Mazen AlMalkawi

Coordinator, Environmental Health Risks, World Health Organisation (WHO) Regional Center for Environmental Health Action (CEHA)

Ruqaya Mubwana

Section Manager, Air Quality, Noise and Climate Change Section, Environment Agency - Abu Dhabi (EAD)

Abstract

Sustainable Development Goals (SDG) call for achieving substantial reductions in air pollution-related deaths (SDG 3), improving urban air quality (SDG 7) and clean household energy (SDG 11). This requires core capacities to collect, manage and report accurate, reliable and geographically representative data on air pollution related health outcomes, and sources and levels of air pollution.

WHO estimates that 7 million people die every year from exposure air pollution. These estimates are based on the following three datasets:
Data reported by countries to WHO on mortalities and morbidities caused by cardiovascular diseases, lung cancer, stroke, lower respiratory infections, Asthma and COPDs are used. In most of the developing countries, available data are available at the national levels and need to be disaggregated at the population levels (e.g. Cities).

Data on access to clean cooking fuels and technologies, the main source of household air pollution. Currently the WHO database includes data from 1100 surveys, representing 157 countries. It has been expanded to include information on household fuels and technologies used for heating and lighting.
More than 4300 cities in 108 countries are now included in WHO's ambient air quality database, making this the world's most comprehensive database on ambient air pollution. The database collects annual mean concentrations of fine particulate matter (PM10 and PM2.5).

A framework for improving the three datasets will be proposed for discussion. The Clean Air initiative launched by the Environment Agency of Abu Dhabi (EAD) will be a good example for demonstrating this framework at national level. Its air quality program tracks important information from its ambient air quality monitoring network located across Abu Dhabi. Data are transmitted in near real-time, allowing the public to better understand the air quality status.

The network is comprised of 20 fixed stations and 2 mobile stations that measure the concentration of 17 air pollutants. The agency developed and implements a comprehensive quality assurance and quality control (QA/QC) system for the operation of the network, which ensures traceability in equipment calibration.

Session# 65 **Mon 22** **10:20 to 11:45** **1 hr 25 mins** Room 1

Data Challenges and Opportunities for Implementing the SDGs in the Arab Region

GoToWebinar.com 349-963-491

Webcast URL #https://attendee.gotowebinar.com/register/4004036912609502723#

Dr. Wafa Aboul Hosn (Speaker & Panelist)

Chief, Economic Statistics, United Nations Economic and Social Commission for Western Asia (UNESCWA)

Status of SDGs Environment-related Statistics in the Arab Region

Dr. Ahmed Abdelrehim (Speaker & Panelist)

Regional Programme Manager, Centre for Environment and Development for the Arab Region and Europe (CEDARE)

Data Needs and Policy Approaches for Implementing the SDGs in the Arab Region

Farah Choucair (Speaker & Panelist)

Project Manager and Technical Specialist of Arab Development Portal, UNDP Regional Bureau for Arab States

The Experience of the Arab Development Portal with SDGs Data

Dr. Abdelmenam Mohamed (Speaker & Panelist)

Regional Programme Officer, Science-Policy Interface Science Division, UN Environment (West Asia Office)

Capacity Building for Sustainable Development Data in the Arab Region

Dr. Adel Farid Abdel-Kader (Chair and Speaker)

Board Director, Trend Green Knowledge Inc

Institutional Coordination for Implementing the SDGs in the Arab Region

Abstract

The Sustainable Development Goals (SDGs) present a unique and critical challenge not only for the Arab region but countries around the world. The key to implementing the SDGs is data. The Arab region faces challenges regarding data availability and accessibility to support decision making to achieve sustainable development. The session is to highlight data challenges that need to be overcome, the data gaps towards SDGs indicators and related policies, technologies, infrastructure, institutional setup, and action opportunities to empower the region to implement the SDGs. The topics to be addressed in the session include the status of SDGs environment-related statistics in the Arab region, data needs and policy approaches for implementing the SDGs and capacity building for sustainable development data. Two other critical topics will also be covered; the experience of the Arab Development Portal with SDGs data, and the institutional coordination required to enable the necessary cooperation among concerned agencies working on implementing the SDGs. At the end of the session, there will be a panel discussion on innovative approaches and the enabling-appropriate environment for data sharing, ownership, financing, and related action opportunities. For successful implementation of the SDGs, the Arab region needs to identify priority issues on sustainable development at the regional and country levels. Those priority issues would provide the base to develop regional and national frameworks for SDGs data, as well as regional and national functional data platforms and SDGs tracking systems. Further, there is a need to prepare comprehensive data Action Plans to develop new data and methods to enable increased data generation to fill in data gaps. The way forward for the region requires working together; governments, citizens, civil society and the private sector in collaboration with regional and international organizations to ensure full integration in the global concerted actions to achieve the SDGs.

Session# 4.56 Mon 22 10:45 to 11:45 1 hr Room 2

Cataloguing Indigenous Knowledge

GoToWebinar.com 229-096-179

Webcast URL #https://attendee.gotowebinar.com/register/2571966997895127043#

Dr. Aby Drame

Project Coordinator , Enda Energie

Abstract

Indigenous Knowledge Bank (IKB) identifies and validates existing and partially forgotten African knowledge and coping strategies, which can be used in response to climate change impacts. Information collection is developed through consultation with existing networks, local communities and interest groups. Once gathered it is digitized, indexed and stored in a database. A web-based platform has been developed to facilitate the sharing and dissemination of this database. A series of communication materials, including a policy briefs, a video on the role of traditional seasonal climate predictions, a DVD, a document compiling good practices, three posters and a leaflet, have been produced and disseminated to a large audience to promote the IKB and the use of indigenous knowledge. Some of the local knowledge have been forgotten, hidden or simply ignored even though they are very valuable for mitigation and adaptation research efforts to achieve a sustainable socio-ecological development.Barriers to addressing the problem: Weak documentation of indigenous knowledge best practices. General objective: Up-scalling documented best practices and share information in different networks. Promote local knowledge that is relevant to the resolution of problems related to climate change for a better adaptation of vulnerable communities and sustainable development.

Overall outcome:Indigenous knowledge has been identified and valorise. Strengthened ENDA database on IKB (have more best practices documented, touched various African Zones. Up-scaling activities and knowledge sharing can help to have great impact to improve African communities capacity to adapt to climate change. That's mean IKB platform needs to continue to promote a sharing of knowledge between traditional approaches and modern science.Outputs: -More best practices documented in various ecosystem-A database of indigenous knowledge is developed and categorized according the different economic sectors of activity (agriculture, fishing, cattle breeding, others)

More best practices documented in various ecosystem-A database of indigenous knowledge is developed and categorized according the different economic sectors of activity (agriculture, fishing, cattle breeding, others).
In order to create the right conditions for developing solutions, Enda Energie outline an appropriate mechanism for transferring endogenous technologies based on the products, expertise and lessons learned from the project already implemented. The main objective of the initiative is to help raise endogenous technologies to a global scale and to the same level as modern technologies, thus helping manage climate risks more effectively and also reduce greenhouse gas (GHG) emissions through significantly increasing understanding among the populations concerned.

Session# 44.1 Mon 22 15:00 to 16:15 1 hr 15 mins Room 1

Global Environmental Education Partnership: Building a Global Champion for Environmental Education

GoToWebinar.com 873-694-603

Webcast URL #https://attendee.gotowebinar.com/register/1064726771705840899#

Judy Braus

Executive Director, North American Association for Environmental Education (NAAEE)

Melissa Hopkins Taggart

Director of International Programs, North American Association for Environmental Education (NAAEE)

Gayatri Raghwa

Executive Director, Wild Ecologue

Rasha Al Madfai

Section Manager - Environmentally Sustainable Schools, Environment Agency - Abu Dhabi (EAD)

Abstract

The Global Environmental Education Partnership (GEEP) is a learning network designed to champion and advance environmental education (EE) around the world. Since 2014, the GEEP has been working to build bridges among EE stakeholders; share effective practice; demonstrate the value and impact of EE as a tool for achieving the SDGs; support and mentor a new generation of leaders; and promote innovation. The North American Association for Environmental Education (NAAEE), which has promoted excellence in EE throughout North America and the world for almost five decades, serves as Secretariat, working in partnership with the U.S. Environmental Protection Agency and the Taiwan Environmental Protection Administration. Most recently, the GEEP launched a global Call for Action to seek input from environmental educators around the world on future directions for our field. The launch commemorated the 40th anniversary of the Tbilisi Declaration, a global declaration by UNEP and UNESCO on the importance of EE. During this presentation, we will provide an overview of the GEEP and share findings and next steps related to the global Call for Action, which received nearly 400 responses from 46 countries. We will also offer opportunities for future engagement and collaboration with the GEEP and NAAEE, including programs, conferences, and resources.

