Post-Conference Report
ACES 2014 Wednesday Lunch Town Hall
December 10, 2014 | 12:15pm-1:20pm

Title: *Launch of the President's Climate Data Initiative Water and Ecosystem Vulnerability Themes, EcoINFORMA, and the Global Ecosystems Map*

Goals

The Town Hall meeting was an opportunity to demonstrate newly launched data and tools that will help build the resilience of our nation's ecosystems and water resources. During an ACES plenary session on the previous day (December 9, 2014), Interior Secretary Sally Jewell announced the roll-out of two new thematic data hubs of the President's Climate Data Initiative – water and ecosystem vulnerability – along with the Ecoinformatics-based Open Resources and Machine Accessibility (EcoINFORMA) website, an entry point for access to ecosystems data and a geospatial data integrator and viewer. Secretary Jewell also announced the roll out of a new map of Global Ecological Land Units. The Town Hall meeting featured presentations that provided more detail about the services that all of these tools provide and also gave an opportunity for audience members to provide initial feedback on the tools.

Presentations

- An introduction to the Climate Data Initiative (Olivia Barton Ferriter, Department of the Interior)
- The water theme of the Climate Data Initiative (Nate Booth, USGS)
- EcoINFORMA and the EnviroAtlas, BISON, and MRLC data hubs (Dr. Stinger Guala, USGS and Anne Neale, EPA)
- The Global Ecosystems Map (Dr. Roger Sayre, USGS and Dr. Dawn Wright, Esri)
- A stakeholder perspective on the federal government's initiatives to provide information for improving ecosystem resilience (Mary Klein, NatureServe)

The President's Climate Data Initiative (CDI) is an interagency effort to build an online catalog of data products (www.data.gov/climate/) to help the Nation prepare for the impacts of climate change. Olivia Ferriter provided an overview of the CDI and the two thematic CDI hubs that were launched by Secretary Jewell – ecosystem vulnerability and water. The data hubs feature hundreds of datasets from USGS, Bureau of Reclamation, EPA, NOAA, USDA, NASA, and many other agencies. Nate Booth then provided more detail on the water theme, which has made over 80 federal datasets available that provide information on the hydrologic cycle, climate change impacts on water supply, and future uncertainties associated with water supply.

Dr. Stinger Guala and Anne Neale then provided an overview of the Ecoinformatics-based Open Resources and Machine Accessibility (EcoINFORMA) website (www.data.gov/ecosystems/), which was also formally launched during the ACES conference. EcoINFORMA is the strategy for mobilizing and integrating Federal environmental data as recommended in the President's Council of Advisors on Science and Technology's 2010 report on "Sustaining Environmental Capital." EcoINFORMA consists of three thematic hubs that were demonstrated during the Town Hall meeting. The Biodiversity Information Serving Our Nation (BISON) hub builds on citizen science and professional science activities by providing more than 168 million primary records of plant and animal occurrences across the U.S. The EnviroAtlas hub is a collection of interactive tools and resources that allow users to explore the many benefits people receive from nature. The Multi-Resolution Land Characteristics Consortium (MRLC) hub

includes the National Land Cover Database (NLCD) which serves as the definitive Landsat-based, land cover database for the Nation, providing descriptive data on the characteristics of the land surface. After these individual hubs were demonstrated, Dr. Guala demonstrated the EcoINFORMA viewer, which has the ability to "mash-up" data layers from the data hubs.

Dr. Roger Sayre and Dr. Dawn Wright then gave an overview of the new Global Ecological Land Units map, which was developed through a public-private partnership between USGS and Esri. These global ecosystems were commissioned by the Group on Earth Observations (GEO) as part of the Global Earth Observations System of Systems (GEOSS) intergovernmental protocol. Ecosystems were developed as an integration of global bioclimate regions, global land forms, global geology, and global land cover. The presentation provided a detailed description of the new global ecosystems map product, which portrays nearly 4000 distinct terrestrial ecosystems of the Earth. Such a map, and more importantly, the data, will provide scientific support for planning and management, and enable understanding of impacts to ecosystems from climate change and other disturbances. The map and data should also prove useful as an ecologically meaningful spatial accounting framework for assessments of the economic and social values of ecosystem goods and services. Hardcopies of the anchor publication explaining the methodology behind the map were made available to members of the audience, as well as how to access the map and data via ArcGIS Online (http://esriurl.com/elu and http://esriurl.com/EcoTapestry), which also seeks to be interoperable with EcoINFORMA and www.data.gov/climate.

Finally, Mary Klein of NatureServe expressed the importance of strong partnerships between the federal government, private sector, and NGOs in effectively delivering data, tools and services to the nation for increasing the resilience of our ecosystems. She cited the collaboration between USGS and Esri in developing the Global Ecological Land Units map as an example. She encouraged further engagement by stakeholders with the federal government in order to enhance the benefits of federal data and information.

Discussion

There was some discussion about keeping the Global Ecosystems Map up-to-date, given the many layers of data that were used for its development. There were also questions and some discussion about how the tools that were presented could be used for educational purposes. BISON has partnered with many schools that have collected and contributed data to BISON as part of their larger curricula. EnviroAtlas has also conducted webinars for teachers, for example through the National Science Teachers Association, to demonstrate the tool and suggest ways that it can be incorporated into science curricula. Esri has been involved in several massive open online courses (MOOCs) in geospatial technology and spatial analysis, and is interested in partnering with USGS and others on future offerings about ecosystems, employing the new Global Ecological Lands Units as well as EcoINFORMA, CDI, and NatureServe products.

Participants were invited to another room after the Town Hall meeting for an opportunity to ask presenters additional questions and engage in further discussion.

Summary

During the Town Hall meeting, a number of new tools were demonstrated that represent a wealth of information across the federal government and government partners. Participants were encouraged to

visit the websites, visit the ACES 2014 exhibit tables to see demos and discuss partnerships, and continue providing feedback on the newly launched tools.

Speakers

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