



# UNEP RONA

## NEWSLETTER

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Photo: NOAA

### I. Good to Know

p.2

- U.S. Senate confirms Kathryn Sullivan as administrator of NOAA
- Obama picks veteran scientist to lead USGS
- U.S. Council on Environmental Quality Chair stepping down
- Americans using less fuel says University of Michigan report
- U.S. to join new \$280 million forest fund
- U.S. launches major four-year energy review as part of climate change plan
- Secretary Kerry announces new time frame for International Oceans Conference
- Obama Administration adjusts strategy for battling global warming
- U.S. Supreme Court appears split on EPA greenhouse gas powers
- U.S. To Appoint Arctic ambassador
- U.S. Congressman and Champion of the Environment Henry Waxman retires
- NOAA issues Annual Arctic Report Card
- U.S. Congress passes omnibus 2014 budget
- Senators form group to support climate action
- President Obama highlights climate change in State of Union Address
- Rising sea damage will be more expensive than defensive walls

- Report states U.S. Administration can tackle climate change by taking measures that do not require congressional approval

### II. UNEP on the Ground

p.7

- North American Major Groups and Stakeholders Consultation
- UNEP Executive Director addresses international climate legislators at Capitol Hill Summit
- UNEP features new video on Sea Level Rise at high-profile Climate Conference
- NARSPAC and RONA host Sustainable Consumption and Production workshop
- U.S. State Department, EPA and RONA convene briefing on global Alliance to Eliminate Lead Paint
- China and Singapore describe Arctic interests in closed Washington session
- UNEP's Success with Partnerships and Initiatives Highlighted at Yale Conference
- Officials discuss global implications of rapidly changing Arctic at RONA/CSIS event
- Marine Plastic Pollution Legal and Policy Solutions Workshop
- Expert Panel Helps Drive IPBES Strategy Forward to 2014

### III. Science

p.13

- Climate change shifting global rainfall trends
- NOAA finds 2013 tied for fourth warmest year on record
- Americans open to action on warming states survey
- New survey finds much higher U.S. methane emissions, with oil and gas the likely culprit
- November 2013 was warmest in recorded history – NOAA
- Nutrient runoff harms corals, but reducing pollution can reverse trends
- Arctic may warm 13 C by end of the century
- Starting then stopping geoengineering could dangerously accelerate climate change
- Lakes decline reflects climate change
- A warming planet will soon produce scattered but more severe and lasting water shortages
- Major experiment probes mystery of massive underwater waves that help transfer ocean heat

### II. On the Calendar

p.16

- World Environment Day
- World Oceans Day



## U.S. Senate confirms Kathryn Sullivan as administrator of NOAA



Photo: NOAA.gov

The U.S. confirmed confirmed Kathryn D. Sullivan as under-secretary of commerce for oceans and atmosphere. In this capacity, she will serve as the 10th administrator of the National Oceanic and Atmospheric Administration – the nation’s top science agency for climate, oceans, and the atmosphere. “With her impressive background as a scientist and astronaut and her excellent record of building bridges between diverse environmental stakeholder communities and federal policymakers, Kathy brings a great blend of scientific rigor, team-building skills, and strategic sensibility to the important job of NOAA administrator,” said John P. Holdren, assistant to the president and director of the White House Office of Science and Technology Policy.

## Obama picks veteran scientist to lead USGS

Suzette Kimball was nominated by President Obama to lead the U.S. Geological Survey. She is no stranger to this premier science agency that conducts research and works to minimize loss of life from incidents like natural disasters, having worked for the agency for the past 15 years and now serving in the position of Deputy Director. If

she confirms this position, she will oversee 8,000 staff, covering 400 locations across the United States. Kimball’s past experience includes being a Chief Scientist and Southeast Associate Regional Director of the National Park Service, as well as Research Coordinator for the Park Service’s global impact change program.

## U.S. Council on Environmental Quality Chair stepping down

Nancy Sutley left her Council on Environmental Quality (CEQ) post in February - marking an almost complete turnover of President Obama’s top environment and energy team. Sutley has held this White House post since the beginning of the Obama Administration. She was a low profile but diligent official who played an important role in several of the Administration’s environmental initiatives, including establishing landmark fuel efficiency standards, the U.S. Climate Action Plan and the comprehensive National Oceans Policy. The White House has not yet named Sutley’s replacement.

## AMERICANS USING LESS FUEL SAYS UNIVERSITY OF MICHIGAN REPORT



Photo: Flickr/freetatouk

According to a report by the University of Michigan Transportation Research Institute (UMTRI), American drivers are using less fuel, people are travelling shorter distances, and car ownership is decreasing. Total fuel consumption went down by 11 percent in seven years, while in 2011 light-duty vehicles used 123.9 billion gallons of gasoline in 2011, compared to 138.8 billion gallons in 2004. Fuel consumption rates hit a high in 2003 and 2004, and fell by a dramatic 11 to 17 percent by 2011. While some of the decrease in fuel use can be attributed to the increasing regulation to make vehicles more efficient, there is still a decrease in the distance travelled by the average person. Contrary to the popular belief that energy use goes up as efficiency increases, people have been driving less even though fuel efficiency has been increasing.

