Inaugural Joint Commission Steering Committee Meeting on Science and Technology

JOINT COMMUNIQUÉ
Washington DC, 15 February 2011

The excellent collaborative research relationship between United States of America and Australia was further strengthened when the two countries convened their first Joint Commission Steering Committee Meeting on Science and Technology (JCM) on 14-15 February 2011 in Washington DC.

The JCM was announced jointly by Australian Prime Minister Julia Gillard and U.S. Secretary of State Hillary Clinton during Secretary Clinton's visit to Australia in November 2010. It follows the entry into force of the *Agreement Relating to Scientific and Technical Cooperation between the Government of the United States and the Government of Australia* in February 2007.

The United States and Australia have a long and productive history of working in partnership in areas that will shape the future. The two countries face similar strategic challenges and have national science programs focused on many of the same areas, including defence, health, materials, the environment and climate change. The strong history of science and technology collaboration between the two nations, which was first formally acknowledged in an agreement to cooperate signed in 1968, is reflected in vibrant relationships at the researcher-to-researcher level and growing links at institutional levels and in a range of government-to-government activities.

The JCM builds on these relationships by establishing an overarching, strategic dialogue on science and technology and a focus on enhancing joint efforts to address some of the most complex problems facing the world today. It is beneficial to researchers from the United States and Australian research communities in the short term, and strengthens the basis for a productive dialogue in the longer-term.

Mr. Daniel Clune, Principal Deputy Assistant Secretary, Bureau of Oceans and International Environmental and Scientific Affairs, Department of State, headed the U.S. delegation for the inaugural JCM. The American delegation included experts from key U.S. science agencies including the Agency for Healthcare Research & Quality; the Agency for International Development; the Department of Agriculture including the U.S. Forest Service; the Department of Commerce including the National Oceanographic and Atmospheric Administration and the National Institute of Standards & Technology; the Department of Defence including the U.S. Air Force and U.S. Navy; Department of Energy; the Department of Health and Human Services including the National Institutes of Health; the Department of Interior including the U.S. Geological Survey; the Environmental Protection Agency; and the National Science Foundation. The delegation also included experts from the Smithsonian Institution.

Ms. Patricia Kelly, Deputy Secretary, Department of Innovation, Industry, Science and Research, led the Australian delegation. The delegation included the Chief Executive Officer of Australia's major national research agency, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), the Chief Executive Officer of the Australian Research Council and senior representation from the National Health and Medical Research Council. The delegation also included the President of the Australian Academy of Science, world-class scientists from government agencies and universities, and other key policy representatives of government departments including the Deputy Secretary of the Department of Health and Ageing.

The JCM undertook a meaningful exchange of views on major policies and programs in science and technology. The plenary session of the first day provided an opportunity for both sides to discuss innovation systems and strengths, and particular opportunities for bilateral collaborative activity. Opportunities for collaboration in a wide range of areas were discussed. These included cooperation

on access to infrastructure, opportunities for data sharing, development of research networks, researcher mobility initiatives and formal links between Australian and US public sector research agencies.

A significant component of the meeting was a series of concurrent workshops on key global issues. These brought together experts in discipline areas from both countries to examine the status of the current scientific and technological links and identify opportunities for possible future collaboration. The workshops focused on specific topics under the broad thematic areas of:

- Shared Challenges in Health
- Marine Science
- Climate and Earth Observation
- Rare Earths and Critical Minerals
- Agriculture, Water and Food Security
- Enabling Technologies and Research Exchange

Both nations recognized six important cross-cutting areas of existing collaboration for further development relevant to all or most subject workshops:

- Exchange programs in research training and early career development
- Data sharing, policies, technologies and procedures
- Public awareness and outreach activities
- Whole of system analyses of human interaction with earth systems to address overarching issues such as nutrition, environment, health, security and the influence of future climate on humanity
- Workforce development including the importance of diversity and providing development and career opportunities that realize the full potential of the workforce, particularly women in science

A number of agreed actions were identified across a broad spectrum of fields, which are listed at **Attachment A**. It was agreed that these actions would provide the basis for a forward program of joint work.

