



Australian Academy of Science

Ian Potter House, Gordon Street, Canberra ACT 2601

President: Professor Kurt Lambeck
PresAA, FRS

22 August, 2008

Mr John Carter
Secretary
Foreign Affairs Sub-Committee
Joint Standing Committee on Foreign Affairs, Defence and Trade
Parliament of Australia
Canberra ACT 2600

Dear Mr Carter,

Australia's relationship with ASEAN

The Australian Academy of Science is well placed to provide comments for this enquiry as it is extensively involved in international cooperations in science and technology, and so is aware of increasingly strong science and technology (S&T) links between Australia and the countries of ASEAN. Scientific research is not highlighted in the Joint Standing Committee on Foreign Affairs, Defence and Trade's terms of reference but is of fundamental importance, both in its own right and in underpinning economic, environmental and social developments in these countries. Links in S&T are being fostered by recognition of their importance by Governments, institutions such as research institutes and universities, as well as between individual scientists.

Strengths of the Academy in international S&T

For the Academy, promoting Australian participation in international cooperations in science and technology is part of its core business.

The Academy can contribute to strengthening international S&T linkages for a number of reasons:

- The Academy includes amongst its Fellows, Australia's most experienced and distinguished scientists. These Fellows can connect with their international counterparts and create research links. The high-level links ensure Australia is able to access the very best science and technology that the rest of the world has to offer. (While representing just 0.3 per cent of the world's population, Australia produces 2 per cent of total research, which means that 98% is produced elsewhere.) Fellows also facilitate opportunities for younger researchers who have not yet established their reputations to gain such access. Thus the Academy helps ensure that, as a nation, we remain internationally competitive in science and technology.

- The Academy itself maintains contacts with its overseas counterparts. Again, this helps to create opportunities for personal as well as institutional links. The relationship between Australian and overseas academies is such that if one asks another to organise a meeting or to make arrangements for site visits, doors are opened and the appropriate people are engaged.
- Cooperation in science and technology is rarely contentious. Political and trading relationships with countries such as China and Indonesia have been built upon a history of cooperation in science and technology. The Academy has played a major role over a long period in building goodwill towards Australia through its role in promoting international cooperation in S&T.
- The Academy hosts international visitors and delegations. These activities provide opportunities for Australian researchers. Academy officials and government officials have met with senior international researchers and research funders, to discuss international S&T policy and practices, and to promote Australian research and technology.

Australia's strategic S&T global engagement

Science and research have always been international, and in recent years there has been a substantial increase in the internationalisation and globalisation of research. This has led to new channels and mechanisms for multilateral economic, scientific and technological development, and increased cultural awareness and interactions. In this way, globalisation and internationalisation can also promote favourable social development.

It is important that Australia finds ways to identify opportunities to increase its level of global engagement in science and technology in the national interest. One way to do this is to build international linkages through global and regional collaboration. This is a strong message that is in the report *Australia's Science and Technology Priorities for Global Engagement*, presented at the sixteenth meeting of the Prime Minister's Science, Engineering and Innovation Council (PMSEIC) by the working group chaired by the President of the Australian Academy of Science, Professor Kurt Lambeck FAA, FRS:

<http://www.dest.gov.au/NR/rdonlyres/DAFC19EC-E287-4470-ACB0-1843A78C28AF/15162/ReportGlobalEngagement.pdf>.

This same working group noted that Australia's decisions, regarding which countries and regions Australia's international science and technology activities should focus on, must consider the importance from a geopolitical and national-security viewpoint.

It is important that Australia explore opportunities for research partnerships with developed and developing nations in our region. By formally engaging with organisations such as ASEAN, Australia maximises the benefits of its linkages with global scientific activities. Many of the scientific challenges facing modern nations are global rather than national and they need to be tackled collaboratively. By strengthening S&T links with ASEAN countries, Australia can contribute and develop solutions to global challenges, such as climate-change and security, the preservation of biodiversity, and sufficiency of food.

In the area of climate-change science, Australian scientists currently have extensive interactions internationally through bodies such as the Intergovernmental Panel on Climate Change, and the Intergovernmental Ocean Commission, as well as international science research agencies such as the World Climate Research Programme, and the International Geosphere-Biosphere Programme.