Session# 43.1 Mon 22 15:00 to 16:15 1 hr 15 mins Room 2

Information into Action: Approaches and lessons learned from global data initiatives

GoToWebinar.com 300-625-267

Webcast URL #https://attendee.gotowebinar.com/register/6464732940455229699#

Davis Anduvare

Africa Regional Manager, Global Partnership for Sustainable Development Data

Francis Gassert

Data for Impact Lead, World Resources Institute (WRI)

Aimee Barciauskas

Data Engineer, Development Seed

Rebecca Firth

Community and Partnerships Manager, Humanitarian OpenStreetMap Team

Abstract

There is a big gap between data supply and data use. As the number of information sources grows daily, so does the difficulty of finding the most relevant data. How can we help governments, businesses, civil society organizations find useful data amidst mountains of information?

Through three short presentations and a moderated discussion, this session will explore a range of approaches that have successfully closed the gap between data supply and its use by target audiences, sharing challenges and lessons learned on making data useful and actionable. It will focus in particular on initiatives that address the world's environmental and development challenges, including climate change, deforestation, air pollution, and water.

Session# 67 **Mon 22** **16:30** to **17:30** **1 hr** Room 1

Global Forest Link: Engaging Youth Worldwide in Collaborative Environmental Analysis and Decision Making

GoToWebinar.com 854-927-907

Webcast URL #https://attendee.gotowebinar.com/register/2539419254691109635#

Dr. Elena Yulaeva

Executive Director, Community Commons,
Director, Global Forest Link

Dr. Yvonne Marie Andrés

Director of Education and Outreach, Global Forest Link

Abstract

Global Forest Link (globalforestlink.com, GFL), an award-winning environmental program, engages youth worldwide in active protection of the environment, with the goal of creating a more sustainable future. Forests are extremely important for human health, climate change mitigation, water purification, and for communities' resilience and sustainability. Forest health monitoring and management require international collaboration, increased awareness of forest threats, a better understanding of forest processes, and practical skills in analyzing and communicating forest information. Initially developed as an education extension of the WRI's Global Forest Watch platform, the Global Forest Link project has brought together over 1800 students from 100+ schools and youth groups, and 7 countries. Its key objective is to nurture a new generation of world stewards, who are skilled in modern earth observation technologies, data collection and analysis, evidence-based education, international collaboration, environmental advocacy, and journalism. GFL teaches youth to explore key environmental change issues by integrating space imagery and local data, understand environmental and socio-economic consequences of forest degradation, and to communicate their findings to peers and communities. These are important skills needed by future environmental advocates capable of formulating and promoting coordinated strategies and solutions to problems that require global cooperation. GFL addresses the UN 2030 Sustainable Development Goals, focusing on Goals 4 (ensure inclusive and equitable education), 13 (combat climate change and its impacts), and 15 (promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss). The project advances best education practices and promotes equitable access to information. GFL methodology and activities lower the barrier to engagement and enable environmental advocacy by youth around the world. The GFL interactive portal provides effective mechanisms for collection, analysis and sharing environmental and social information.

Session# 43.2 Mon 22 16:30 to 17:15 45 mins Room 2

Resource Watch Workshop - Monitoring the Planet's Pulse

GoToWebinar.com 396-568-723

Webcast URL #https://attendee.gotowebinar.com/register/7101499706518952963#

Francis Gassert

Data for Impact Lead, World Resources Institute (WRI)

Abstract

Creating a healthy planet where people and ecosystems can thrive requires trustworthy, accessible, and actionable information. Data has never been more plentiful, but few sources are open and curated to meet our needs.

Resource Watch is the world's monitoring system: an open-source, collaborative data platform that makes it possible to track and manage precious natural resources. Hundreds of open data sets offer insight into some of our planet's most urgent issues, including climate change, air pollution, and water insecurity. Access and evaluate data sets to meet your interests, create custom visuals, and your findings. Resource Watch is curated by World Resources Institute (WRI), built together with over 40 partner organizations.

This hands-on workshop will focus on how this tool can be used for to conduct or share spatial analysis, and solicit feedback to inform how our community can build better open-data tools. Please bring a laptop with Chrome or Firefox installed.

Session# 68 **Mon 22** **17:30** to **19:30** **2 hr** Room 2

Application of Earth Observation (EO) data to support robust investment decisions in the face of a changing climate

GoToWebinar.com 781-633-691

Webcast URL #https://attendee.gotowebinar.com/register/441510386964510211#

Tanzeed Alam

Managing Director, Earth Matters Consulting

John Firth

CEO and Co-Founder, Acclimatise Group LTD

Jed Sundwall

Global Open Data Lead, Amazon

Steven Ramage

Head of External Relations, Group on Earth Observations Secretariat (GEO)

Abstract

Many sectors of the economy are sensitive to weather and climate, and climate change is already having profound effects which need to be understood and managed effectively to ensure sustainable development. Growing numbers of heat waves, more droughts and floods, rising sea levels, and increased losses from extreme weather events are occurring globally. Evaluating the risks posed by climate change and making decisions about how to adapt requires sound science and data as a foundation.

At present, the potential of Earth Observation (EO) data to support sustainable economic development in the face of a changing climate is significantly under-utilised. EO data can be used to monitor urban growth, sea level rise, harmful algal blooms, river discharges, and the state of critical infrastructure, among many others. Applications based on EO data can help to identify climate change hot spots and to develop forecasting systems for extreme climate-related events.

This session will highlight the value of (EO) data for evaluating climate risks and ensuring that investments by public and private sector decision-makers are climate resilient. Drawing on examples of global best practice, the session will demonstrate how EO data, combined with socio-economic data and climate change projections, can provide powerful applications and analytics to improve the design, preparation and management of investments in many economic sectors, including industry, commerce, real estate and infrastructure.

The session will provide examples of international initiatives which are building capacity to access EO data and create EO applications that help to manage changing climate risks. It will discuss the exciting potential for EO data to transform the way decisions are made.

Session# 44.2 Mon 22 17:45 to 20:15 2 hr 30 mins Room 1

Global Environmental Education Partnership and NAAEE: An Interactive Workshop Focused on Strengthening Environmental Education Around the World!

GoToWebinar.com 526-393-371

Webcast URL #https://attendee.gotowebinar.com/register/5030478296136017666#

Judy Braus

Executive Director, North American Association for Environmental Education (NAAEE)

Melissa Hopkins Taggart

Director of International Programs, North American Association for Environmental Education (NAAEE)

Gayatri Raghwa

Executive Director, Wild Ecologue

Rasha Al Madfai

Section Manager - Environmentally Sustainable Schools, Environment Agency - Abu Dhabi (EAD)

Abstract

In this interactive session, participants will get a chance to learn more about the Global Environmental Education Partnership (GEEP), a learning network designed to champion and advance environmental education (EE) around the world. Since 2014, the GEEP has been working to build bridges among EE stakeholders; share effective practice; demonstrate the value and impact of EE as a tool for achieving the SDGs; support and mentor a new generation of leaders; and promote innovation. We will dive deeper into the GEEP's priorities and next steps, including the global Call for Action and resources designed to create a more environmentally-informed and committed global citizenry, such as global case studies, a new e-book (in progress), and a professional learning site called eePRO. Participants will have a chance to take part in activities and discussions to identify actions for the next decade and beyond to build global capacity for EE and use the power of education to achieve the Sustainable Development Goals (SDGs). We will discuss how we can work together to strengthen EE in the Central and West Asia regions, and share a number of resources from the North American Association for Environmental Education (NAAEE) including "Tools of Engagement: A Toolkit for Engaging People in Conservation," resources on linking research and practice, and more. And there will be prizes!