## U.S. to join new \$280 million forest fund



Photo: Flickr/cusimanta

The United States has joined the 'BioCarbon Fund Initiative for Sustainable Forest Landscape.' The State Department pledged \$25 million at the Warsaw climate talks on 20 November to the BioCarbon Fund Initiative for Sustainable Forest Landscapes that will provide incentives to developing countries that are taking steps to limit the chopping and razing of trees under the UN's Reducing Emissions from Deforestation and Forest Degradation program, or REDD+. The U.S. is the new fund's smallest national donor, compared with a contribution of \$135 million from Norway and \$120 million from the UK.

## U.S. launches major four-year energy review as part of climate change plan

President Obama kicked off a sweeping report intended to be a road map for the country's future energy goals on 9 January. He signed a memorandum directing Federal agencies to work on a Quadrennial Energy Review (QER), a four-year policy plan as part of the broader climate change plan he announced in June 2013. He directed an interagency task force to deliver the first report to him by 31 January 2015 and to focus on the development of a national strategy surrounding energy infra-

structure. It will serve as a road map to help address challenges of the transformations in energy supply, markets, patterns of end use, issues of aging and capacity, impacts of climate change and cyber and physical threats. Energy Secretary Ernest Moniz, whose Agency is providing analytical support to the QER, said the first review of energy policy will feature a heavy focus on the lack of pipelines and related infrastructure to transport oil and natural gas from relatively new shale deposits in the U.S.

## SECRETARY KERRY ANNOUNCES NEW TIME FRAME FOR INTERNATIONAL OCEANS CONFERENCE

Calling climate change a major threat to oceans' health at the World Ocean Summit in California on 25 February, Kerry announced a new time frame for International Oceans Conference, which was originally planned for the Fall of 2013 and was postponed due to the U.S. Government shutdown. The three main topics of the conference, as initially envisioned, were sustainable fisheries, marine pollution and ocean acidification. UNEP was invited earlier to speak about its work on land-based sources of pollution (specifically nutrients) under the Global Programme of Action, and will likely be invited again. The conference will take place this summer, but specific dates have not yet been announced.

## Obama Administration adjusts strategy for battling global warming

The U.S. Administration made some adjustments to increase its efforts in attacking climate change at home and overseas. At home, President Obama announced that he would ask Congress for \$1 billion in new funding for climate change research and adaptation, tying warming temperatures to the drought in California. Abroad, Secretary of State John Kerry in



Photo: Flickrmarcovitz

Jakarta strongly denounced climate deniers and outlined a new joint emissions plan with China. In contrast to earlier statements that he would work around Congress using his existing authority, the President said he will ask Congress for the money as part of his fiscal 2015 budget request to Congress early in March. He said the new fund would go for research into the effects of climate change and to help local communities prepare for them as well as to help develop technologies and infrastructure to manage risks of climate change. Kerry announced that the U.S and China had agreed on how to implement initiatives on heavy-duty vehicle emissions, smart grid technology, carbon capture and storage, emissions data and energy efficiency of buildings and industry.

## U.S. Supreme Court appears split on EPA greenhouse gas powers

Responding to a host of legal challenges to EPA's actions to regulate greenhouse gases, claiming that the Agency has gone too far in its regulations under the Clean Air Act on power plant and factory emissions to control global warming, the Court heard initial statements in the case on 24 February and appeared split in its early consideration. Liberal justices seemed ready to defer to the Agency's interpretation about how to protect the environment from GHG emissions, while Conservative justices were skeptical of how the Agency

had to essentially rewrite some of the law's requirements to avoid "absurd" results. But the justices also wondered whether their eventual decision would make much difference in the long run. Both sides had agreed earlier that the EPA has the power to regulate GHGs, but they differed on how the Agency should go about it. In the end, they appeared to agree their ruling would make only a small difference as the number of facilities that would be regulated was so small. The Court is expected to make a final ruling later in the year.

## U.S. TO APPOINT ARCTIC AMBASSADOR

In an indication of the growing importance of the northern region, Secretary of State Kerry announced on 14 February that he would appoint a "senior official of stature" as Special Envoy to the Arctic to advance American interests as the U.S. prepares to chair the eight-country Arctic Council next year. "The Arctic region is the last global frontier and a region with enormous and growing geostrategic, economic, climate, environmental and national security implications for the United States and the world," he said in his statement.

## U.S. CONGRESSMAN AND CHAMPION OF THE ENVIRONMENT HENRY WAXMAN RETIRES

Representative Henry A. Waxman (Democrat from California) announced this week that he will not seek another term. One of the country's most effective and accomplished lawmakers, Waxman, 74, and for some 40 years a strong initiator and supporter of strong environmental laws in the Congress, said he felt that "this is a good time to move on and have another chapter." For the environmental movement his departure will be a great loss.

## NOAA issues Annual Arctic Report Card



Photo: NOAA

**N**OAA issued its annual Arctic Report Card on 13 December 2013. The report, which focuses on North America and other parts of the Arctic, said the Arctic did not set new record lows for sea ice cover this year, but that the long-term warming over the past three decades continues to increase vegetation, drive species migrations, shift ice and snow patterns and spark dramatic changes in the polar ecosystem. It cites a series of regional Arctic extremes in 2013, including a record 30-day heat streak in Fairbanks, Alaska, as well as record high temperatures in swaths of Alaskan and Canadian permafrost 20 meters below the surface. August sea surface temperatures rose several degrees higher than the long term average in the Barents and Kara Seas, and the Arctic continues a long-term greening trend overall. The report said that amid the warming, the growing season for Arctic vegetation has increased roughly nine days each decade since the early 1980s.

