**Session Information**

**Oral Sessions**
Sessions are being held in the Convention Center (CC) and Marriott Marquis (MM)

**Poster Sessions**
Posters are on display in the following venue throughout the week: Hall A-C (Poster Hall)

**Session & Paper Numbering**

Paper Numbers - A paper number designates the section, or other sponsoring group, and chronology of the presentation. Example: A21A-01 = Atmospheric Sciences, Tuesday, AM, concurrent session A, first paper in that session.

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The program is current as of 05 December 2018. An omitted abstract ID number in the presentation order indicates that the abstract has been withdrawn by the presenter from the session. Please refer to the online program at [https://agu.confex.com/agu/fm18/meetingapp.cgi/Home](https://agu.confex.com/agu/fm18/meetingapp.cgi/Home) for updates.

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**Friday A.M.**

**GC51F (CC) Hall A-C (Poster Hall)**

**Friday 0800h**

Application of Forest Change Mapping and Error Estimation to Forest Carbon Financing Mechanisms and Rural Development Posters (joint with PA, SI)

**Presiding:** Africa Flores Cordova, University of Alabama in Huntsville; Juliann Aukema, US Agency for International Development; Evan Notman, US Agency for International Development; Sylvia Wilson, United States Geological Survey;

0800h **GC51F-0845** POSTER Mapping and monitoring fractional woody vegetation cover in the arid savannahs of northern Namibia using machine learning, LiDAR and SAR data.: K Wessels, F van den Bergh, R Mathieu, N Knox, R Main, L Naidoo, K Steenkamp
0800h GC51F-0846 POSTER Study on monitoring afforestation with Landsat time series images over Loess Plateau: J Guo

0800h GC51F-0847 POSTER An 1km global forest aboveground biomass map generated from multiple satellite products and ancillary information: L Yang, L Shunlin, Y Zhang

0800h GC51F-0848 POSTER Criteria To Confirm Deforestation Simulation Models For Carbon Offset Projects: R G Pontius Jr

0800h GC51F-0849 POSTER Drivers of Deforestation in Peru: Impacts of Public and Private Governance: C Anderson, E Lambin, G P Asner


0800h GC51F-0851 POSTER Quantifying the influence area of log decks in selectively logged areas in the Amazon with airborne lidar data: M N dos-Santos, E R Pinagé, M Longo, M A Scaranello Sr, M Hunter, D C Morton, M M Keller

0800h GC51F-0852 POSTER Quantifying the Trade-off Between Cost and Precision in Estimating Area of Forest Loss Using Probability Sampling in Guyana: J Pickering, S V Stehman, A Tyukavina, P Potapov, P Watt, S Jantz, P Bholanath, M Hansen

0800h GC51F-0853 POSTER Supporting silvo-pastoral NAMAs through satellite monitoring of livestock-forest interactions: deforestation, degradation, and regeneration: R M Roman-Cuesta, E Hamunyela

0800h GC51F-0854 POSTER Wooden-building Life Cycle Carbon Footprint and Forestry Carbon Sink Assessment: K H Li, C R Chiou

0815h PA51A-02 Leveraging King Tides and Citizen Science to Prepare for Coastal Flooding in Puget Sound, Washington State: I M Miller, D Wilkinson, B Trosin, C Jayne

0830h PA51A-03 Failing to Communicate – The “Hundred-Year” Flood Concept: V R Baker

0845h PA51A-04 Multi-scale Geomorphic Visualization to Understand, Manage, and Communicate Local Flood Hazards: a Geomorphologist’s Perspective: A D Nelson, K Boyd, K V Dube


0915h PA51A-06 Nepal Flood 2017: Lessons Learned and Opportunities to improve Flood Risk Management of Nepal: M Upprey, D Bhandari, G Ghimire, B Kumal, L Pokharel, P Khadka

0930h PA51A-07 Informing Flood Risk Reduction, De Soto, Missouri: D M Hanes, R B Jacobson, A Cox, S O Erwin, B Baer, J Festing