Session# 93 **Tue 23** **8:30 to 10:30** **2 hr** Room 2

Open Data Cubes: Earth Observations for the Sustainable Development Goals

GoToWebinar.com 482-572-891

Webcast URL #https://attendee.gotowebinar.com/register/4737005448546195459#

Dr. Brian Killough

Head, CEOS Systems Engineering Office, NASA

Jennifer O'Neill-Oldfield

Director of Communications, Global Partnership for Sustainable Development Data

Steven Ramage

Head of External Relations, Group on Earth Observations Secretariat (GEO)

Davis Anduvare

Africa Regional Manager, Global Partnership for Sustainable Development Data

Bonnie Fofana

Snr. Programmer/Administrator of the Food and Nutrition Security National Early Warning System/CountrySTAT, Min of Agriculture and Forestry, Sierra Leone

Benedict Mugambi

SENIOR GEOINFORMATION OFFICER, National Bureau of Statistics, Tanzania

Major Andrew Nyawade

Space Systems Engineer, Kenya Space Agency

Abstract

The session will focus on the global work of the Open Data Cube (40 countries to date), in particular the Africa Regional Data Cube and how this relates to the MENA region and opportunities for countries to share experiences and opportunities to engage.

The Africa Regional Data Cube, formally launched at a high-level event in Nairobi, Kenya in June 2018, is a new tool that harnesses Earth observation and satellite technology to help Kenya, Senegal, Sierra Leone, Ghana, and Tanzania address food security and issues relating to agriculture, deforestation, and water access.

The open data cube approach is cross-cutting in terms of the environmental and economic development issues it is being used to address. Unlike some other data-led approaches, the algorithms and approaches developed in-country are potentially applicable to numerous other countries. The data from the numerous international data cubes is designed to facilitate research, policy and decision making for long-term, sustainable development.

The open data cube has a goal to provide greater access to data and information, particularly open Earth observations. The data cube is the data infrastructure, primarily based on cloud computing and high performance computing. The goal is to build on existing capacity and develop skills and knowledge.

The open data cube activities, particularly the Africa Regional Data Cube, will support the GEO initiative Earth Observations in support of the Sustainable Development Goals (EO4SDG). This matches the Cape Town Global Action Plan, namely the alignment of national plans with the data cube activities in the areas of agriculture, land use/change and water resources management.

The open data cube is, by design, working across multiple disciplines and sectors. It is providing opportunities for collaboration across governments, universities, the private sector and civil society. Come to this session to discover how you can join the data cube movement.

Session# 14 **Tue 23** **8:45 to 9:15** **30 mins** Room 1

Gender disagregated data in Natural Resource Management

GoToWebinar.com 376-607-651

Webcast URL https://attendee.gotowebinar.com/register/271267504076409859#https://attendee.gotowebinar.c

Egline Tawuya

Head of SARDC IMERCSA, Southern African Research and Documentation Centre

Abstract

In southern Africa, like the rest of the continent there has been little generation, documentation and access of gender disaggregated data to track progress that has been made on gender mainstreaming and inform future plans and interventions. Where both men and women are involved in decision making in Natural Resource Management (NRM), positive results have been achieved. However there is a gap in documentation of lessons learnt in engaging all groups. Thus, there is need for evidence-based data on gender mainstreaming in NRM. Providing such evidence will highlight gaps of existing policies and strategies which do not recognize the importance of mainstreaming gender in NRM.

Evidence-based research assists in adoption and replication of effective practices among communities in the region and beyond. Policy makers and other stakeholders will be better informed on the advantages of consulting and involving women at all levels when crafting policies and frameworks of NRM leading to sustainable development. This project enhances the mainstreaming of gender through more structured participation of both women and men in strategy formulation, planning, and implementation of NRM. This involves collecting gender disaggregated data showcasing facts and figures and develop a platform to exchange knowledge and disseminate results widely across river basins.

By strengthening gender mainstreaming in WRM the initiative will contribute to the objective 3.5 of the Global Action Plan for Sustainable Development which promotes strengthening and expansion of data on all groups to ensure that no one is left behind. It supports the key actions for this objective which includes the need to improve the production of high-quality, accessible, timely, reliable and disaggregated data by all characteristics relevant in national contexts to ensure that no one is left behind; Promote the systematic mainstreaming of gender equality in all phases of planning, production and usage of data and statistics.

Session# 66 **Tue 23** **9:30 to 10:30** **1 hr** Room 1

The Biodiversity Indicators Partnership (BIP) Dashboard: Tracking Trends for Conservation

GoToWebinar.com 549-139-475

Webcast URL #https://attendee.gotowebinar.com/register/7192313869415810307#

Dr. Thomas Brooks

Chief Scientist, International Union for Conservation of Nature (IUCN)

The Biodiversity Indicators Partnership (BIP) Dashboard

Mike Gill

Director, Biodiversity Indicators Program, NatureServe
Co-Chair, Group on Earth Observations – Biodiversity Observation Network, NatureServe

Opening Comments on the Biodiversity Indicators Partnership (BIP) Dashboard: Perspectives from an Indicator Provider

Abstract

NatureServe and UN Environment's World Conservation Monitoring Centre in collaboration with the Biodiversity Indicators Partnership (www.bipindicators.net) are bringing together the strength of the BIP indicators with NatureServe's leadership in developing conservation software solutions to develop a Biodiversity Indicators Partnership (BIP) Dashboard. The BIP Dashboard (http://bipdashboard.natureserve.org/content/map?c=BIP) is an interactive, customizable and user-friendly tool that allows exploration of progress in achieving biodiversity targets at sub-national, national, regional and global scales. Users can download visualisations of indicator trends at multiple spatial scales and use them for national reporting (e.g. 6th National Reports to the Convention on Biological Diversity) and for continual, inter-sessional tracking of regional and global targets. The BIP Dashboard is being co-developed with a number of nations worldwide to ensure it is user-driven, meeting the specific needs of a diversity of nations. This session will profile and demonstrate the BIP Dashboard and how it is being used to streamline national, regional, and global tracking of targets under the biodiversity-related Multi-lateral Environmental Agreements and how it can inform and assess other conservation policy actions. This interactive session will also seek feedback from participants on how to improve the functionality and interface of this web-based platform.

Session# 45 **Tue 23** **10:45 to 12:00** **1 hr 15 mins** Room 1

Environmental Conventions Index: Measuring the implementation of global environmental conventions

GoToWebinar.com 956-469-363

Webcast URL #https://attendee.gotowebinar.com/register/9125299291510519811#

Prof. Maria Ivanova

Associate Professor and Director Center for Governance and Sustainability, University of Massachusetts Boston

Prof. Natalia Escobar-Pemberthy

Assistant Professor, Universidad EAFIT

Haddy Guisse

Programme Officer Multilateral Environmental Agreements Support and Cooperation / Law Division, UN Environment

Peter Katanisa

Advisor to the Minister of Environment, Ministry of Environment, Rwanda

Jack Whitacre

PhD Fellow, University of Massachusetts

Abstract

Global environmental conventions are created to address and resolve global environmental problems. Assessments of the achievement of specific environmental goals, however, indicate that there is room for progress and that stronger collective action is required. There are no systematic empirical instruments to measure implementation and to determine the factors behind individual countries' results. It is therefore necessary to expand existing analytical frameworks and data on environmental conventions and their role as global governance instruments designed to protect the environment. This session will present an empirical instrument – the Environmental Conventions Index – that assesses the implementation of global environmental conventions and tracks the main trends for both countries and conventions. Using a mixed methods approach, it analyzes the implementation of four conventions in two clusters – pollution and conservation – by all member states and illustrates trends over time (15 years). We will show results for Rwanda and discuss the underlying reasons for countries' performance. As the international community is at a crossroads in the solution of global environmental challenges and the implementation of new agendas for sustainable development, countries' commitment to international environmental goals should occupy center stage in the political debate.