Australia, as a key developed economy in the southern hemisphere, is conveniently located to observe the Southern Ocean, and can be a provider of climate knowledge and climate-change solutions to all nations in our hemisphere. This area of science ranks as a major emerging one, and will become increasingly more important to the nation's economy.

Academy activities in the region (multilateral)

Federation of Asian Scientific Academies and Societies (FASAS)

FASAS was established in 1984 to promote greater awareness of the roles of science and technology in nation building and regional development. The Australian Academy of Science is one of 15 member academies. Other members are from Afghanistan, Bangladesh, China, India, Republic of Korea, **Malaysia** (2 members) Nepal, New Zealand, Pakistan, **Philippines, Singapore, Sri Lanka and Thailand**.

The FASAS secretariat is currently based in Kuala Lumpur. In January 2009 the Australian Academy of Science will take over the Presidency of FASAS and will host the Secretariat in Canberra for a period of 4 years. This network of academies can be mobilised quickly to share information, in the case of extreme events, such as the recent SARS outbreaks, and the Indian Ocean tsunami, and in the case of future threats such as pandemic influenza. Issues of particular interest to FASAS include science education, where Australia has the potential to play a major role.

Inter-Academy Panel on International Issues (IAP)

The primary goal of the IAP is to help member academies, numbering 94, to work together to provide advice on scientific aspects of critical global issues. It is particularly interested in helping younger and smaller academies to achieve these goals. The Australia Academy of Science has been a member of the IAP since its inception in 1993, and it was a member of the IAP Executive from 2001-2003. Member academies include the following from ASEAN countries: **Indonesia, Malaysia, Philippines, Singapore, and Thailand**. The IAP has released statements on scientific capacity building, science education, science and the media, access to scientific information, and mother and child health.

Through FASAS and the IAP the Academy recently hosted visits to Australia by Malaysian and Thai science educators and policy officers. These visitors have participated in professional development activities that are related to Academy science education programs, such as *Primary Connections* – an investigations-based, curriculum that is a focussed program for primary school children.

Academy activities in the region (bilateral)

Every year, the Academy, on behalf of the Department of Innovation, Industry, Science and Research (DIISR), organises a number of strategic bilateral workshops in order to promote research cooperation between Australian researchers and counterpart colleagues. In relation to ASEAN countries, in April 2008 the Academy organised a workshop in Jakarta between Australia and Indonesia on the topic of *Human Health – Including Infectious Diseases*.

A major outcome from the discussions at this Workshop was the very strong plea from Indonesian researchers for increased aid in the area of human health research, to support collaborative research projects in the infectious and emerging diseases area, including chronic conditions such as cardiovascular disease and cancer.

It was pointed out by the Indonesian delegates that there was a strong perception that Australian aid was declining, or being diverted into other programs that do not address the major infectious disease issues such as tuberculosis, hepatitis, HIV, and vector-borne diseases, whereas funding from the United States and the European Union was perceived to be growing rapidly. Many of the Indonesian delegates were Australian graduates, including the Minister for Research and Technology, H.E. Mr Kusmayanto Kadiman, and many of the Indonesian delegates expressed the view that they would rather collaborate with Australian colleagues than with those from further afield.

The Australian delegates felt that increased collaboration between Australia and Indonesia in the general area of human health and infectious diseases was essential to provide an early warning of potential disease threats, and to ensure that there was sufficient capacity-building in Indonesia to meet the commitments required for compliance with the new International Health Regulations. While some of this capacity building would require training and equipment that was beyond the scope of the projects envisaged in this Workshop, capacity-building was also generated through joint, collaborative research, and the end result of this form of activity was potentially much longer lasting through scientific friendships and joint scientific endeavours.

There was considerable concern that there was no obvious mechanism by which joint collaborative research on health issues, and particularly those involving infectious diseases, could be supported. The Australian delegates were unanimous in the belief that some mechanism for supporting collaborative biomedical research in Indonesia was essential for Australia's biosecurity and for the future health and wellbeing of the Australian population, as well as providing assistance, support and capacity-building in Indonesia; to provide research outcomes to lessen the infectious diseases burden for our nearest neighbour.

The most effective outcome would be for a new initiative similar to DIISR's "Australian-Indian Strategic Research Fund" in which Australian aid could support peer-reviewed research programs undertaken as joint collaborative research projects between Indonesian and Australian researchers. An Australian-Indonesian Strategic Research Fund would be an excellent mechanism to ensure a strong, binding and

long-lasting collaboration between the biomedical and other scientific communities in our two countries.