## U.S. Congress passes omnibus 2014 budget

Overcoming months of partisan divisiveness, the two chambers of the U.S. Congress in January passed an Omnibus Appropriations Bill covering Fiscal Year 2014. President Obama signed this bill into law on 17 January, narrowly avoiding a Federal Government shutdown if an agreement had not been made. Funding for UNEP and the budget lines of immediate interest to UNEP are consistent with 2012 and 2013 levels.

The line item covering UNEP stands at \$7.55 million, and the line for "International Chemical and Toxin Programs"--mostly dedicated to UNEP-related programmes--is \$3.61m, for a combined \$11.16m. The level and distribution of U.S. contributions won't be known in detail until the U.S. State Department submits its pledge letter, usually sent to the Executive Director in late summer.

## SENATORS FORM GROUP TO SUPPORT CLIMATE ACTION

Eighteen senators launched a campaign on 14 January to highlight the science of climate change and defend the President's actions to reduce carbon dioxide emissions. The unveiling of the Senate Climate Action Task Force adds to the growing number of voices within Congress expressing concern about the absence of legislation to stem greenhouse gasses. The action is the latest in a series of efforts to resuscitate the issue after cap-and-trade legislation collapsed there four years ago. The group is seeking to counteract Republican efforts to roll back elements of President Obama's climate plan, such as regulation emissions of power plants. The group did not endorse specific legislative efforts to cut carbon dioxide, recognizing that the makeup of Congress now is making it difficult to pass climate change legislation.



## President Obama highlights climate change in State of Union Address

In a statement focused more on domestic and economic than on environmental issues, on 28 January the President emphasized that “climate change is a fact,” pointing out that for the past eight years the U.S. has reduced its carbon pollution more than any other country. “But,” he made it clear, “We have to act with more urgency—because a changing climate is already harming western communities struggling with drought and coastal cities dealing with floods.” In that connection he cited his Administration’s efforts to set tougher standards for emissions from power plants. He also mentioned energy related environmental issues including U.S. progress in solar energy and production of natural gas, and the Administration’s protection of Federal lands.

## Rising sea damage will be more expensive than defensive walls

By 2100, hundreds of millions of people will be threatened by floods. As we prepare to face the effects of rising sea levels, the costs of flooding will be more expensive than the cost of building protective walls. The cost of non-action in building protective structures could be as high as hundreds of billions of dollars, and even \$100 trillion, according to the paper Processings of the National Academy of Sciences. The paper says that 5 percent of the global population

could face floods yearly, and 10 percent of the globe’s economy could be drained. The increased threats of floods and the associated costs will create challenges for poorer nations who cannot afford to build protection, while countries that can afford to create protective projects are predicted to respond by building expensive dike systems to ward of the costs of flood damage. Sea level is expected to rise by between 10 inches and 4 feet by 2100.

## REPORT STATES U.S. ADMINISTRATION CAN TACKLE CLIMATE CHANGE BY TAKING MEASURES THAT DO NOT REQUIRE CONGRESSIONAL APPROVAL

Business leaders, energy experts and former government leaders issued a report saying that the U.S. Administration can tackle climate change by taking measures that do not require congressional approval. The 207-page report produced by the Center for the New Energy Economy (CNEE) contains some 200 recommendations on how President Obama can use executive authority to advance the climate change action plan he announced in June focusing on five major areas: doubling energy efficiency; financing renewable energy; producing natural gas; developing alternative fuels and vehicles; and helping utilities adapt to the country’s changing energy landscape. The report was inspired by a meeting last March between the President and 14 corporate and private sector leaders to discuss ideas to reshape energy policy. It contains contributions from more than 100 business leaders, academics, energy experts and government leaders.

# North American Major Groups and Stakeholders Consultation

On 3 and 4 December, over 60 participants attended UNEP RONA's annual Major Groups and Stakeholders Forum (MGGSF) at the U.S. Green Building Council (USGBC) in Washington D.C. The consultation was held in preparation for the 15th Global Major Groups and Stakeholders Forum (MGGSF) to be held immediately prior to the first-ever United Nations Environment Assembly (UNEA) in Nairobi, Kenya on 23-27 June 2014. Participants represented different major groups, including NGOs, business and industry, indigenous peoples, the scientific and technological community, and youth. Panel discussions featured expert speakers on various topics, including the Post-2015 policy landscape and agenda, preparations for UNEA, and improving stakeholder engagement in UNEP.

Following welcoming remarks by RONA's Elisabeth Guilbaud-Cox, and from North American regional major groups representatives Maggie Comstock and Diallo Shabazz, participants heard introductory presentations from Dr. Kerri-Ann Jones, U.S. Assistant Secretary of State for Oceans

and International Environmental and Scientific Affairs and from Elliott Harris, Director of UNEP's New York Office and Officer-in-Charge of UNEP RONA. Subsequent moderators and presenters included Peter Hazlewood of the World Resources Institute, Mario Ivanova of the University of Massachusetts, Alexander Juras, Chief of UNEP's Major Groups and Stakeholders Branch, John Norris of the Center for American Progress, and Andrea Carmen of the International Indian Treaty Council.