Session# 13 **Tue 23** **10:45 to 11:25** **40 mins** Room 2

Applied System of Systems Approach to the 2030 Agenda

GoToWebinar.com 610-660-307

Webcast URL #https://attendee.gotowebinar.com/register/1531514537693617155#

Charles Brigham

Account Executive, Nonprofit and Global Organizations Accounts Division, Environmental Systems Research Institute (ESRI)

Dr Waleed Effat

GIS Consultant

GIS Consultant, Environmental Systems Research Institute (ESRI)

Abstract

Recognizing the urgent need for countries to be able to provide national reporting on the SDGs, in March 2017 UNSD and Esri agreed to initiate and conduct a research and learning exercise aimed at strengthening the ability for Member States, UNSD and SDG stakeholders to share data, knowledge, information management and best practices in monitoring the SDGs and their implementation in a more holistic and consolidated manner. Another key driver for this research emanated from the professional statistical community's need, as reflected in the work of the UN Expert Group on the Integration of Statistical and Geospatial Information (EG-ISGI), to integrate geospatial and statistical information in order to support the 2020 Round of Censuses, to apply to other census-related initiatives, and to achieve the SDGs. Using location information as the overarching framework, the aim was to integrate data from different systems using the common denominator of location and to apply maps and spatial reasoning to explore data in intuitive ways so that a deeper understanding of the complexities and dependencies inherent in the SDGs can be realized.

Working with a small number of select (initially 6) Member State National Statistical Organizations (NSOs), the objective of the research exercise was to:

1.Strengthen the ability of the national and global statistical systems to manage and share data, knowledge, information, and good practices for the dissemination, visualization and use of data and statistics for the SDGs through national Data Hubs.

2.Deploy a Global UN SDG Data Hub for the reporting on SDG indicators within UNSD.

3.Provide a modern platform (enabling technologies) for collaboration among data producers and users that facilitates standards-based data interoperability (within and outside National and Global Statistical Systems boundaries).

4.Enable the overlaying of multiple national and global data sets (to understand data flows, address inconsistencies).

The research exercise leveraged the existing data and systems in Member States and piloted a service-based, interoperable and standards driven system-of-systems approach to measure, monitor and report, in an integrated and consistent manner, on the SDG indicators. The system allowed users to engage with data as a service, changing the traditional approach to statistical data production and dissemination, and explored new pathways for facilitating data flows and action through Data Hubs, to bring together national and subnational data sets and link them to a global Data Hub and the global SDGs in UNSD.

Session# 72 **Tue 23** **11:30 to 12:00** **30 mins** Room 2

Visual Analysis of SDG Indicators and Environmental Surveys with SuAVE

GoToWebinar.com 615-844-619

Webcast URL #https://attendee.gotowebinar.com/register/3580310420032586499#

Dr. Ilya Zaslavsky

Director, Spatial Information Systems Lab, San Diego Super Computer Center/University of San Diego California

Abstract

We demonstrate an online application for visual analysis of SDG indicators, built over the SuAVE (Survey Analysis via Visual Exploration, http://suave.sdsc.edu) platform. SuAVE is a free open source cloud-based system for visual browsing and analysis of image collections and surveys. Besides the analysis of SDG indicators, it has been used in a wide range of environmental and socio-economic surveys, from visualization and analysis of earth observing systems to biodiversity studies, household surveys, urban development and land use analysis, public health surveys, and examination of forest conditions. Working with SuAVE, users can visualize the entire collection content, sort and filter items by any combination of metadata elements, seamlessly navigate from the big picture to individual items, annotate patterns and outliers, and share their findings with others. By combining visual, cartographic and statistical analyses, and presenting animated transitions between different survey views, this approach has the potential to engage a wide and diverse group of users. Using the recently added integration between SuAVE and Jupyter notebooks, users can pass survey parameters to a Jupyterhub server to compute additional variables and statistical models, perform image processing, run classification algorithms, do text analysis, and access external data resources. The computed variables are then added to the survey for visual analysis. This new feature opens additional data analysis and integration possibilities in fields that require simultaneous exploration of multifaceted data and images. The platform promotes equitable access to information and citizen engagement in data exploration and communication, offering a framework that is easy to use by the general public yet powerful to be used by researchers who organize their reproducible computational workflows using Jupyter notebooks.

Session# 101 **Tue 23** **13:00 to 13:15** **15 mins** Room 2

Fish Carbon - Ocean Conservation as Climate Change Action

GoToWebinar.com 169-980-067

Webcast URL #https://attendee.gotowebinar.com/register/1086468514872186881#

Steven Lutz

Programme Leader, Blue Carbon, UN Environemnt/GRID-Arendal

Jim Toomey

Syndicated Cartoonist, Sherman's Lagoon

Dr. Heidi Pearson

Fulbright Scholar, UN Environment/GRID-Arendal

Abstract

Can taking care of our oceans help combat climate change? In answer to the call by the United Nations to provide innovative solutions to address the climate change challenge and prevent global biodiversity loss, a new concept has arisen which recognizes the potential of marine life to fill this void. “Fish Carbon” is a term used to describe the carbon interactions of all marine vertebrates: turtles, sea birds, mammals such as whales and dolphins, and fish such as sharks, tuna and sardines. These interactions or mechanisms are the natural life processes of marine life that enable capture of atmospheric carbon, allow carbon storage in benign form deep in the ocean, and provide a potential buffer against ocean acidification.

The Fish Carbon concept will be profiled though the launch of a short video produced by Jim Toomey, Syndicated Cartoonist of Sherman's Lagoon. Fish Carbon’s relevance in science, carbon capture and in international climate and conservation policies will also be presented and discussed. Through Fish Carbon, the conservation of our ocean and marine life could be intrinsically linked to addressing the global climate challenge

Session# 96 **Tue 23** **13:15 to 14:45** **1 hr 30 mins** Room 1

The World Situation Room - UN Environment's response to the Data Revolution

GoToWebinar.com 830-640-155

Webcast URL #https://attendee.gotowebinar.com/register/4683709920924816131#

Prof. Alexandre Caldas

Chief of Country Outreach, Technology and Innovation Branch, Science Division, UN Environment

Dr. Pascal Peduzzi

Director, GRID-Geneva, GRID-Geneva
Science Division, UN Environment

Consul, A.H James Donovan

Chief Executive Officer, ADEC Innovations

Abstract

During the session, a "soft launch" of the World Environment Situation Room, a new intiative and solution from UN Environment will take place. The World Situation Room is a high quality, impact research and development platform. State-of-the-art science and technology tools such as georeferenced, remote-sensing and earth observation information are integrated with statistics and big data. Our strategy is to integrate this information into a Global platform to be used as an instrument for policy and action on Global Green Solutions for the Environment. There will be an opportunity to have a brief discussion that highlights the novel ways to access and communicate Environmental Data through Story Maps. We hope that this session will not remain as an idea that was discussed at Eye on Earth Symposium, but rather that we, as a global community, create substantial plans and use collective resources and innovative ways to help achieve the 2030 Agenda.

Session# 94 **Tue 23** **13:15 to 14:45** **1 hr 30 mins** Room 2

Integration and disaggregation of biodiversity data towards sustainable development: a deep dive

GoToWebinar.com 828-785-691

Webcast URL #https://attendee.gotowebinar.com/register/9057172451543262211#

Dr. Thomas Brooks

Chief Scientist, International Union for Conservation of Nature (IUCN)

Dr. Shaikha Al Dhaheri

Executive Director - Terrestrial and Marine Biodiversity Sector, Terrestrial & Marine Biodiversity, Environment Agency - Abu Dhabi (EAD)

Melanie Heath

Director – Science, Policy and Information Management, Bird Life International

Shyama Pagad

Programme Officer, IUCN SSC Invasive Species Specialist Group
University of Auckland

Dr. Jon Paul Rodríguez

Chair, IUCN Species Survival Commission

Dr. Ben Tregenna

Head of Informatics, UN Environment-WCMC

Abstract

One major innovation of the Sustainable Development Goals (SDGs) was the incorporation of environmental sustainability at the same level as social and economic issues. Thus, as we progress towards 2030, we need to ensure that biodiversity and conservation are integrated within national decision making processes. This poses substantial challenges to national statistical offices, many of which have limited experience and capacity in handling environmental data, and requires that relevant data and indicators are embedded into national data workflows. However, processes to maintain a number of key environmental datasets already exist and there is great potential integrate these with each other and with socio-economic data. Such data could be disaggregated by geography and theme to support planning and reporting for national governments and other sectors.