0945h Discussion:

PA51B (CC) Hall A-C (Poster Hall)

Friday 0800h

Enhancing Environmental Management Decisions, Actions, and Policy by Building the Capacity to Use Earth Observations Posters

(joint with B, GH, NH)

Presiding: Lauren Childs-Gleason, NASA DEVELOP Program - Wise County; Kenton Ross, NASA DEVELOP Program; Nancy Searby, NASA Headquarters; Christine Mataya, NASA Headquarters;

0800h PA51B-0770 POSTER Capacity Building for the Utilization of Earth Observations among Utility Providers in Support of the GEO Vision for Energy: N Sadoff, T Maslak, A Leibrand

0800h PA51B-0771 POSTER Mission Control for Earth – Converting Earth System Science into Actionable Information: J Kessler

0800h PA51B-0772 POSTER Socioeconomic Impacts of the Satellite Enhanced Snowmelt Flood Predictions in the Red River of the North Basin: R Schroeder, S Lim, Y Ge, X Jia, J M Jacobs

0800h PA51B-0773 POSTER Integrated Earth and Socioeconomic Data to Enable Decisions for Disaster Preparedness and Response: R R Downs, R S Chen, G Yetman, S Vinay, K MacManus
0800h  **PA51B-0774 POSTER** Experiences and Perspectives in Supporting NASA DEVELOP Projects as a Science Advisor: **J Spruce, K W Ross, J D Bolten**


0800h  **PA51B-0776 POSTER** SERVIR-Africa: Capacity building to enhance resilience to water and water related disasters in emerging regions: **T L Yami, R A Clark, L G Labriola, Z Flamig, J J Gourley, F Mathieu, D Mandl, Y Hong**


0800h  **PA51B-0778 POSTER** Satellite Ocean Color Observations from NASA's PACE Mission: addressing environmental challenges and enhancing environmental management decisions: **M Tzortziou, A H Omar, W W Turner**

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**PA51C  (CC) Hall A-C (Poster Hall)**

**Friday  0800h**

**Native Science to Action: How Indigenous Perspectives Inform, Diversify, and Build Capacity in Environmental Science and Policy**

**Posters** (joint with GC, GH, H)

**Presiding:** **Ryan Emanuel**, North Carolina State University Raleigh; **Karletta Chief**, University of Arizona; **Daniella Scalise**, NASA Astrobiology Program; **Dominique David-Chavez**, Colorado State University;

0800h  **PA51C-0779 POSTER** Water in the Native World: An intersection of Indigenous Water Knowledge and Hydrologic Sciences: **K Chief, R E Emanuel, O Conroy-Ben, R Torres, S Pete**

0800h  **PA51C-0780 POSTER** ASSESSING DATA AND INFORMATION PRIORITIES FOR Enhancing CLIMATE ADAPTATION ON RESERVATION LANDS: **H Fillmore, L Singletary**

0800h  **PA51C-0782 POSTER** Alaska Arctic Observatory & Knowledge Hub: Community-based Observations of Changes in the Seasonal Cycle in Alaska's Arctic: **J Jones, D Hauser, O A Lee, H Eicken, B Adams, S Patkotak, J M Leavitt**

0800h  **PA51C-0784 POSTER** Braiding Pine: Weaving Traditional Knowledge, Community Need, and Scientific Method in Sierra Nevada Meadow Restoration.: **A K Keeble-Toll**

0800h  **PA51C-0785 POSTER** Indigenous perspectives on agricultural land use change in the Chiapas Highlands: A discussion of cultural identity and pride for Mayan coffee and flower growers.: **M M Sanchez-Luna**

0800h  **PA51C-0786 POSTER** Informing NASA's Indigenous Peoples Capacity Building Pilot Project through collaborative storytelling and systems mapping: **C Schmidt, A J K McCullum**

0800h  **PA51C-0787 POSTER** Introducing Earth System Science at Leech Lake Tribal College: Student Research Initiatives and Indigenous Perspectives: **M O Neville**