Consultation participants expressed support for integrating environmental issues and human rights into the Post-2015 Agenda and Sustainable Development Goals (SDGs). They also encouraged broader and more integrated stakeholder engagement in UNEP and encouraged increased regional representation in UNEP's Major Groups process. Participants elected two new North American representatives for the coming year — Maggie Comstock of the U.S. Green Building Council and Dr. Peter Denton of Red River Military College in Winnipeg, Manitoba, Canada.



From Left to Right: Laur Fisher, Community and Partnerships Manager, MIT Climate CoLab and Alternate North American Regional Representative; Hilary French, Programme Officer, UNEP RONA; Dr. Peter Denton, Associate Professor of History, Red River College and North American Regional Representative; Alexander Juras, Chief of UNEP's Major Groups and Stakeholders Branch; Maggie Comstock, Policy Analyst at US Green Building Council and North American Regional Representative; Elisabeth Guilbaud-Cox, Deputy Director/Head of Communications, UNEP RONA; Kathryn White, President and CEO of United Nations Association in Canada and Alternate North American Regional Representative

## UNEP EXECUTIVE DIRECTOR ADDRESSES CLIMATE LEGISLATORS



Photo: GLOBE International

On 27 February, UNEP Executive Director, Achim Steiner, delivered the keynote address to the 2nd GLOBE Climate Legislation Summit held in the U.S. Senate. Speaking to a gathering of more than 100 legislators representing 50 different countries, Mr. Steiner's presentation was the culmination of the opening session of the two-day event. His speech followed welcoming remarks from U.S. Senator Ed Markey and comments from a prominent panel that included House Democrat Leader Nancy Pelosi, Senator Barbara Boxer, US Special Envoy for Climate Change Todd Stern, the Rt. Honorable John Gummer, Lord Deben of the UK House of Lords, the Honorable Cedric Frollick, MP, House Chairperson of the National Assembly of South Africa, Ms. Christiana Figueres, Executive Secretary of the UN Framework Convention on Climate Change and several other notable dignitaries.

The opening session featured the presentation of the 4th GLOBE Climate Legislation Study that examined the quantity and quality of legislation addressing climate change in 66 countries. While the results of the study showed a marked increase in the volume of such legislation since 1993, the consensus among the speakers was that much greater efforts are needed to counter the rapid advance of climate change.

# UNEP features new video on Sea Level Rise at high-profile Climate Conference



Nationally-syndicated cartoonist Jim Toomey presents "Adaptation to Sea Level Rise" at the National Council for Science and the Environment (NCSE).



Photo: Kristen Roth, UNEP RONA

UNEP RONA staff and cartoonist Jim Toomey at the UNEP Exhibit Booth at the National Council for Science and the Environment (NCSE) conference.

On 28 and 29 January, UNEP RONA launched a new video on sea level rise at the National Council for Science and the Environment (NCSE) annual conference themed "Building Climate Solutions." The conference brings together more than 1,000 influential individuals from the fields of science and engineering, government and policy, and business and civil society. This video, the final in a series of six, was created in partnership with nationally-syndicated cartoonist Jim Toomey to engage, inform and inspire the general public about important issues affecting our oceans. It describes how coastal communities can restore ecosystem health and apply natural ecosystem-based adaptation strategies to respond to sea level rise by restoring mangroves and dune grass, protecting coral reefs and creating shoreline buffers.

The video was featured prominently at the conference. First at a panel symposium titled "What Makes a Climate-Smart City and How Can We Build Them?" convened by UNEP in partnership with World Wildlife Fund. Keith Alverson, Coordinator of the Climate Change Adaptation and Terrestrial Ecosystems

Branch in UNEP's Division on Environmental Policy Implementation introduced the video immediately prior to his panel presentation. The video was also highlighted during a plenary session before 750 guests, with an introductory presentation made by Jim Toomey.

The video was also shown in late February in New York at the UNGA PrepComm meeting for the Third International Conference on Small Island Developing States (SIDS) planned for September in Apoa, Samoa. UNEP hosted a side event, organized with support from RONA featuring the DEPI lead Global Adaptation Network. The European Commission also shared the video at their Healthy Oceans – Productive Ecosystems (HOPE) held 3-4 March 2014 in Brussels.

The Two Minutes on Oceans with Jim Toomey video series addresses a wide range of ocean topics including: blue carbon, the true value of our oceans, the impacts of climate change, as well as threats such as marine litter. For more information about the video series or to request use of the videos, contact: UNEP RONA Programme Officer, Monika Thiele.

## NARSPAC AND RONA HOST SUSTAINABLE CONSUMPTION AND PRODUCTION WORKSHOP

On 5 December, the North American Roundtable on Sustainable Production and Consumption (NARSPAC) and UNEP RONA hosted the Strategleadic Opportunities for Sustainable Production and Consumption in North America workshop in Washington, D.C. The event brought together a select group of U.S. and Canadian government representatives, civil society, academia, the private sector and international organizations. The workshop focused on several key areas including Sustainable Purchasing, Cities, Life-Cycle Assessment and New Narratives. Additionally, presentations on the 10 Year Framework of Programmes on Sustainable Consumption and Production (SCP) and the incorporation of SCP into the post-2015 agenda tied the regional focus to the global level. Break-out sessions and interactive group dialogues resulted in lively and fruitful goal-oriented discussions that helped shape the way forward for NARSPAC.