This session aims to exemplify these possibilities for the case of biodiversity and conservation data: the IUCN Red List of Threatened Species, Key Biodiversity Areas, Protected Planet, and invasive species databases. We will examine how these data are compiled and flow between national and global levels, how they can be combined with other datasets to produce meaningful indicators, and how they support reporting against the SDGs and Multilateral Environmental Agreements. We will conclude by highlighting remaining challenges, and stimulate discussion on mechanisms to resolve these.

The session's primary objective will be to raise awareness among national statistics offices of the availability and potential of environmental datasets to support SDG planning and reporting. Specifically, it is also intended to strengthen processes for maintaining and delivering biodiversity indicators for tracking progress towards SDGs 14 and 15 and the biodiversity-related conventions. This is particularly urgent and timely given the timelines of the Strategic Plan for Biodiversity 2011–2020, and the biodiversity-related SDG targets, as 2020, and thus the need to establish targets and indicators for the post-2020 biodiversity framework.

Session# 23 **Tue 23** **15:00 to 16:15** **1 hr 15 mins** Room 1

Doing Business Differently: How the use of data can enhance the role of the private sector in addressing climate change

GoToWebinar.com 892-179-675

Webcast URL #https://attendee.gotowebinar.com/register/7496086941936837123#

Maya Doolub (Moderator)

CEO, Elms Consulting
Advisor to GLISPA

Abstract

This session will look at the role of the private sector in addressing climate change and sustainable development and asks how improved access to information and data, together with community engagement can enhance the positive impact that the private sector can have on environmental protection and social and economic growth, whilst also encouraging local island entrepreneurship to flourish with innovation.

The session will examine how island governments could better harness the data, both available and emerging, to encourage local business opportunities as well as collaboration and investment in other sectors, whilst also adapting and enhancing local skills and talent, and supporting visionary thinking.

Local communities and business should be enabled to benefit from the available data regarding the wealth and wealth of opportunity in their oceans, preserving both the Green and Blue economy, whilst global businesses could also be utilising this data to increase awareness of the connection between islands and the ocean.

The session will explore also how increased community engagement in available data can increase understanding of natural capital and will ask how the government can drive this and provide a clearer perception of the opportunities that natural assets provide for sustainable growth. These are opportunities that also provide platforms of growth and expansion, as well as investment for global entities.

As we continue to push forward with recover efforts after Hurricanes Maria and Irma last year, whilst also bracing ourselves for the upcoming hurricane season in the Atlantic, the session will also explore how governments, utilities and policy-makers can work more closely with the private sector to develop aggregated opportunities in the Caribbean for more resilient infrastructure. This creates exactly the type of scale and opportunity sought by the private sector and investors globally, alongside the traditional gateways for trade with islands of tourism, agriculture and aquaculture - utilising available data, all can be expanded to improve economies alongside climate sustainability and innovative technologies.

Session# 49 **Tue 23** **15:00 to 15:15** **15 mins** Room 2

WWF tools for unlocking community based environmental monitoring

GoToWebinar.com 286-375-155

Webcast URL #https://attendee.gotowebinar.com/register/5310956015802151683#

Mathew Langen

GIS Specialist/Developer/Trainer, WWF-Tanzania

Abstract

Community Based Organizations (CBOs) and Civil Society Organizations (CSOs) forms Community Based Natural Resources Management (CBNRM) Areas which are important Village level designated areas for biodiversity conservations and utilizations. These areas are set aside through participatory Land Use/Marine Spatial Plans. Until recently, the CBOs main activities were protections of natural resources in their areas set aside for sustainable conservations and responsible utilizations outside protected areas which acts as corridors and/or dispersal/forage/breeding areas.

It was important to empower the CBOs/CSOs in environmental degradations early warning through the applications of satellite observed data and insitu observations (Citizen Science). WWF-Kilimanjaro Mapper and WWF Field Kit are tools for unlocking Community based environmental monitoring and modeling. The tools will enable not only to monitor the environments but also the degradations and climate variability at a selected locations/place using Quarter Degree Grid Cell (QDGC).

The tools are designed within WWF-Tanzania using Google App Engine (GAE) and utilize the data from Google Earth Engine (GEE) and can monitor both landscapes and seascapes areas. There are more than 50 monitoring parameters with initial 6 modeling parameters which are Forests Canopy Density (FCD), Vegetation Health Index (VHI), Vegetation Drought Index (VDI), Vegetation Condition Index (VCI), Water Condition Index (WCI) and Temperature Condition Index (TCI). Also, the tools can be used to capture field data such as GPS Coordinates and tracks and search locations which enable community Citizen Science (CS).

Session# 62 **Tue 23** **15:15 to 16:15** **1 hr** Room 2

Engagement and Big Data: the Citizen Science contribution to the UN Sustainable Development Goals

GoToWebinar.com 187-241-963

Webcast URL #https://attendee.gotowebinar.com/register/158805056741792259#

Dr. Anne Bowser

Director, Innovation, Woodrow Wilson International Center for Scholars,
Citizen Science Global Partnership (CSGP)

Martin Brocklehurst

Chair Policy Working Group (ECSA), European Citizen Science Association (ECSA)
Citizen Science Global Partnership (CSGP)

Libby Hepburn

Chair, SDG and Citizen Science Working Group (ECSA)
Atlas of Life in the Coastal Wilderness (Australia)

Rosy Mondardini

Managing Director, Citizen Science Center Zurich

Abstract

The spread of information and communication technologies has enabled recent advances in Citizen science to capture local knowledge, observations, and experiences using scientific methodologies to create sources of reliable, real-time data over global spatial extents with fine-scale resolution. Scientists across the world are using citizen science methods to successfully advance new frontiers in natural sciences, social sciences, humanities, and medicine; advances impossible to achieve by conventional methods.

This workshop will show case the new organisations, structures and systems being developed to ensure that Citizen Science delivers non-official sources of data that will fill data gaps for the SDGs and support their implementation. It will provide an essential introduction to the global citizen science community and set the scene for the second Citizen Science symposium session that will follow and explore in detail how these new data sets can be drawn together and linked to official data sources.

Session# 63 **Tue 23** **16:30 to 20:15** **3 hr 45 mins** Room 1

Implementation and applications of the IUCN Red List of Ecosystems

GoToWebinar.com 417-681-051

Webcast URL #https://attendee.gotowebinar.com/register/3088664895183572227#

Veronica Ruiz

Nature-based Solutions Programme Officer, International Union for Conservation of Nature (IUCN)

Dr. Daisy Hessenbeger

Nature-based Solutions Support Officer, International Union for Conservation of Nature (IUCN)

Abstract

The International Union for Conservation (IUCN) of Nature, together with its Commission on Ecosystem Management (CEM), are pleased to invite you to a training workshop on The Red List of Ecosystems (RLE). This ecosystem assessment tool is comprised of five rule-based criteria for evaluating the risk status for the collapse of ecosystems enabling comparisons between regions and over time to plan appropriate conservation actions, applicable at local, national, regional and global levels. The IUCN RLE, underpinned by strong scientific-foundations, evaluates the change in ecosystem distribution and function using quantitative measures and thresholds thus informing better ecosystem management solutions and helping identify areas that need fast and effective actions.

The training will:

- Provide an overview of the methodology including key concepts, examples of completed assessments at national and global scales, and their applications;
- Explain the set of five criteria and associated thresholds for performing evidence-based, scientific assessments of the risk of ecosystem collapse, as measured by reductions in geographical distribution or degradation of the key processes and components of ecosystems;
- Introduce the 8 categories for risk of collapse Collapsed (CO), Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Concern (LC), Data Deficient (DD), and Not Evaluated (NE);
- Through targeted case studies, provide an understanding not only of how the criteria work together to assess risk, but how this information can be used to inform different types of policies and management decisions; and
- Illustrate key components of the process of undertaking RLE assessments, and data and information requirements, through hands on preliminary experience and interactive group work targeted at different audiences.