0800h  **PA51C-0788 POSTER** Native Waters on Arid Lands: Enhancing Climate Resilience on Tribal Lands: **M McCarthy, K Bocinsky, C Albano, M D Dettinger**

0800h  **PA51C-0789 POSTER** Produced Water Management in the Arid West: Assessing Effectiveness of Management Regimes and Impacts to Tribal Waterways: **G Bulltail**

0800h  **PA51C-0790 POSTER** Statistical Power of Federal Environmental Justice Analyses: **R E Emanuel, L Rivers III, G B Blank**

0800h  **PA51C-0791 POSTER** Tackling water contamination issues in Indigenous communities using silica polyamine composites and the implementation of traditional knowledge and western science.: **R L Tsosie, E Rosenberg**

0800h  **PA51C-0792 POSTER** Tribal Climate Change Adaptation Planning: A Cross-Case Analysis of Strategies, Partnerships and Decision-Making Processes: **L Rae**

0800h  **PA51C-0793 POSTER** What Not to Do when Working with a Tribe: Lessons from Ground Zero of Climate Change: **A Weyiouanna, E Marino**

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**PA52A  (MM) Marquis 1-2**

**Friday  1020h**

**Learning by Doing: Building Community Resilience Through Climate Assessment I** (joint with GC, SI)

**Presiding:** **Kristin Lewis**, US Global Change Research Program, Contractor; **Allyza Lustig**, US Global Change Research Program;
1020h  PA52A-01 Toward Climate-Safe Infrastructure in California: Closing the Gap Between Climate Science, Decision-Making and Engineering: S C Moser

1035h  PA52A-02 The Ouranos 2015 Synthesis on Climate Change Knowledge in Quebec: The Journey of a Regional Contribution to an Ensemble of Complementing Climate Change Assessments.: H Côté, R Siron, T Logan, I Charron

1050h  PA52A-03 Climate change in the Hoosier State: Using an impacts assessment to expand awareness and start the conversation in Indiana: J S Dukes, M Widhalm

1105h  PA52A-04 Use and Synthesis of the Third National Climate Assessment for the Great Lakes Region: J L Jorns, M C Lemos, W J Baule, L Briley

1120h  PA52A-05 Knowledge co-production helps a national assessment to have local relevance in the Pacific Islands: Z N Grenci, V W Keener

1135h  PA52A-06 The Use of NCA3 Sea Level Rise Projections in Public-facing Reports and Tools: K Dahl, E Spanger-Siegfried, A Caldas, S Udvardy, R Cleetus

1150h  PA52A-07 Locally relevant, science-based tools and information to help communities and businesses build climate resilience: D Herring, F Lipschultz

1205h  PA52A-08 Enhancing Resilience in Sub-Saharan Africa through Climate Vulnerability Assessments: T Blaine, A A Apotsos

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**PA52B**  (MM) Marquis 3-4

**Friday 1020h**

**Science to Action: Accelerating Innovation of Applied Climate Science for Risk Reduction and Resilience—A New Role for the Sustained National Climate Assessment**

*Presiding: Richard Moss, Joint Global Change Research Institute; Anne Waple, Self Employed;*

1020h  PA52B-01 Aligning Sustained Climate Assessment with the Needs of Climate Action: R H Moss

1035h  PA52B-02 Practitioner’s Perspective: Building Resilience Through Science and Action: M Stults, K Baja

1050h  PA52B-03 A City Perspective on Applied Climate Assessment: D Zarrilli

1105h  PA52B-04 Evolution of the Sustained Assessment Process to Meet National Needs: J M Melillo

1120h  PA52B-05 Sustained Assessment Specialists: Building a Network for Regional Assessment: B Duncan, U K Rick, L Dilling, Z N Grenci, L Kos

1135h  PA52B-06 Assessing Climate Information in Use Context: A D Jones, K Geil, K A Jagannathan