In conclusion, the inaugural JCM acknowledged the strong collaborative relationship between the two nations, and the opportunities to further common strategic interests and to work together to lead efforts to address complex global challenges. In recognition of both countries' desire to maintain the momentum and enthusiasm of the first meeting, the Australian delegation head was pleased to invite the JCM to meet next in Australia at a mutually convenient time.

A list of JCM participants is at **Attachment B**.

Signed in Washington DC, United States of America, on February 15, 2011, written in two original copies in English, with each copy being equally effective.

.....	.....
[signed]	*[signed]*
Daniel Clune	Patricia Kelly
Principal Deputy Assistant Secretary	Deputy Secretary
Bureau of Oceans and International Environmental and Scientific Affairs	Department of Innovation, Industry, Science and Research
Department of State	Commonwealth of Australia
United States of America	

ATTACHMENT A

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ACTION PLAN

Shared Challenges in Health

Priority action items identified in relation to the application of ICT in health are:

- Embarking on a set of collaborative activities related to the introduction of personally controlled health records, including collaborating on shared work areas, conjointly developing future standards to submit to standard development organizations in health IT areas, and progressing a shared understanding and implementation of code sets for public health and clinical usage.
- In the area of progressing telemedicine opportunities, the United States and Australia agreed to facilitate the development and adoption of interoperable standards for telemedicine, develop compendium of deployed telemedicine, share evaluation tools for impact of telemedicine, and exchange information on reimbursement options that have been developed within the US.
- The US and Australia agreed to share their experiences in identification of current privacy/security issues in the deployment of PCEHR/EHR and strategies for resolution.
- Collaboration between the US and Australia on data issues, including database development and de-identification of data for reuse.
- In relation to development of the ICT health workforce, the parties agreed to share curriculum as well as consider development of curriculum reflective of rural communities for medical informatics, and to explore the potential for training options in each country

Priority actions on shared challenges in translational medicine are:

- The parties will explore opportunities for increasing awareness and collaborative research efforts in mosquito vector disease related to climate change.
- The US and Australia will assess and seek to reduce barriers to cooperation in management of clinical research, application of genetic testing (particularly whole of genome sequencing), and uptake of evidence in clinical practice through academic health centres.
- The parties agreed to share information on on-line education related to translational research and medicine.
- The US and Australia will continue to share information on translational research priorities and mechanisms to improve uptake of evidence into clinical practice.

Marine Science

Potential areas for further collaboration identified included: further development of the ATLANTIS ecosystem model to enhance its application in different locations; cooperation on use and sharing of vessels between NOAA and CSIRO; collaboration on research in the coral triangle area, and promotion of policy dialogue on the CTI between governmental agencies; collaboration on research on deepwater and mesophotic reefs; and exchanging lessons learned on spatial planning and management for coastal and marine areas. The workshop participants undertook to pursue action in the following areas:

- An implementation workshop will be held in May 2011 to support a recently established CSIRO-NOAA MOU, and will include discussion of collaboration in ocean observation, climate modelling, biodiversity and EBMS studies.
- Development of a global biodiversity observation network using standardized methods on coral reefs in shallow habitats, with a workshop to be held at AIMS in May 2011 and another at the Smithsonian later this year.
- Collaboration on paleo-climate records and climate reconstructions from deep and shallow water corals, with a workshop to be staged in the third quarter of 2011 led by NOAA, AIMS, the Smithsonian and NSF. It was agreed that designated leads from each of these agencies would be identified by the end of March 2011.
- Collaboration on laboratory/mesocosm facilities to study ocean acidification and climate change and coral bleaching forecasts from satellites. Workshops on this topic in the third quarter of 2011 will include AIMS, NOAA, CSIRO, BOM and other institutions to be identified.