Session# 53 **Tue 23** **16:30 to 18:30** **2 hr** Room 2

The contribution of non-traditional data including Citizen Science in addressing the Sustainable Development Goals

GoToWebinar.com 735-082-707

Webcast URL #https://attendee.gotowebinar.com/register/2935397372317782019#

Dr. Steffen Fritz

Deputy Program Director, Ecosystem Services and Management (ESM), International Institute for Applied Systems Analysis (IIASA)

Dilek Fraisl

Project Manager, International Institute for Applied Systems Analysis (IIASA)

Martin Brocklehurst

Chair Policy Working Group (ECSA), European Citizen Science Association (ECSA)
Citizen Science Global Partnership (CSGP)

Libby Hepburn

Chair, SDG and Citizen Science Working Group (ECSA)
Atlas of Life in the Coastal Wilderness (Australia)

Abstract

Tracking and monitoring the implementation of the SDGs is critical for establishing progress, which requires a systematic review of the social, economic and environmental dimensions of the SDGs. As inputs, accurate, accessible, timely and spatially disaggregated data are needed. Even though data availability and quality have improved over the last decade, more data are needed to ensure that “no one is left behind”, which is a key component of the 2030 Agenda for Sustainable Development, while addressing all aspects of the SDGs. Traditional data collection methods, e.g. administrative records, statistical surveys, censuses, etc. need to be strengthened, and a much wider set of data are needed to address the SDGs. To achieve this, new, innovative ways of data production and analysis using Earth Observation (EO), mobile data, social media, sensors, etc. need to be developed and adopted. In addition to EO and other new geospatial data sets such as mobile phone data, another key source of data to support the SDGs is citizen science (CS), which is defined as the involvement of citizens in scientific research. CS can deliver data swiftly, accurately and at a level of granularity not possible with traditional data gathering methods. This session will outline the results from a workshop hosted by IIASA on 3-5 October in Austria that brought together major global citizen science associations from Europe, Africa, Asia, Australia and the US. Recommendations and best practices will be outlined to address how non-traditional data sources, citizen science in particular, can contribute to both monitoring and implementation of the SDGs. A conceptual framework will be proposed to identify how creating an enabling environment for the integration of traditional and non-traditional approaches can leverage the SDG achievement. Additionally, we will showcase examples of success stories, and demonstrate how selected indicators can be monitored via non-traditional approaches.

Session# 73 **Wed 24** **8:30 to 9:15** **45 mins** Room 2

UN Biodiversity Lab: Empowering Policymakers to Use and Apply Spatial Data

GoToWebinar.com 808-410-227

Webcast URL #https://attendee.gotowebinar.com/register/4676928133204329219#

David Jensen

Head of Environmental Cooperation for Peacebuilding; Co-Director of MapX, UN Environment (Post-Conflict and Disaster Management Branch, Policy and Programme Division,)

Anne Virnig

Knowledge Management & Capacity Building Specialist, United Nations Development Programme (UNDP)

Abstract

The UN Biodiversity Lab will be launched July 2018 as a free online platform that allows policymakers and other partners to access essential global data layers, to upload and manipulate their own datasets, and to query multiple data sets in order to be able to provide key information on the Convention on Biological Diversity's (CBD) Aichi Biodiversity Targets and on nature-based Sustainable Development Goals (SDGs). By creating a collaborative environment engaging diverse stakeholders, the UN Biodiversity Lab is an inclusive and scalable data platform. Countries will be able to use to tool to develop national and regional data summaries, undertake analyses such as evaluations of forest condition and trends, and to develop communication pieces that support biodiversity and sustainable development policy. Powered by MapX, the UN Biodiversity Lab brings together the UN Development Programme, UN Environment, the CBD Secretariat, GRID Geneva, NASA, and UN Environment-WCMC. This presentation will share ongoing projects with over 140 countries and discuss Phase 2 of the project, which plans to engage with corporate partners to provide spatial data to support deforestation-free commodity production.

Session# 52 **Wed 24** **8:45 to 9:30** **45 mins** Room 1

Environmental Communication in Visual Media

GoToWebinar.com 555-471-299

Webcast URL #https://attendee.gotowebinar.com/register/2345314770457793795#

Jim Toomey

Syndicated Cartoonist, Sherman's Lagoon

Abstract

A picture is worth a thousand words and a thousand data points. Visual media can convey information in a way that printed words and charts do not, providing opportunities for education, emotional connection, and broader public engagement. In this session, internationally syndicated cartoonist and award-winning filmmaker Jim Toomey, will demonstrate how he uses visual media such as video, animation, and cartoons in short, effective and cost-efficient ways to convey concepts to the public.

Because the technology, distribution and economics of media has changed dramatically in recent years, many organizations whose communication strategies consisted exclusively of static images and text now have an enormous palette of media choices available to them. A short video or animation can convey a complex concept or set of data in a way that a static image cannot. Video and animation also opens up a broader spectrum of audience demographics.

The advances in media technology have allowed access to production techniques in video editing and animation that were previously the exclusive domain of movie studios. And the advent of social media venues such as Facebook, Twitter and Instagram, has opened distribution channels that just a decade ago did not exist. In short, almost every organization can become a media company in one form or another. Whether it is done in-house, or through partners, understanding the process is vitally important.

Session# 28.1 Wed 24 9:30 to 10:30 1 hr Room 2

System of Environmental Economic Accounting (SEEA): Serving environmental policies for Sustainable Development and the SDGs (part 1 The SEEA Central Framework)

GoToWebinar.com 227-576-291

Webcast URL #https://attendee.gotowebinar.com/register/6132699120564448259#

Dr. Wafa Aboul Hosn (Chair)

Chief, Economic Statistics, United Nations Economic and Social Commission for Western Asia (UNESCWA)

Dr. François Soulard

Chief, R&D, Environmental Accounts and Statistics Program, Statistics Canada

SEEA Implementation in Canada

Saidi Hedi

Director General, National Institute Of Statistics of Tunisia (INS)

SEEA Water in Tunisia

Khamis Raddad

Expert, Federal Competitiveness And Statistical Authority (FCSA)

SEEA -Energy UAE

Abstract

The System of Environmental-Economic Accounting (SEEA) is an international statistical standard that integrates environmental and economic data to provide a more comprehensive and multipurpose view of the relationship between the environment and the economy. It contains the internationally agreed standard concepts, definitions, classifications, accounting rules and tables for producing internationally comparable statistics and accounts on the environment and its relationship with the economy. The SEEA is a multi-purpose system that generates a wide range of statistics, accounts and indicators with many different potential analytical applications. It is a flexible system that can be adapted to countries' priorities and policy needs.

The SEEA is comprised of two complimentary approach to measuring the relationship between the environment and the economy. One approach focuses on the measurement of individual environmental assets such as water and land, and is discussed in the SEEA Central Framework. The second approach is ecosystems based and assess how different environmental assets interact within a spatial area to provide benefits to humanity.

As an integrated framework supporting the measure of sustainable development, the SEEA plays an important role in the 2030 Agenda for Sustainable Development and the Sustainable Development Goal (SDG) indicators. Based on a 2017 UN assessment, 69 countries have programmes on environmental-economic accounting and an additional 22 countries are planning to establish one in the short term. This reflects the ever-increasing need from policy makers for integrated information on the environment and the economy in support of sustainable development.

The event is co-organized by the UN Economic and Social Commission for Western Asia and the UN Committee of Experts on Environmental Economic Accounting (UNCEEA) and has 2 sessions.

This first session will revolve around SEEA Central Framework and be organized as follows: the chair of the UNCEEA will make an overview presentation to the SEEA. The presentation will be followed by a moderated panel discussion where countries will discuss their experiences establishing environmental-economic accounting programmes— what has worked and what has not worked in the implementation of the SEEA. Panelists will discuss issues related to coordination within countries, how to best leverage the resources available at the national, regional and international level and applications of the SEEA in support of policy. This will be followed by 3 presentations from countries on specific modules (water, energy, and land accounts) of the SEEA.