1150h  PA52B-07 How can citizen and community science support the goals of a sustained national climate assessment?: R M Meyer, R Pandya, R Kreutter, K Geil

1205h  PA52B-08 A Vision for Windstorm Impact Reduction in the United States: S J Weaver

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**U52A (CC) 202A**

**Friday 1020h**

**Geoscience Impact in a Complex World: Successful Collaboration with Social Scientists**

*Virtual Session* (joint with GC, NH, PA, SI)

*Presiding: Margaret Goud Collins, Friends of IIASA; Margaret Palmer, National Socio-Environmental Synthesis Center (SESYNC), Univ of MD; Carrie Hritz, National Socio-Environmental Synthesis Center (SESYNC), Univ of MD; Fabian Wagner, IIASA International Institute for Applied Systems Analysis;*

1020h  Introductory Remarks:

1025h  U52A-01 Integrating the Social Sciences at the Institutional Level: Examples from the USGS, Science Magazine, and the National Academy of Sciences: M K McNutt

1045h  U52A-03 Achieving a Sustainable and Equitable Future for all on a Stable and Resilient Planet: Science-based Participatory Processes for Harnessing Disruptive Technologies and Lifestyles: A V Jaarsveld, N Nakicenovic, P Kabat

1055h  U52A-04 Climate Uncertainty, Ecological Resilience, and Robust Water Management: Climate Adaptation as a Mechanism for Long-Term Sustainability: J Matthews

1105h  U52A-05 Forging Public-Private Partnerships on a Journey from Global Integrated Assessment Models to Real World Technology Transition: H Hummel

1115h  U52A-06 Crossing to Safety: Making the Transition from Geoscience to Policy Using Social Science: D Goldston

1125h  U52A-07 Moving beyond sound science to achieve conservation: How social drivers and policies enhance the effectiveness of economic incentives: B Gold

1135h  Panel Discussion:

1215h  Concluding Remarks:
Insights from the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Assessments (joint with B, ED, GC, SI) (cosponsored by EGU: European Geosciences Union) 

Presiding: Brian Klatt, Michigan State University; Clifford Duke, Ecological Society of America;

1230h Welcoming Remarks:
1235h The Findings of the Intergovernmental Science Policy Platform for Biodiversity and Ecosystem Services (IPBES) Regional Assessments: R. Watson
1241h The IPBES Assessment Process – Perspective from the U.S. Focal Point: S R. Weiskopf
1247h Indicators, Information Gaps, and Monitoring Opportunities for a Global Assessment of Biodiversity and Ecosystem Function: W Jetz
1253h Perspectives from IPBES fellows on the assessment process: L M. Thompson
1259h Ecosystem Services and/or Nature’s Contribution to People?: S Polasky
1305h Nature’s Contributions to People: Challenges and Opportunities in Evaluating and Mapping Mitigation of Natural Hazards: K A Brauman, K Arkema, B B Mirus
1311h Linking Nature’s Contributions to People to Human Wellbeing in the Americas: S Fennessy, C S Seixas, C B Anderson, B Herrera, J Diaz-Jose, M Hernandez
1317h The IPBES land degradation and restoration assessment: Key findings, lessons learned, and advice for policymakers: M D. Potts
1323h Discussion:
Friday P.M.

**B53F (CC) Hall A-C (Poster Hall)**

**Friday 1340h**

**Forensic Geology: From Crime Scene to Courtroom Posters** (joint with GH, PA, SI, V)

*Presiding:* Ian Saginor, Federal Bureau of Investigation; David Szymanski, Bentley University; Christopher Bernhardt, USGS; Jack Hietpas, Pennsylvania State University;

1340h **B53F-2130**  **POSTER** Forensic Geology: Criminal, Regulatory, and Civil Applications: E M Peters, M Bottrell, I Saginor

1340h **B53F-2131**  **POSTER** The Geo forensic Search Strategy: Methods and Procedures to Locate Concealed and Buried Targets Associated with Homicide, Terrorists or Serious and Organized Crime: L J Donnelly, M Harrison


