

United Nations Framework on Climate Change
Transfer of Technology Consultative Process
Asia and the Pacific Regional Workshop

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Resources

Index

- 1. Introduction**
- 2. Ongoing and planned technology transfer activities in the LA&C region**
- 3. Elements of successful transfer of technology activities**
- 4. Possible elements of a framework for meaningful and effective actions to enhance implementation of Article 4.5 of the Convention**
- 5. Expected outcome of the consultative process**
- 6. Conclusions**

1. Introduction

Australia is supportive of the consultative process initiated by the Chairman of the SBSTA. The workshop in Arusha, Tanzania represented a good start in the consultative process and the second workshop in Cebu City in the Philippines was successful in drawing out barriers to technology transfer from a developing country viewpoint. Australia looks forward to participating in the Latin American and Caribbean workshop in January 2000. Australia welcomes the opportunity to submit its views on the development and transfer of technologies, especially as they relate to climate change.

Australia sees the private sector playing the key role in technology development, diffusion and transfer. However, Australia believes the public sector has a significant role in designing the legal, institutional and policy frameworks to facilitate private sector investments and in ensuring that adequate education, training and research and development frameworks exist and are enhanced.

2. Ongoing and planned technology transfer activities in the LA&C region

Because of its geographical location, Australia's main focus, is on undertaking technology transfer projects in the Asia Pacific region. Of course, many of the lessons learned from these projects could have much wider applicability, including in the Latin American and Caribbean region.

Following are examples of Australian aid projects or programs that have promoted, facilitated and/or financed transfer of technologies. The Australian Overseas Aid Programme is funding programmes and projects that have a total value of \$268 million including current commitments of approximately \$33million to the Global Environment Facility Climate Change programme. The Aid programme also supports a wide range of environmental management in sectors such as energy, forests and land resources.

Capacity building is intrinsic to Australia's development co-operation programme. It includes institutional strengthening, collaborative research and education training. Projects in these areas provide developing countries with the capacity to put in place policies and activities to mitigate and adapt to climate change.

Australia is helping vulnerable Pacific nations to address climate change through a strategic response that addresses adaptation and abatement issues. The programme is supporting not only projects that directly target climate change problems, but also broader socio-economic development activities that help small island states to cope better with climate change.

Australia supports the South Pacific Forum Secretariat's energy program which promotes energy-efficiency policies and renewable energy technologies. Australia belongs to, and strongly supports, the South Pacific Regional Environment Programme (SPREP), the peak environment organisation in the South Pacific. SPREP helps Pacific countries to deal with crucial environmental and natural resource management issues, including climate change.

Australia and the World Bank have signed an agreement concerning the National Strategy Study Program (NSS) for the CDM. Australia will provide \$2 million to be used for the

execution of selected climate change-related studies in the Asia Pacific region. The Australian NSS program aims to build capacity of developing countries in the Asia Pacific region to explore the opportunities and potential benefits of participating in the CDM.

Australia is also providing \$6 million through its International Greenhouse Partnerships Program to progress the establishment of the Kyoto project-based mechanisms, including the CDM. The establishment of commercial international collaborative projects is a major activity stream of the Program to gain experience in the lead up to the establishment of the CDM. To date, Australia has established seven projects under the Activities Implemented Jointly (AIJ) pilot phase with 1 non-Annex I country in South America and four non-Annex I countries in the Asia Pacific region. The projects encompass a wide variety of energy technologies including solar, wind and micro-hydro power, energy efficiency measures, gas pipeline refurbishment and landfill gas capture and utilisation.

At the multilateral level, Australia is able to facilitate technology cooperation through its involvement in the activities of the International Energy Agency (IEA) and the Asia Pacific Economic Cooperation (APEC) arrangements. Australia is also active in the Climate Technology Initiative (CTI) which aims to foster international cooperation for accelerated development and diffusion of technologies.

Australia, through AusAID, supports bilateral, regional and multilateral projects that facilitate the transfer of “hard” and “soft” technology for climate change in sectors such as energy, forests, land resources and adaptation. In 1997-98 the total approved value of these activities was approximately \$152 million and expenditure in that year was \$20 million. Australia has committed approximately \$116 million to the Global Environment Facility (GEF) since 1991.

The Australian Government will continue to support projects that contribute to reducing greenhouse gas emissions, enhancing carbon sinks, and adapting to the adverse effects of climate change. These projects will variously involve institutional strengthening, climate and sea level monitoring, and the transfer of practical technologies in areas such as energy efficiency, solar energy, forestry and land management.

3. Elements of successful transfer of technology activities

While there are many necessary elements in a successful transfer of technology, Australia is of the view that enhanced information on climate related technology and capacity building are key elements in enabling developing countries to take advantage of available technologies and to address the ultimate objectives of the Convention.

Australia supports an approach whereby all Parties have access to an enhanced technology information dissemination system. At the Fourth Conference of Parties (COP4) in Buenos Aires, Australia proposed that Parties consider the possibility of establishing a “clearinghouse”. This “clearinghouse” could coordinate activities with a number of international, regional, national and thematic focal points linked across the Internet. It could be located under the UNFCCC Secretariat or an existing information centre endorsed by the Parties. Users without access to the Internet could be provided with services in other formats such as diskette or print.