Session# 69 **Wed 24** **9:45 to 10:30** **45 mins** Room 1

Enhanced Earth Science Data Discovery and Integration with Research Workbenches: the EarthCube Data Discovery Hub

GoToWebinar.com 391-353-195

Webcast URL #https://attendee.gotowebinar.com/register/3479650130509648899#

Dr. Ilya Zaslavsky

Director, Spatial Information Systems Lab, San Diego Super Computer Center/University of San Diego California

Abstract

In multidisciplinary studies researchers integrate data from multiple data sources with different terminology conventions, organization or search, format and content of metadata. Metadata aggregation and brokering help address the challenge of cross-disciplinary data discovery, but these techniques are insufficient when metadata is incomplete, non-standard, or poorly curated. To advance data discovery, the EarthCube Data Discovery Hub (DDH) presents a scalable metadata augmentation pipeline designed to improve and re-index metadata content from multiple repositories. The pipeline uses a large geoscience ontology and text analytics to assign keywords with references to ontology classes; derive spatial extents based on found place names, and to add organization identifiers. The addition of ontology-anchored keywords enables faceted browsing and lets users navigate to datasets related by additional characteristics, such as measured variables, equipment used, the science domain the dataset represents, and geospatial features described. The pipeline also generates provenance records for each enhanced metadata document, publishes the metadata using schema.org markup, and lets users validate or invalidate automatic metadata enhancements. Over 1.3 million metadata records, harvested from 30+ data repositories or contributed by earth scientists through workshops and surveys are now indexed and available for discovery through the project portal (cinergi.sdsc.edu). The augmented metadata descriptions make the discovered data easier to interpret and thus incorporate in research workflows. DDH users can start JupyterHub notebooks from any discovered resource, passing document IDs to notebooks implementing visualizations, analytical techniques or models. The interface connecting the discovery system with research workbenches is bi-directional, as catalog records can be subsequently updated with information about data usage reported by the notebooks. The approach developed by the DDH project promotes improved decision-making by streamlining the path from data discovery to reproducible data analysis, modeling, and visualization, while enabling better data re-use via standardizing and automatically enhancing metadata descriptions.

Session# 95.1 Wed 24 10:45 to 12:15 1 hr 30 mins Room 1

Introducing the Indicator Reporting Information System (IRIS)

GoToWebinar.com 829-822-683

Webcast URL #https://attendee.gotowebinar.com/register/2648419339911407107#

Erick Litswa

Programme Assistant Officer, UN Environment

Sane Aïssata

Statistician, Burkina Faso NSO

Anthony Catajan

Director, Chief Compliance Officer/GM NY Site, ADEC Innovations

Derek Gliddon

Acting Dir. Environmental Research & Innovation, Environment Agency - Abu Dhabi (EAD)

Abstract

The Indicator Reporting Information System (IRIS) is an enterprise web application intended for organizations involved in recurring environmental status and performance reporting. It is a targeted response to a set of widespread, real world challenges faced by many organizations across the world. Its main aims are to reduce the institutional burden associated with recurring report production and to provide more timely and more complete information for decision makers; in all tiers of Governance - local to global; to develop institutional capacity; and be a practical, durable and globally applicable solution. IRIS includes a shared knowledge repository through which others can share indicators, algorithms and templates for re-use.

IRIS was developed by the Environment Agency - Abu Dhabi (EAD) and UN Environment in the context of the Abu Dhabi Global Environmental Data Initiative (AGEDI) and was launched at the UN Global Science Policy Business Forum on the Environment during the third session of the UN Environment Assembly held in Nairobi, Kenya between 4-6 December 2017.

We look forward to your participation as we explore how IRIS is proving to be an innovative way to apply data and statistics to measure global progress and inform evidence based policy decisions on the 2030 Agenda for Sustainable Development.

Session# 28.2 Wed 24 10:45 to 11:45 1 hr Room 2

System of Environmental Economic Accounting (SEEA): Serving environmental policies for Sustainable Development and the SDGs (part 2 Ecosystem Accounting)

GoToWebinar.com 955-500-755

Webcast URL #https://attendee.gotowebinar.com/register/3715960468084951299#

Dr. Wafa Aboul Hosn (Chair)

Chief, Economic Statistics, United Nations Economic and Social Commission for Western Asia (UNESCWA)

Dr. Thomas Brooks

Chief Scientist, International Union for Conservation of Nature (IUCN)

Ecosystem accounting and Biodiversity

Dr. Pali Lehohla

Senior Research Associate, University of Johannesburg
Pan African Institute for Evidence - PIE

SEEA Implementation in South Africa

Jillian Campbell

Statistician, UN Environment

Ecosystem accounting and Freshwater ecosystems

Dr. Roberto Ramos

President, Brazilian Institute of Geography and Statistics - IBGE

SEEA Implementation in Brazil

Steven Ramage

Head of External Relations, Group on Earth Observations Secretariat (GEO)

Earth Observations and Ecosystem accounts

Abstract

The System of Environmental-Economic Accounting (SEEA) is an international statistical standard that integrates environmental and economic data to provide a more comprehensive and multipurpose view of the relationship between the environment and the economy. It contains the internationally agreed standard concepts, definitions, classifications, accounting rules and tables for producing internationally comparable statistics and accounts on the environment and its relationship with the economy. The SEEA is a multi-purpose system that generates a wide range of statistics, accounts and indicators with many different potential analytical applications. It is a flexible system that can be adapted to countries' priorities and policy needs.

The SEEA is comprised of two complimentary approach to measuring the relationship between the environment and the economy. One approach focuses on the measurement of individual environmental assets such as water and land, and is discussed in the SEEA Central Framework. The second approach is ecosystems based and assess how different environmental assets interact within a spatial area to provide benefits to humanity.

As an integrated framework supporting the measure of sustainable development, the SEEA plays an important role in the 2030 Agenda for Sustainable Development and the Sustainable Development Goal (SDG) indicators. Based on a 2017 UN assessment, 69 countries have programmes on environmental-economic accounting and an additional 22 countries are planning to establish one in the short term. This reflects the ever-increasing need from policy makers for integrated information on the environment and the economy in support of sustainable development.

The event is co-organized by the UN Economic and Social Commission for Western Asia and the UN Committee of Experts on Environmental Economic Accounting (UNCEEA) and has 2 sessions.

This second session will focus on ecosystem accounting and will start with a short overview presentation. It will be followed by 2 presentations on specific components of ecosystem accounting: biodiversity and freshwater ecosystems. Countries will also share experience on the implementation of the SEEA Experimental Ecosystem Accounting and demonstrate that SEEA Experimental Ecosystem Accounting can be implemented at different scales, using available data starting from the compilation of land cover/land use accounts and overlaying it with available environmental and economic information. The inter-disciplinary nature of the implementation of ecosystem accounting calls for institutional coordination in particular with the geospatial and environmental communities. The panel discussion will present the results of projects and challenges in implementation

Session# 22 **Wed 24** **11:50 to 12:15** **25 mins** Room 2

Big data for toxic exposure assessment and prevention to make a safer world for people, environment and wildlife by 2030

GoToWebinar.com 675-388-339

Webcast URL #https://attendee.gotowebinar.com/register/8091283372377498115#

Dr. Ahmad Mahdavi

Entomologist/ ecotoxicologist/ professor emeritus, University of Tehran

Abstract

Toxic exposure of people and wildlife have been increasing during the past decades due to high availability of different types of pesticides, chemicals and their metabolites. There are high possibilities of increase in toxic exposure due to recent global problems like more pollution, climate change etc. The availability of huge amount of different toxicological scientific information as big data and new analysis methods are opening new hope for better assessment of toxic exposure and possibility of preventing/ reducing these exposures. Development of new bioassays/ combined bioassays and using computer analysis systems are opening new developments in toxicology for better assessments and prevention. Big data/ mobile data for Integrated Pest Management (IPM): By using big data in SD there will be less chemicals exposure by 2030 and hopefully the problem of synthetic chemical pesticides will also be solved by that time to be substituted by more natural compounds for IPM. Employing IoT and mobile tech are providing huge possibilities for safer food production with less chemicals pollution. By employing new IoT technologies, sensitive sensors, collecting big data from chemical hazardous sites, other hazardous sites and their analysis now we are able to provide better services for conservation of nature and human health. IoT and sensors are now being coming in a very diverse sizes, forms and are widely used to collect big data e.g., in agriculture and food industry. Big data for chemicals management: The availability of different chemicals management software for chemical industries is opening a window for creating more sustainable, green, less hazardous compounds and so less harmful exposure for life and nature. According to the target 12.4: By 2020, achieving to environmentally sound management of chemicals significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and environment (http://indicators.report/targets/12-4/).