1340h **B53F-2133**  **POSTER** Forensic Examination of Soil on a Shovel to Narrow the Search for a Clandestine Grave Along a Transcontinental Path: J Webb, D A Korejwo, D A Willard, C E Bernhardt, M Bottrell

1340h **B53F-2134**  **POSTER** Assessing the suitability of sediment provenance techniques for the forensic analysis of soil evidence.: J Hietpas, J Buscaglia, G B McMahon, L A Stern

1340h **B53F-2135**  **POSTER** Soil spectroscopy for geographic attribution in forensic science: J Sanderman, S R, S Dangal, R R Ferguson, J Webb, L Stern, D Wysocki

1340h **B53F-2136**  **POSTER** Instrumental Color Measurement for Soil Forensic Analysis: I Saginor, C Dong, J Webb, M Bottrell, B Lee, L Stern

1340h **B53F-2137**  **POSTER** Advantages of Mineral Grain Analysis in Forensic Soil Investigations: Case Studies from North Carolina, United States: H D Hanna, X Liu, S Singletery

1340h **B53F-2138**  **POSTER** Selection and spatial analysis of USDA-NRCS soil survey map units by soil color for forensic investigations: C Dong, L Stern, D Beaudette, J Nemecek, C Ferguson

1340h **B53F-2139**  **POSTER** Determining the Presence of Remains Using the Chemical Composition of Burned Cadaver Ash: M J Richardson, S P Baker, M Snow, R R Skelton

**PA53A (MM) Marquis 3-4**

**Friday 1340h**

**Native Science to Action: How Indigenous Perspectives Inform, Diversify, and Build Capacity in Environmental Science and Policy I** (joint with GC, GH, H)

*Presiding:* Ryan Emanuel, North Carolina State University Raleigh; Karletta Chief, University of Arizona; Daniella Scalise, NASA Astrobiology Program; Dominique David-Chavez, Colorado State University;

1340h **PA53A-01** The Living Indigenous Network of Knowledge (LINK) - Bringing Indigenous Science and Contemporary Science Together for a Better Future of Planetary Health: J Waterhouse

1355h **PA53A-02** Working Together to Increase Inclusion of Indigenous Perspectives in Arctic Research and Policy: L Sheffield, K Erickson, R H Rich, A Shethwala, H V Wiggins

1410h **PA53A-03** Dine’ Worldviews driving assessment of environmental and human Impact of the Gold King Mine Spill on Navajo Agricultural Communities: D C Yazzie, K Chief, P Beamer, J Ingram, D Billheimer, M Begay JR, N Teufel-Shone

1425h **PA53A-04** SEVERED AT THE HEAD: TOWARDS REVITALIZING THE MAURI (LIFE-FORCE) OF TE AWA O TE ATUA: D C Hikuroa

1440h **PA53A-05** Karst Ethnogeology in Puerto Rico and Dominican Republic: Local Interpretations of Features and Processes: A A Garcia Jr, S Semken, E Brandt

1455h **PA53A-06** Indigenous Feminist Environmental Resistance and Leadership: P L Blanchard

1510h **PA53A-07** A Tribal College Experience - Growing a Native Environmental Scientist at Northwest Indian College: A Yazzie, E S Norman
1525h PA53A-08 Resilience, Sustainability, and Indigenous Communities: Knowledges in Dialogue for Environmental Research, Assessment, and Planning: A Martinez, S C Rainie, D B Ferguson

PA53B (CC) Hall A-C (Poster Hall)

Friday 1340h

Learning by Doing: Building Community Resilience Through Climate Assessment Posters (joint with GC, SI)


1340h PA53B-0795 POSTER Coastal Resilience Mapping with Local Communities in Alaska’s North Slope: Establishing Observing Networks and Usability in the Process: M Brady

1340h PA53B-0796 POSTER Implementation of climate change adaptation actions on western U.S. national forests: J Halofsky, D L Peterson