Photo: UNEP RONA



Photo: UNEP-RONA

Representatives from 15 embassies, government, and international organizations convene at UNEP RONA to discuss the Global Alliance to Eliminate Lead Paint (GAELP) partnership (12 December, 2013).

## U.S. State Department, EPA and RONA convene briefing on Global Alliance to Eliminate Lead Paint

Some 30 participants, including representatives from 15 Embassies from all of UNEP's six regions, government officials, and international organizations took part in the 12 December Global Alliance to Eliminate Lead Paint (GAELP) session entitled "Introduction to GAELP: What Governments Can Do about Lead in Paint." The event focused on the dangers posed by lead paint and the efforts that are underway, both internationally and nationally, to address them. Assistant Secretary of State Dr. Kerri-Ann Jones, UNEP RONA's Elisabeth Guilbaud-Cox and Meeting Chair Walker B. Smith, Acting Deputy Assistant Administrator of EPA's Office of International and Tribal Affairs opened the meeting. David Piper, Deputy of UNEP's Chemicals Branch provided an overview of GAELP partnership and summarized the results of the recent UNEP-IPEN study of lead in enamel decorative paint in nine countries. Ana Boischio, of PAHO, spoke about the health risks of lead and potential hazards of lead paint. EPA, UNEP and PAHO also spoke about the efforts in raising awareness globally through the International Week of Action on Lead Poisoning Awareness. Government perspectives and experiences from countries with lead paint legislation, including the U.S. and Argentina, along with next steps and opportunities, were discussed.

## CHINA AND SINGAPORE DESCRIBE ARCTIC INTERESTS IN CLOSED WASHINGTON SESSION

In a closed meeting, sponsored by UNEP RONA and the Center for Strategic and International Studies (CSIS), on 12 December in Washington, D.C. Chinese and Singaporean representatives outlined their country's respective interests in the Arctic. Heather Conley, Director of the Europe Program at CSIS moderated the session, and UNEP RONA's Elisabeth Guilbaud-Cox welcomed participants and outlined UNEP's interests and activities in the Arctic to an audience comprising some 30 U.S., Canadian and other foreign government representatives and non-governmental representatives. Singapore's U.S. Ambassador Ashok Kumar Mirpuri described his country's interests in the region as "modest" and focused mainly on commercial possibilities, shipping opportunities and protection of Indigenous Peoples, and not on Arctic resources. Dr. Hanling Wang of Beijing's Center for Ocean Affairs and Law of the Sea said his country's Arctic interests and activities were wide ranging, including resource and shipping interests, especially involving the Russian Northern sea route between Nordic Europe and China, the impacts of climate change on China and Arctic governance. He emphasized the Chinese belief that the Law of the Sea Convention is the principal governance regime for the Arctic but stressed that China believes there are many other international forums, treaties and agreements which affect Arctic governance issues.

# UNEP's Success with Partnerships and Initiatives Highlighted at Yale Conference

UNEP RONA participated in the Rio+20 to 2015: A New Architecture for a Sustainable New World Conference held at Yale University in New Haven, Connecticut on 1 and 2 November 2013. Co-organized by the Natural Resources Defense Council (NRDC) and the Governance, Environment and Markets Initiative at Yale, the meeting focused on the question of how best to integrate non-negotiated Partnerships, Initiatives, Networks, and Coalitions (PINCs) into the architecture of the next climate change agreement and of the post-2015 development agenda. About 180 people from 25 countries participated in the meeting, including Jeffrey Sachs of the Sustainable Development Solutions Network, Ambassador Csaba Korosi, Co-Chair of the Open Working Group on the SDGs, Tomas Christensen from the Office of the U.N. Secretary-General, and UNEP Goodwill Ambassador Pavan Sukhdev.

The conference provided a valuable opportunity to highlight the key role that UNEP has played in a number of important PINCs for an influential audience of policymakers and thought leaders. UNEP Executive Director Achim Steiner delivered well-received introductory remarks to the conference by video. Elliott Harris, the Director of UNEP's New York Office and Officer-in-Charge of UNEP RONA, delivered plenary remarks at a session on "The New

Development Agenda Architecture" and made a presentation at the oceans break-out session on Friday afternoon focusing on the Global Partnership for the Protection of the Marine Environment from Land-Based Activities (GPA) and related partnership such as the new Global Partnership on Marine Litter. Hilary French of UNEP RONA gave a presentation at the concurrent energy break-out session highlighting lessons from UNEP's engagement with the Partnership for Cleaner Fuels and Vehicles (PCFV), the Climate and Clean Air Coalition (CCAC) and the En.Lighten initiative. For further information about the conference, please visit the following webpage: <http://www.rioto2015.org/>



PHOTO: UNEP RONA

Elliott Harris, Director of UNEP's New York Office and Officer-in-Charge of UNEP RONA