Session# 97 **Wed 24** **13:15 to 14:45** **1 hr 30 mins** Room 1+2

SDG Deep Dive

GoToWebinar.com 559-555-723

Webcast URL #https://attendee.gotowebinar.com/register/4793222378563002115#

Jillian Campbell (Chair)

Statistician, UN Environment

Dr. Enrique Ordaz

Co-chair of the IAEG-SDG,
Director General for Integration, Analysis and Research, Mexican National Institute of Statistics and Geography (INEGI)

Perspective: The global challenges to develop methodologies for the environmental indicators, the number of indicators that are still Tier III, and the experiences of Mexico in monitoring the SDGs.

Dr. Pali Lehohla

Senior Research Associate, University of Johannesburg
Pan African Institute for Evidence - PIE

Perspective: The current state of environment statistics in Africa and how new advances in technology create an opportunity to leap frog the statistical systems in even the least developed countries to monitoring the environmental SDGs.

Gemma Van Halderen

Director, Statistics Division, UN ESCAP

Perspective: The capacity of Asia and the Pacific to monitor the SDGs and on ESCAP's approach to improving environment statistics and accounting in the region.

Dr. Olivier THUNUS

Head of unit "Satellite accounts", STATEC, NSI Luxembourg Werner (CAPW)

Perspective: The difficulties in measuring climate change, even in Europe, and the current state of this work.

David Jensen

Head of Environmental Cooperation for Peacebuilding; Co-Director of MapX, UN Environment (Post-Conflict and Disaster Management Branch, Policy and Programme Division,)

Perspective: The current state of geospatial monitoring of the environment and opportunities to leverage new technologies for environmental monitoring.

Stuart Crane

Programme Manager, Freshwater SDG 6, UN Environment

Abstract

The 2030 Agenda has positioned the environmental dimension of sustainable development as part of the global development agenda for the first time. The Sustainable Development Goal framework includes roughly 90 global indicators related to the environment. At the regional and national level there is often a need for additional indicators related to the environment in order to holistically measure the sustainable development challenges within a particular regional or national context. In addition to environmental monitoring related to the SDGs, countries have also committed to reporting indicators for a host of multilateral environment agreements (MEAs).

This realization of an increased need for both nationally relevant and internationally comparable data, including geospatial data, on the environment presents both a challenge and an opportunity to build up innovative statistical systems that can produce policy-relevant data, can facilitate data access and sharing and reporting and can pull together multiple types of official and non-official data.

This session will present the current state of monitoring the environment and discuss challenges for monitoring the environmental dimension of the SDGs. It will also explore opportunities for using frontier technologies and new data sources to automate environmental monitoring process and integrate different types of data into meaningful insights for policy makers and citizens.

Jillian Campbell will moderate and provide a brief introduction to the challenges in terms of the number of environmental indicators which are still Tier III and the lack of capacity to monitor any of the indicators under particular SDG Goals. Highlighting the lack of data across Goal 12 on Sustainable Consumption and Production and Goal 14 on Oceans as two of the most noticeable gaps.

Session# 85 **Wed 24** **15:00** to **16:15** **1 hr 15 mins** Room 1+2

Brainstorming workshop – Global environmental issues at the brink of transformational information and capacity building solutions

GoToWebinar.com 981-403-851

Webcast URL #https://attendee.gotowebinar.com/register/1021434600895646979#

Glenn Harrington

Program Specialist, US Environmental Protection Agency

Rick Ziegler

International Environmental Program Specialist, US Environmental Protection Agency

Abstract

This session will seek to leverage participants' collective expertise and creativity to help solve several tough, tangible and global environmental challenges. Session goals include identification and exploration of potential information-based approaches – for example: big data analytics, crowdsourcing, geospatial mapping, block chain and open source code – coupled with capacity building. Session facilitators will introduce three to five global environmental challenges, for which we believe untapped transformational solutions await. Broadly, issue areas will include: 1) How to decrease reliance on hazardous pollutants, such as mercury, potentially by better tracing mineral supply chain data in relation to artisanal small-scale gold mining? 2) How can we better track and manage waste, including that which becomes marine litter? 3) How can we improve the environmental outcomes of development assistance, with focus on alternatives analyses and best available technologies? Session facilitators will provide a brief overview of these issues and some actionable pathways that might be explored by participants during the remainder of the session. Subsequently, session participants will form small break-out groups to explore new solutions and then reconvene to report back to the larger group. This will be a fast-paced and high-energy brainstorming session, with an eye toward catalyzing innovation, building partnerships and developing actionable strategies.

Session# 57.82 Wed 24 17:15 to 18:00 45 mins Room 1+2

Expanding the Eye on Earth Impact

GoToWebinar.com 502-068-059

Webcast URL #https://attendee.gotowebinar.com/register/971219904854216963#

Dr. Viktor Lagutov (Community Representative)

Professor / Head of Systems Laboratory, Central European University / ISEPEI Project

Dr. Costis Toregas (Community Representative)

Director, GWU Cyber Security and Privacy Research , George Washington University

Prof. Alexandre Caldas (Alliance Partner Representative)

Chief of Country Outreach, Technology and Innovation Branch, Science Division, UN Environment

Dr. Thomas Brooks (Alliance Partner Representative)

Chief Scientist, International Union for Conservation of Nature (IUCN)

Craig Hanson (Alliance Partner Representative)

Global Director (Food, Forests & Water), World Resources Institute (WRI)

Steven Ramage (Alliance Partner Representative)

Head of External Relations, Group on Earth Observations Secretariat (GEO)

Derek Gliddon (Alliance Partner Representative & NCU Lead)

Acting Dir. Environmental Research & Innovation, Environment Agency - Abu Dhabi (EAD)

Abstract

This workshop, facilitated and organized by long term members of the EoE community will seek and discuss opinions and ideas for expanding the impact of EoE. The discussion will be informed by Symposium deliberations and will take into account the successes and challenges experienced since the movement's establishment in 2011. The session will be open to all who support the EoE vision and partnership modalities: individuals, partnerships and institutions are welcome. The outcomes of this session will inform EoE Governance and strategic planning.

Characterized by its Environmental focus the EoE process has established itself as a fertile platform for knowledge exchange, for catalyzing synergy-based collaborations, project delivery partnerships and policy recommendations in the field of evidence and knowledge-based Sustainable Development. EoE has excelled in identifying systemic data, information and knowledge-related challenges faced by policy advisors, civil society and others as they seek to contribute to Sustainable Development. EoE has focused on pre-requisites that enable various environment-focused policy sectors evidence based Sustainable Development.

It is time to build on this success, align a future path with the substantial foundations laid by Environment Agency of Abu Dhabi's investments since 2011, and to develop a Roadmap for future accomplishments.

To ground the workshop in reality, two case studies will be presented by the session organizers: the growth and expansion of ISEPEI, and the development and improvement of Ecocitizen World Map (now called Urbinsight), both topics supported by EoE. In an open session for all Symposium participants, past Special Initiative and EoE project leaders will be asked to consider future modalities and areas of engagement including webinars, document repositories, research call and response coordination and ability to organize and coordinate interdisciplinary teams of experts from across geographies

Session# 100 **Wed 24** **18:00 to 18:30** **30 mins** Room 1+2

EoE Alliance Partners Meeting (Invitation Only)

GoToWebinar.com 562-739-883

Webcast URL #https://attendee.gotowebinar.com/register/2128604327159513347#

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