PA53C (CC) Hall A-C (Poster Hall)

Friday 1340h

Science to Action: How Hydrologists and Residents Can Work Together to Reduce the Impact of Flooding Posters (joint with GC, H, NH, OS)

Presiding: Thomas Herrington, Monmouth University; Sarah Wilkins, American Geophysical Union; Susannah Erwin, US Geological Survey; Harriet Festing, Flood Forum USA;

1340h PA53C-0801 POSTER Factors Influencing Flood Risk: A Study of Connellsville, Pennsylvania: B C Hedin, M Hill, R Tisherman, M Copeland, A Price

1340h PA53C-0802 POSTER Flood Risk Assessment from Dam Failure based on 2007/60/EC European Flood Directive: A case study on Kelefnas Dam in Greece: G Kourakos, K Nikolaou, C Andriopoulos, M Gkini

1340h PA53C-0803 POSTER Enhancing community engagement and resilience: Reducing the socio-economic impacts of flooding in Pakistan: K Khalid, S Sumi

PA54A (MM) Marquis 3-4

Friday 1600h

Enhancing Environmental Management Decisions, Actions, and Policy by Building the Capacity to Use Earth Observations I (joint with B, GH, NH)

Presiding: Lauren Childs-Gleason, NASA DEVELOP Program - Wise County; Nancy Searby, NASA Headquarters; Kenton Ross, NASA DEVELOP Program; Christine Mataya, NASA Headquarters;

1600h Introductory Remarks:

1605h PA54A-01 Building Capacity for Data Driven Decision Making with USAID: J M K Campbell


1623h PA54A-03 Capacity Building in Earth Observation: from Outcomes to Impact and Sustainability: F F D van der Meer, N D Searby, J Teuben, T Loran, D Irwin

1632h PA54A-04 Lessons and Challenges for New User Development for NASA Earth Observation Data: K Yuen, E Podest, M R Gunson, R Mueller


1650h PA54A-06 Harnessing Earth Observations to Support Indigenous-led Land Management: K Tabor, P Dunne, J H Hewson, C Martinez, E Mendoza, C Rosero


1723h PA54A-09 Sustainable capacity building approach on the use of Earth observation data: Experiences from HKH: M A Matin, R B Thapa, B Bajracharya

1732h PA54A-10 Preliminary Impacts of Software Development Courses for Earth Science Community Members: K D Moore, K W Ross

1741h Lightning Talks for Session Posters:
1756h Discussion:

PA54B  (MM) Marquis 1-2

Friday  1600h

International Science Addressing Global Agenda 2030

Presiding: Gordon Mcbean, University of Western Ontario; Vaughan Turekian, National Academy of Sciences; Pavel Kabat, IIASA International Institute for Applied Systems Analysis;

1600h PA54B-01 Disaster-related Science Diplomacy to Support Implementation of the UN Sendai Framework Targets: Y Y Kontar

1612h PA54B-02 Value and impact of international science in supporting the implementation of the Global Agenda 2030 - with a special focus on risk reduction, adaptation and urban resilience: N Nakicenovic, J Birkmann

1624h PA54B-03 Future Seamless Data-Processing and Forecasting System: Achieving United Nation Sustainable Development Goals and Improving Nations Readiness through Continuous Global Science and Technology Advancements: G A Mcbean, M Jean

1636h PA54B-04 Paradigm Shift in Disaster Science: Transdisciplinary System Analysis with Action-Oriented Research: A Ismail-Zadeh, S L Cutter, K Takeuchi, D Paton

1648h PA54B-05 Accelerating Societal Benefit from International Science Addressing Global Agenda 2030: W H Hooke

1724h PA54B-08 Vision to Action: The role of co-designed research in advancing progress toward the Sustainable Development Goals: J Tewksbury, A Luers

1736h PA54B-09 International Research Opportunities to Help Address Global Agenda 2030: M E Uhle

1748h PA54B-10 United Nations Decade of Ocean Science for Sustainable Development: C N McLean