Again quoting from the PMSEIC report:

Collaboration at the regional scale shares many of the same characteristics as global-scale collaboration. Problems that require regional cooperation are often those that inherently extend beyond national boundaries geographically or those that a number of nations have in common. Issues where early regional and preventative scientific collaboration is required is in the area of biotechnology for the detection, diagnosis and surveillance of human and animal diseases: a pro-active collaborative approach at the regional scale is far preferable to a reactive approach in which the disease is combated only once it has spread across geographic and national boundaries.

Examples of other Australian institutional activities in the region

Professor Suzanne Cory, AC FAA FRS, Director of The Walter and Eliza Hall Institute of Medical Research (WEHI), and Professor Alan Cowman, FAA, Head of Infection and Immunity Division, WEHI, have provided comments to the Academy in relation to WEHI's extensive contacts with countries of ASEAN, and in particular, Indonesia, Thailand and Vietnam. This has involved collaboration with scientific institutions in these countries as well as training programs for the broader Asia.

WEHI notes that these links have been extremely beneficial not only to the ASEAN countries but also to Australia as it has fostered a direct scientific link providing a mechanism for research between the countries in areas such as tuberculosis, dengue fever, HIV, and malaria. Further details appear at **Attachment 1** of this submission.

Professor Gerard Milburn FAA of the ARC Centre for Quantum Computer Technology at the University of Queensland has a number of informal research collaborations with the Centre for Quantum Technologies in Singapore (<http://www.quantumlah.org/>). The Singapore Centre is the best funded such Centre in the world. It should be noted that Singapore is positioning itself to transform into a 'talent magnet' for scientific excellence in selected research areas that will help to secure the economy, and position Singapore as the 'R&D gateway to Asia'.

Professor Terry Hughes FAA, Director of the ARC Centre of Excellence for Coral Reef Studies at James Cook University, is involved in the *Coral Triangle Initiative* (CTI), a new multilateral partnership on coral reefs, fisheries and food security. The regionally-driven CTI aims to be a comprehensive plan addressing two major threats to this biologically diverse marine region: resource exploitation and climate change effects.

The CTI will focus on three primary areas: (1) protecting coral reefs from man-made and natural disturbances, (2) developing sustainable fisheries, and (3) ensuring food security for the region's inhabitants. The CTI affects **Indonesia, Timor-Leste, the Philippines, Malaysia, Papua New Guinea, and the Solomon Islands**. This initiative

was proposed by President Susilo Bambang Yudhoyono of Indonesia in 2007. **Attachment 2** provides further details on this initiative.

The Director of the Menzies School of Health Research, Professor Jonathan Carapetis, has also provided comment to the Academy in relation to this enquiry. Prof Carapetis notes that the Menzies has established an international reputation as a centre for research and training in global health that includes major regional collaborations with **Indonesia, Thailand**, Timor Leste and Pacific Island countries including Fiji, Samoa, Papua New Guinea, and Tonga. Comprehensive information provided by the Menzies School is in **Attachment 3**.

Conclusions

The Australian Academy of Science believes very strongly that maintaining (and as far as possible increasing) funding that is dedicated to strengthening links in S&T is an excellent investment that will ensure strong and mutually beneficial relationships with ASEAN, and that practical commercial outcomes will eventuate in many areas. Political tensions that may arise have little direct impact on collaboration in S&T, although Government priorities for funding international S&T collaborations can, of course, be influenced by political events.

There is no doubt that scientists in Australia and ASEAN will continue along the present track of increasing collaboration. With Australia currently having only one dedicated Science Counsellor anywhere in the world (posted in Brussels), the person-to-person interactions required to develop these research collaborations will form a very important basis for improved relations between Australia and countries in the ASEAN region.

Medical research is an area that can potentially play an important role in assisting Australia to expand its relationship with ASEAN countries.

The Academy hopes that this submission will be useful in your deliberations. The Academy would be pleased to meet with the Joint Standing Committee on Foreign Affairs, Defence and Trade to discuss any of the above issues.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Kurt Lambeck', with a long horizontal flourish extending to the right.

Kurt Lambeck

Comments from the Walter and Eliza Hall Institute of Medical Research for the Australian Academy of Science with respect to: 'The Joint Standing Committee on Foreign Affairs, Defence and Trade on opportunities for expanding Australia's relationship with the countries of ASEAN'.