Climate and Earth Observation

Potential areas for future collaboration included: collaboration on Landsat image calibration, continuity mission support and regional data node and petabyte scale image processing and delivery; water management, including water accounting, flooding and natural disaster emergency response, and seasonal prediction and droughts; Monitoring carbon and biomass, including forest carbon tracking and demonstrators, low-density forest mapping, the SilvaCarbon project, and sustainability indicators and regional networks; and fire prevention, monitoring and management support, such as assessing trends in burn severity, fire detection, monitoring and forecasting, and fuel load mapping. The participants agreed to pursue the following actions:

- Establish a joint US-Australian initiative to develop forest carbon tracking methodologies and associated R&D requirements. The two countries will jointly offer their expertise to other nations to help them develop the capacity to build their own forest carbon tracking systems, to support the objective of reducing carbon emissions from deforestation and forest degradation.
- Australia and the US will cooperate in the development of capability to rapidly analyze and distribute satellite imagery for real-time use by emergency managers, especially in response to floods and fires.
- Australia and the US will stage a joint web-enabled Landsat data (WELD) workshop hosted by Geoscience Australia to improve understanding of national scale land cover dynamics and land-use change and management.

Rare Earths and Critical Minerals

Discussion identified action items to take forward to US-Australia High Level Group on Energy Cooperation and Innovation, with recommendations for collaborative work in the areas of:

- Location mapping.
- Environmentally friendly extraction, recycling and green manufacturing.
- Downstream high-value products incorporating rare earths (multilateral).

Agriculture, Water and Food Security

Potential areas for future collaboration: sharing of information on Australia's National Food Strategy and relevant strategies in US; plant genome research programs, including those supported by the NSF and Australian Phenomics Facility; and food security in early childhood and maternal health, which are key issues in US and Australian efforts globally and in addressing the Indigenous health gap (noting that this work could be taken forward by USAID, ACIAR, AusAID and the Telethon Institute). A number of areas for possible cooperation on drought risk management in a changing climate were identified.

The following action items were identified:

- Applying the knowledge gained in working with wheat for drought resistance to explore opportunities for application in soybeans. Partners on this activity would include USAID, the Australian National University, ACIAR, USDA and CSIRO.
- Collaborate on wheat rust (and other pathogens), and resistant variety development. Partners would be USAID and ARS in the US, and CSIRO and ANU in Australia.
- Collaboration on integrated assessment of land-use, carbon and climate scenarios. Partners in this activity would include the National Forest Service and CSIRO.
- Establishment of a training center in Australia for laboratory workers in food safety from developing economies, modelled on the center at the University of Maryland. Partners in this activity would be the NMIA and NIST, working with JIFSAN.

Enabling Technologies and Research Exchange

Coordination across governments is considered particularly important in addressing environmental, toxicological, risk assessment and risk management of enabling technologies, and the regulatory and governance models that may apply. The following action items were identified:

- Enabling technologies strategy – The US and Australia will pursue collaboration opportunities to share knowledge and provide direction and contact points for home agencies dealing with enabling technologies challenges.
- Research infrastructure supporting nanotechnology and biotechnology – The US and Australia agree to pursue collaborative projects and researcher exchanges and cross-node linkages, to maximise the value of research infrastructure supporting nanotechnology, biotechnology and sustainable green manufacturing, and to support other activities including environmental health and safety research. Initial projects will include: collaboration and exchanges between NIST and NMI on measurement and standards infrastructure; and collaboration between NNO and ANFF to explore the extension of facility networks to international nodes.
- Phenomics – The US and Australia will continue to share animal and plant phenomics capability and data management expertise.
- Researcher exchange – The US and Australia will continue to share information about programs to support university researchers.
- Biometrology – The US and Australia agree to work together to develop measurement and standards infrastructure for the characterization of nucleic acids for diagnostic and prognostic applications in infectious and genetic diseases.
- Nanometrology – the US and Australia agree to work together to develop measurement and standards infrastructure for the characterization of nanomaterials to ensure health, safety and security in applications of nanotechnologies.

ATTACHMENT B

LIST OF PARTICIPANTS

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