## OFFICIALS DISCUSS GLOBAL IMPLICATIONS OF RAPIDLY CHANGING ARCTIC AT RONA/CSIS EVENT

On 22 January in Washington, D.C., officials from the White House's Office Science and Technology Policy, the U.S. Navy and the U.S. Arctic Research Commission highlighted changes in the Arctic and their concerns about them at an extremely well-attended event in the UNEP RONA and Center for Strategic and International Studies (CSIS) series. The panelists outlined the dangers and the opportunities of the northern region's shrinking sea ice, melting glaciers and permafrost and the impacts on human welfare and biodiversity. The Navy representative said that his organization would release an update of its 2009 Arctic Strategy focusing on needed implementation steps. The officials expressed their concerns about the lack of overall focus on the serious impacts of Arctic change, the fear that governments may not do enough to address the consequences, and the rapid rate of the changes. They reflected on the misperceived belief that the impacts of Arctic change are still far off, the lack of understanding of the difficulties the harsh Arctic conditions will present, and the failure to fully appreciate that Arctic changes will have global impacts. The event was the second of two. The first dealt with the interests of non-Arctic countries in Arctic matters.



Photo: Paula Senff

More than 100 participants discuss legal and policy solutions to prevent plastic pollution from reaching the marine environment at the “Marine Plastic Pollution Legal and Policy Solutions Workshop” held in video conference rooms in Washington, D.C. and Sacramento, CA and via webinar.

## Marine Plastic Pollution Legal and Policy Solutions Workshop

On 9 December, 2013, UNEP RONA and the Natural Resources Defense Council convened a workshop, in collaboration with Surfrider Foundation and the U.S. Senate Ocean Caucus, aimed to provide a forum for information exchange, discussion, and strategic planning regarding the legal and policy solutions available to prevent plastic pollution from reaching the marine environment. Extended Producer Responsibility programs for packaging and the potential application to single-use plastic packaging specifically, were a particular area of focus. The event gathered over 100 participants in two video-conference rooms, in Washington, DC and Sacramento, California, as well as via webinar. Speakers and participants included legislative staff, government agency personnel, and representatives from NGOs and the business sector from the U.S. and Canada. In welcoming remarks, RONA Programme Officer Carla Friedrich spoke about UNEP’s efforts to reduce marine litter through the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), including the recently-launched Global Partnership on Marine Litter.

## EXPERT PANEL HELPS DRIVE IPBES STRATEGY FORWARD TO 2014

On 14 November, 2013, UNEP RONA, the International Union for Conservation of Nature (IUCN), and the Embassy of France in Washington co-hosted a panel discussion to increase awareness about IPBES and key issues for the Second Plenary, which took place on 9 - 14 December in Antalya, Turkey. More than 70 participants received an overview of the IPBES intercessional activities, the Stakeholder Engagement Strategy, and the proposed thematic and methodological assessment priorities (e.g. pollination and food security, and land degradation) for the IPBES Work Programme from 2014 to 2018.

UNEP RONA’s Elisabeth Guilbaud-Cox provided welcoming remarks alongside representatives from the Embassies of France and Germany. Speakers and panelists included IPBES Multidisciplinary Expert Panel Member Ann Bartuska, U.S. Department of State Representative Christine Dawson, as well as representatives from the U.S. Department of Agriculture, World Resources Institute, University of British Columbia, the Center for Global Development, the French National Museum of Natural History, IUCN, GEF STAP and UNEP RONA.



Photo: UNEP RONA

Anne Bartuska, member of the IPBES Multidisciplinary Expert Panel explains the Platform’s Conceptual Framework to participants (14 November, 2013).



Photo: Flickr/Alexis Gmrrr

## Climate change shifting global rainfall trends

On November 11, 2013, the journal Proceedings of the National Academy of Science published the first study about how global precipitation patterns are moving in a new direction as a result of climate change. To conduct this study, researchers looked at the difference between the effects of El Niño and climate change. While El Niños usually make wet regions wetter, make dry regions dryer, and shift storm tracks away from the equator, climate change does the opposite. In conducting the study, researchers compared a model that didn't include the effects of greenhouse gases with 33 years of participation data. The results showed that natural variation could not have caused the shift in precipitation patterns and storm tracks, in the absence of the level of greenhouse gases. This study has confirmed scientists' premonition that changing rainfall trends is result of climate change that we can expect.

## NOAA finds 2013 tied for fourth warmest year on record

Despite the chill in parts of the U.S., the National Ocean and Atmospheric Administration found that the past decade was the country's warmest in history. It cited that the 10 warmest years in the 124-year period on record have occurred in the 21st century, making it clear that climate change continues to steadily heat up the planet while weather can be transient and local. NASA, on the other hand, using different data treatment methods, listed 2013 as tied for the seventh-warmest year on record, but the difference between the fourth and seventh places is just 0.02 degrees Celsius, within the margin of error the agencies acknowledged.

## Americans open to action on warming states survey

There are a larger number of climate change supporters that Americans and their representatives have come to believe. Jon Krosnick, a senior fellow with Stanford University's Wood Institute for the environment has revealed the findings from 16 years of Stanford polling, showing that the majority of people in every state support federal actions to tame industry emissions. 22,000 U.S. adults were included in the survey. The survey included inquiries about how many respondents would base their votes on candidates' climate positions. An astounding 10% of people in the United States (29 million Americans) are estimated to be passionate, thereby outnumbering climate change skeptics.