The Walter and Eliza Hall Institute of Medical Research (WEHI) has extensive contact with countries of ASEAN, and in particular, Indonesia, Thailand and Vietnam. This has involved collaboration with scientific institutions of these countries as well as training programs for the broader Asia region. Some of these interactions are described below.

These links have been extremely beneficial not only for the ASEAN countries but also Australia as it has fostered a direct scientific link providing a mechanism for research between the countries. They have been funded either through government agencies such as AUSAID or philanthropic foundations such as the Wellcome Trust and The Atlantic Philanthropies Inc. These links not only enhance the regional economy by providing employment and training for local scientists but also an avenue for cultural understanding through direct social links. Additionally, it increases the effort and investment in research and development in science that can result in shared intellectual property. In the longer term this has the potential benefit of enhancing the regional economies by the development of this intellectual property into products or services.

An important area of research where the ASEAN countries have a real need and Australia has a very significant international reputation is in infectious diseases. The major problems include diseases such as tuberculosis, dengue fever, HIV and malaria. Increased collaboration between Australian and ASEAN scientists in these areas increase the opportunities to discover potential new treatments.

Mechanisms to enhance contact between scientists of Australia and ASEAN would increase the opportunities for enhancement of regional economies and also cultural links and understanding. This could be enabled by an Australian Government program that funded joint collaborative research and training between Australian and ASEAN scientists particularly in health issues that were of major relevance to these countries.

WEHI Field Studies training and Technology Transfer to ASEAN Countries

WEHI has for over twenty years been committed to field studies and to training scientists from countries where malaria and other infectious diseases are endemic. Listed below are some examples of training, capacity building and collaboration with ASEAN countries:

Indonesia:

In 1997, WEHI signed a formal collaborative agreement with the Eijkman Institute in Jakarta to form a 'corridor of science' between the two countries. This collaboration was funded by the Australian Government and allowed a number of scientists from the Division of Infection and Immunity to spend up to five years at the Eijkman Institute where they worked side-by-side with Indonesian counterparts. Additionally, Indonesian scientists visited WEHI for varying periods for both collaboration and training. This was a very successful program that provided capacity building as well as training and direct collaboration with Indonesia, nurturing an interaction that is continuing to this day. Indonesian scientists continue to spend short periods at WEHI for collaboration and training. This program has greatly enhanced contacts with Indonesian scientists.

Vietnam:

In 2001, a collaborative project was developed between WEHI, University of Melbourne and the National Institute of Malariology, Parasitology and Entomology (NIMPE) in Hanoi, funded by The Atlantic Philanthropies. This program aims to have a major impact on malaria and hookworm in Vietnam. The goals are to strengthen programmatic capacity in Vietnam both at the national and provincial level and to build capacity at NIMPE to respond to problems associated with highly drug resistant malaria, control of hookworm infections and iron deficiency in women. This program has been an outstanding success and has greatly enhanced NIMPE's infrastructure and capacity to monitor the emergence of drug resistance in malaria. A program on hookworm has been commenced in the province of Yen Bai to determine if drug treatment and iron supplements can have a positive effect on the health of women and their children. Follow up monitoring after treatment with mebendazole has greatly decreased the prevalence of hookworm. The success of this program suggests that treatment of women with mebendazole and iron supplements will have a significant effect on the health of the communities in Vietnam. This program has provided a means to control hookworm in Vietnam. It has also provided increased investment into research in Vietnam by allowing NIMPE to leverage the work done in these projects to attract additional funding.

Malaria Research Workshops:

Researchers in the Infection and Immunity Division are world leaders in genetic manipulation of *P. falciparum* and have ensured that this technology has been widely disseminated amongst the malaria community. Initially this involved international and local scientists training within the Division for up to four months. In 2002, to meet the need of scientists working in endemic countries, WEHI initiated a Malaria Transfection Workshop, which was held in New Delhi and funded by the World Health Organization (WHO/TDR) and MR4 (Malaria Resources). The great success of this workshop has led to two further workshops being held, in India and Bangkok, with funding from both WHO/TDR and the Howard Hughes Medical

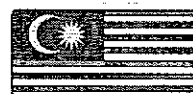
Institute. This has provided training for many scientists from ASEAN countries allowing technology transfer and scientific contacts to be established.

