



2002-2003 Australia-U.S. Climate Action Partnership (CAP) Activities

Climate Change Science and Monitoring

Australian and US scientists have responded positively and strongly to the opportunities presented by the CAP, based on their close working relationships, particularly in climate and ocean research and monitoring.



Six specific activities have been identified for the initial phase of the CAP. These projects build on existing collaboration and extend it into new and high priority areas. Each of the selected areas of activity is intended to benefit from joint application of U.S. and Australian expertise, sharing of technology developments and Australia's proximity to key geographic regions in the climate system, such as Antarctica and the Indian and Southern oceans. The cooperation envisaged aims to reduce key uncertainties and improve the capacity of climate science to inform the policy making process.

Key outcomes of the CAP activities are expected to include:

- Enhanced climate models that more accurately represent critical processes such as those associated with radiation, aerosols and clouds;
- More effective integration and sharing of climate modelling results;
- Improved understanding of the role of Antarctica and the Southern and Indian Oceans in the climate system through maintenance of existing observing systems and development of new and enhanced ocean observing systems; and
- More complete understanding of changes in the global carbon budget through expanded observations in the Southern Hemisphere.

A number of other areas have been identified and are under consideration for future engagement.

Stationary Energy Technologies

Collaboration under this theme will bring together Australian and U.S. research and expertise on leading edge technologies to reduce emissions from the stationary energy sector including:

- Renewable energy as an alternative to diesel-generated electricity (remote area power supply), with a particular focus on models that work well in the US and Australia but that could also extend to developing countries;
- Hydrogen research, fuel cells and distributed energy systems;
- Advanced cleaner coal technology research, development and demonstration, with a particular focus on facilitation of research and development cooperation between US and Australian industry.

Engaging with Business – Technology Development

Collaboration under this theme focuses on technologies and industries that are global in scale in areas where Australia and the US have made significant investments, and/or have demonstrated technological leadership, and/or are developing policy frameworks to encourage transitions to new technologies. The initial three projects bring together Australian and U.S. research and expertise on cutting edge technologies such as:

- Separation, capture and geological storage of CO₂ in connection with energy intensive industries including power generation and oil and natural gas production;
- Use of alternative fuels in vehicles to deliver greenhouse benefits;
- Acceleration of research and development into new technologies and implementation of better management to reduce emissions of high global warming potential gases (PFCs, HFCs and SF₆).

A number of other areas of possible future collaboration have been identified for further development (for example, technology roadmapping for the Alumina industry). These may be included at a later date in the Partnership.

Engaging with Business – Policies, Tools and Approaches

Engaging industry in cost-effective greenhouse abatement action is a key focus of both the US and Australia's domestic policy frameworks. The exchange of knowledge, experience and tools in areas such as developing and implementing programs to encourage, facilitate and leverage voluntary abatement action by industry; and the identification of common approaches to reporting and verification of emissions reductions (and possibilities for domestic crediting of these reductions), will assist in ongoing domestic policy and program development and providing greater certainty for industry over the longer term.

A focus will also be given to sharing experience in developing and implementing energy efficiency labelling and standards, promoting the adoption of common test procedures, and facilitating joint access to materials and methodologies that support labelling and standards programs by promoting best practice in energy use. It is expected that a key benefit of this collaboration will be the delivery of economic and greenhouse benefits to consumers and enhancement of the ability of manufacturers to compete in export markets.

Another area of focus will be improving the energy efficiency of, and consequent reduction of greenhouse gas emissions from, the governments' own facilities primarily through sharing experience in, and tools for, developing and implementing programs to improve the energy efficiency of government buildings.

Collaboration with Developing Countries to Build Capacity to Address Climate Change

Australia and the U.S. will work together with developing countries to help them address climate change, including through the adoption of effective energy and environmental policies. An early objective will be to help improve climate monitoring systems in developing countries.

Australian and U S experts are already engaged in working towards these goals. Initial projects focus on the establishment and maintenance of robust and sustainable climate monitoring and data management systems in the Pacific. The projects will assist Pacific Island countries in accessing and applying climate and oceanographic information more effectively in climate-related risk management and adaptation to climate change.

Key deliverables planned in the first year of the CAP include:

- Initial training for climate-related risk management ; and
- Conduct of a joint workshop in Fiji, hosted by SOPAC (South Pacific Applied Geoscience Commission), to develop understanding of the regional needs for, and potential applications of, ocean observations.

Greenhouse Accounting in the Forestry and Agriculture Sector

With both the U.S. and Australia having large and diverse land systems and with both making a major investment in accounting of greenhouse emissions and sinks from agriculture, land use change and forestry activities, the CAP provides a solid framework for collaborative efforts.

Activity under this theme is planned to focus initially on establishing a framework for enhanced cooperation and collaboration on:

- Design and implementation of project level and national accounting methods for land systems as adopted in national greenhouse inventory accounting;
- Development of process models and decision support tools for farmers, forestry and policy makers; and
- Research to better understand the basic processes and mechanisms controlling net greenhouse emissions in agriculture, forestry and other land systems.

These activities are expected to result in strengthened capabilities for integrated accounting systems for net greenhouse emissions from land systems; and a better understanding of processes and mechanisms controlling greenhouse gas emissions and carbon sequestration in agriculture and forestry systems. A senior experts workshop in late 2002 will plan and develop the detail of these projects.