## NEW SURVEY FINDS MUCH HIGHER U.S. METHANE EMISSIONS, WITH OIL AND GAS THE LIKELY CULPRIT

A new study has found that the U.S. EPA's methane emissions inventory underestimates the nationwide releases by around 50 percent. A factor for this miscalculation can be attributed to the oil and gas sector, which according to the study is estimated to emit five times more methane in Texas and Oklahoma than currently believed. Part of this could be due to natural gas, since methane is a greenhouse gas that traps 70 times more heat in the atmosphere than carbon dioxide over a 20 year time period. EPA estimates that the largest emitter of methane in the United States is the oil and gas sector. With scientists finding that Texas and Oklahoma emitted more methane than assumed and also discovering propane in the atmosphere that is emitted from fossil fuel extraction, there are several signals that oil and gas accounts for a significant portion of the undercount of methane.

## NOVEMBER 2013 WAS WARMEST IN RECORDED HISTORY – NOAA

According to the National Oceanic and Atmospheric Administration, this year the United States experienced the warmest November ever recorded. Many other countries, such as Russia, experienced abnormal increases in temperature. Russia even recorded average temperatures that were 14F higher than average. This increase in temperatures also resulted in higher than average ocean temperatures.



Photo: NOAA

## Nutrient runoff harms corals, but reducing pollution can reverse trends

The first piece of tangible evidence of nitrogen and phosphorous being harmful to coral has been discovered. On 25 November 2013, a study was published in the journal *Global Change Biology*, finding nitrogen and phosphorous to be a cause of coral disease and bleaching. In this study, Vega Thurber and her colleagues added nitrogen and phosphorous to four coral reef plots along the coast of Florida, where after three years they consistently found dark spot syndrome to be severe in the plots where the nutrients were added. As a result of this experience, it has been discovered that once nitrogen and phosphorous stop being added to the water surrounding the coral, the corals can recover and return to their natural state within 10 months. This is an exciting discovery, since although this link has been suspected for a long time, it has never officially been proven and provides an opportunity for management decisions to be based on science. Through these scientifically supported management decisions, actions can be taken to reduce pollution, which can help reefs to be more resistant to the impacts of global warming. Amongst the enormous global warming problems that the world faces, being able to immediately see the recovery of reefs is a source of inspiration.

## Arctic may warm 13 C by end of the century

If efforts are not taken to reduce greenhouse gases, the Arctic could warm by 13 degrees Celsius (23.4 degrees Fahrenheit) in the late fall, and by 5 C in the late spring. Furthermore, it is very likely that the Arctic will experience an ice-free summer by 2050. If emissions are cut, the temperature increase in late fall would likely be 7 C and 3 C in late spring. This 6 degree difference, 7 C increase rather than a 13 C increase, would make for less impact on weather patterns, and economic and

shipping opportunities – for example, a 12 degree increase could extend the ice-free season into summer and fall. While these studies looking further into the future, the impact of increasing emissions are already showing, with sea ice declining at a rate of 3.2 percent per decade (relative to the 1981 and 2012 average). Recent climate models were used by the National Oceanic and Atmospheric Administration researchers to discover these findings, which are published in *Earth's Future*.

## STARTING THEN STOPPING GEOENGINEERING COULD DANGEROUSLY ACCELERATE CLIMATE CHANGE

It is often believed that we can use geo-engineering to combat the effects of climate change, but the story just got more complex. Recent studies have found that by doing geoengineering in the first place, we could preempt more harm to occur in the future. An international team of researchers used 12 models to explore this, using a solar radiation management system (SRM) as an example (offsetting one percent of annual CO<sub>2</sub> concentration increases by injecting sulfates or water vapor into the atmosphere). It was found that even if one percent of annual increases in CO<sub>2</sub> concentrations were offset for 50 years, if the SRM system was halted then the global climate changes combated for the past 50 years would go back to their previous state within five to ten years. Two of the main messages from this study are that if we try geoengineering, we should not abruptly stop doing it one day and that geoengineering should not be seen as a cure for climate change.