Another element in successful technology transfer can be provided by multilateral organisations. Australia is a member of the OECD/IEA Climate Technology Initiative (CTI) which conducted a joint industry seminar on technology diffusion prior to the UNFCCC Workshop in Cebu City as part of a global series of workshops and will hold another prior to the UNFCCC Workshop in San Salvador. The CTI, through its Co-operative Technology Implementation Program, is currently working with the Southern African Development Community to identify technology needs and priorities and to develop strategic development and diffusion plans based on these requirements. CTI is actively seeking to establish similar partnerships with other developing countries and countries with economies in transition.

The Global Environment Facility (GEF) and Clean Development Mechanism (CDM) are critical in the transfer of technology to developing countries. Australia sees the private sector playing an important role in technology development, diffusion and transfer, given that the bulk of environmentally sound technologies is privately developed and owned.

Developing countries can assist in the promotion of technology transfer by the provision of an economic environment conducive to private sector investment. This could involve:

- establishing stable macro-economic and budgetary policies and adopting market-oriented policies;
- reducing trade and investment barriers and creating favourable investment conditions for the private sector; and
- ensuring effective and accountable institutions, including intellectual property regimes, banking and customs.

The multilateral/bilateral flow of funds to developing countries needs to increasingly lever private sector capital to enhance the flow of private sector funds noting that, in the longer term, as the markets for environmentally sound technologies become well established and their commercial viability is demonstrated, the market will be driven primarily by the private sector.

Australia is also supportive of bilateral and multilateral technology cooperation activities as an element of technology transfer. Australia has formal bilateral arrangements facilitating technology cooperation with several non-Annex I countries, largely in the Asia Pacific region. Technology transfer is also facilitated through Australia's overseas aid program and the International Greenhouse Partnerships Office. Like most countries, Australia produces only a fraction of its total technological needs, and therefore also has bilateral arrangements to facilitate technology transfer from overseas.

The identification of multilateral and bilateral opportunities to promote technology cooperation is another important element in technology transfer and should be sought out by interested countries. The outcomes of the special IPCC report on methodological and technological issues relating to technology transfer that will be available soon and the Third Assessment Report of the IPCC to be completed in early 2001 may provide appropriate guidance in respect of future cooperative activities.

4. Possible elements of a framework for meaningful and effective actions to enhance implementation of Article 4.5 of the Convention

Australia suggests that Parties build on the work reported by the UNFCCC Secretariat in the Technical Paper on Terms of Transfer of Technology and Know-How (FCCC/TP/1998/1). Whereas the UNFCCC survey investigated a limited number of projects, the paper clearly delineated that situations vary from country to country, and that a combination of policy instruments is likely to be needed to enhance implementation of Article 4.5.

The UNFCCC paper also noted that the key problems, in order of decreasing importance, appear to be financial, economic, technological, institutional and cultural. Financing of technology development and diffusion in Annex I countries is mainly the domain of the private sector. When the financing impediment is considered alongside the economic barriers imposed by the often-substantial cost of new or upgraded technology and associated services, the need for individual governments to create favourable investment conditions for the private sector cannot be overlooked.

Technological and institutional problems are, on the other hand, more amenable to addressing in a multilateral context, although circumstances will vary from country to country. Australia is supportive of mechanisms that can accelerate legal and financial policy reforms, to bring about framework changes which can create a market pull for energy efficient technologies.

At the technological level, UNFCCC can make a significant contribution to information dissemination, technology assessments (including financial analysis), and technology applications. Institutional impediments can be addressed through an integrated approach that provides for enhanced technical knowledge and capabilities at the country level through continuing education, training and skill development, research and development base, and other relevant capacity building.

Important work to promote the removal of barriers to technology transfer is being undertaken by the entity operating the convention's financial mechanism, the Global Environment Facility (GEF). The GEF has two operational programs specifically directed to barrier removal, namely "Removal of Barriers to energy efficiency and energy conservation" and "Promoting the adoption of renewable energy by removing barriers and reducing implementation costs". The experiences and lessons learned from the activities implemented under these programs are tracked and disseminated by the GEF's monitoring and evaluation office. Parties may like to consider encouraging the GEF to enhance its outreach on these matters through mechanisms such as workshops in conjunction with meeting of the Convention and its subsidiary bodies, enhanced information on the GEF's web page.

5. Expected Outcome of the Consultative Process

Australia is looking forward to working with developing countries in this workshop, the third in the series of workshops in the Consultative Process, which will provide a clearer understanding on the part of all parties of technology transfer issues in relation to the implementation of Article 4.5 of the Convention and Australia supports the development of a suitable framework for this process. Australia expects that the informal structure of the workshop's group sessions will again be extremely useful in providing some clear direction which will assist in the preparation for COP6 in November.

6. Conclusions

Australia is pleased to be part of this series of consultative workshops as we believe that the discussions at each of the workshops will increase understanding of technology transfer issues around the globe and at this workshop, in the Latin American and Caribbean region. While Australia is not active in the Latin American and Caribbean region, it is extremely active in the Asia Pacific region through its Overseas Aid programme including support for projects that assist adaptation to climate change, and through its International Greenhouse Partnership Programme to progress international collaborative projects (AIJ) to reduce greenhouse gas emissions. Australia believes that lessons learned in the region in which it is active could have much wider applicability, including in the Latin American and Caribbean region.