## Lakes decline reflects climate change

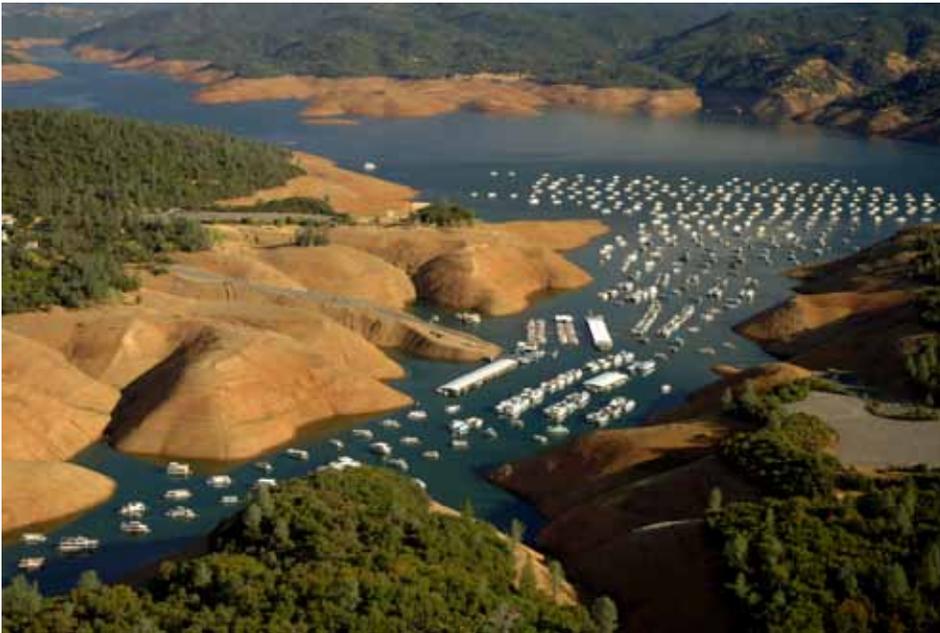


Photo: California Department of Water Resources

After studying 400 lakes near Barrow, scientists published a survey in *The Cryosphere* stating that grounded ice at the end of the April had gone down by 22 percent from 1991 to 2011. As a result of climate change, lakes on Alaska's Arctic coastal plain have been melting sooner in the season. For example, the average air temperature in Barrow rose by 1.7 degrees Celsius from the year 2000 to 2010. While temperatures have been rising, precipitation has also changed. There was an increase in snowfall at the beginning of the ice season, causing precipitation to work against the ice. The effects of climate change are being reflected by the changes taking place on Alaska's Arctic coastal plain.

## A warming planet will soon produce scattered but more severe and lasting water shortages

Forty percent more people are expected to face chronic water scarcity within a few decades as a result of climate change, say a group of scientists at research institutes around the world. Findings about the impacts a warming planet has on water shortages were published the week of 16 December 2013 in *Proceedings of the National Academy of Sciences*. It was

discovered that today 1 in 100 people live in countries with chronic water scarcity (chronic water scarcity is defined as less than 500 cubic meters of water available per person per year). While the global average water consumption is 1,200 cubic meters per year, once global temperatures rise by about 3 degrees it is estimated that 10 in 100 people could live in countries with chronic water scarcity.

## MAJOR EXPERIMENT PROBES MYSTERY OF MASSIVE UNDERWATER WAVES THAT HELP TRANSFER OCEAN HEAT

There is a lot of mystery around what the impacts of climate change are on the depths of the ocean. Findings were recently revealed in the *Geophysical Research Letters* focus on Luzon between Taiwan and Philippines, that huge underwater waves are created by geological ridges. Although the findings cover a small geographical area, they could be used to help scientist find out how heat is transferred across the ocean, in general. While we know that climate change is taking place, it is unknown how heat is moving from the surface to the depths of the ocean. Since Arctic waters are known for holding warm water very deep in the Atlantic Ocean, if more waves are cause by sea ice retreat, as a result of warming, that warm water could melt the ice.



# IV. ON THE CALENDAR



Photo: Stockvault/Geoffrey Whiteray

## World Environment Day

*4-5 June 2014*

Sarasota, Florida

## World Oceans Day

*8 June 2014*

Washington, DC

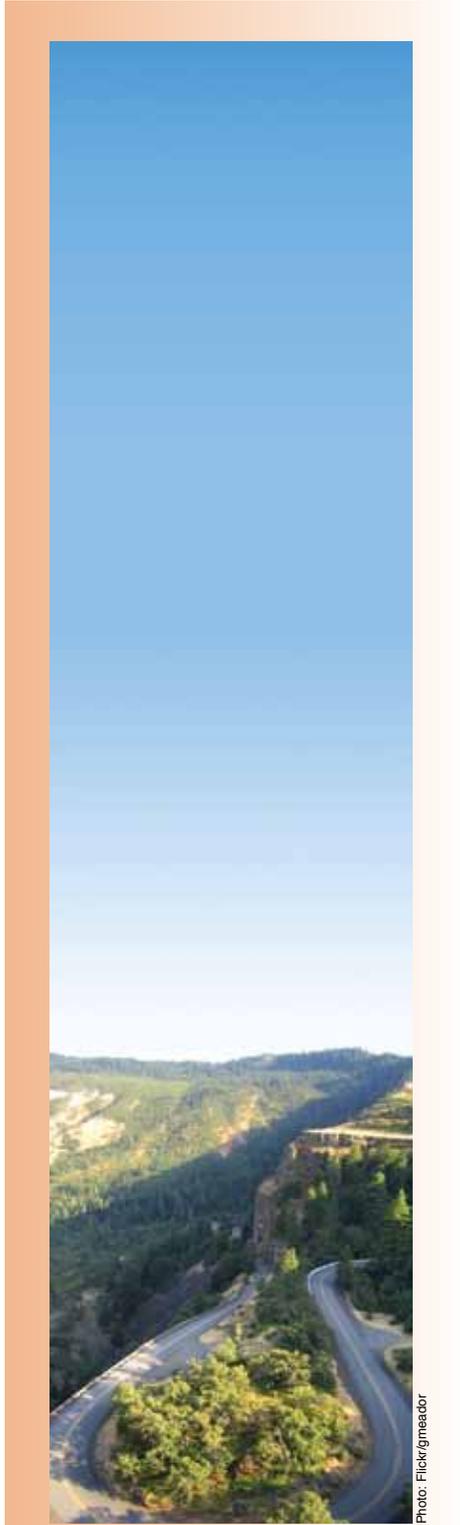


Photo: Flickr/gmeador