Submitted by:

Professor Suzanne Cory, AC FAA FRS, Director

Professor Alan Cowman, FAA, Head of Infection and Immunity
Division

15 August 2008



CORAL TRIANGLE INITIATIVE

ON CORAL REEFS, FISHERIES, AND FOOD SECURITY

A new multilateral partnership to help safeguard the marine and coastal resources for future generations



CALL FOR ACTION

- Expert support to develop CTI Plan of Action;
- CTI Technical Working Group Meetings;
- Targeted Research on CTI areas especially on tuna spawning, climate change adaptation and threatened species status;
- Senior Officials Meetings (SOMs);
- CTI Ministerial Meeting;
- CTI launched at World Ocean Conference 2009;
- CTI promotions;
- Implementation of CTI programs in pilot areas in each country;
- Implementation of CTI programs in priority seascapes;
- Development of marine protected areas network;
- Alternative livelihood programs;
- Establishment of a rapid alert system for marine biodiversity in the Coral Triangle.

The Region

The 5.7 million km² of the Coral Triangle is home to the highest diversity of marine life on earth. This region stretches across six countries: Indonesia, the Philippines, Malaysia, Papua New Guinea, the Solomon Islands and Timor Leste. The Coral Triangle is recognized as an area of global significance, blessed with over 75% of known coral species, over 30% of the world's coral reefs, over 3,000 species of fish, and the greatest extent of mangrove forests of any region in the world.

These extraordinary marine biological resources directly sustain the lives of over 120 million people and benefit millions more worldwide. The primary human benefits include:

- Direct livelihood, income and food security benefits
- Major spawning and nursery ground for commercially important tuna species, which support multi-billion dollar industry;
- Healthy marine ecosystems contribute to a growing nature-based tourism industry;
- Healthy reefs systems and mangroves help to protect coastal communities from storms and tsunamis, reducing casualties, injuries, and reconstruction costs;
- On many of the region's islands, the marine and coastal realm is a foundation for traditional cultures and social fabric.

Unfortunately, the marine-based natural resources of the CT and the economic and social benefits they generate are at risk, threatened by a range of factors. These include over-fishing, destructive fishing practices such as cyanide and blast fishing, coral bleaching and ocean acidification due to global climate change, pollution, and sedimentation from coastal development. Individually, each of these threats can weaken the living ocean's health; combined they are causing a situation of crisis that only a transformational approach can resolve.

The Coral Triangle Initiative (CTI)

In August 2007, President Susilo Bambang Yudhoyono of Indonesia wrote to seven other leaders proposing a new Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI). Responding positively, the leaders formally endorsed the CTI in the APEC Leaders Declaration on Climate Change, Energy Security and Clean Development in early September. The CTI was again formally endorsed in November by Brunei-Indonesia-Malaysia-Philippines East ASEAN Growth Area, (BIMPEAGA) and ASEAN. Prime Minister Somare of Papua New Guinea expressed his support for the CTI in his keynote address to the South Pacific Regional Environment Program's (SPREP) regional meeting in October. Thus the stage was set for Senior Officials to meet and agree upon a way forward for the CTI.

CTI Regional Secretariat within
the Government of Indonesia
Ministry of Marine Affairs and Fisheries
Directorate General Marine Coasts and
Small Islands

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The six governments met in a first formal CTI Senior Officials Meeting (SOM) in Bali on 6-7 December 2007, where they agreed on:

- a common understanding of the value of the CT's marine and coastal biological resources;
- a provisional set of nine Guiding Principles;
- a framework for a "CTI Plan of Action" to be developed during 2008 and adopted at the highest political level.

This meeting was followed by a consultation event attended by Senior Officials from Australia, the United States, the Global Environment Facility (GEF), the Asian Development Bank (ADB) and several non-governmental organizations (NGO). Each of the invited guests endorsed the outcomes and made offers of support to the process moving forward.

Following the meeting, representatives from all participating organizations met with President Yudhoyono to report on the outcomes of the CTI Senior Officials Meeting. The President thanked all the CT six governments for their commitment, and the other governments and external partners for their support to conserve marine resources.

© WWF-Indonesia / Sigit SIAGAN



Goals and Objectives:

- "Priority Seascapes" designated and effectively managed (large-scale geographies prioritized for investments and action, where best practices are demonstrated and expanded)
- Ecosystem approach to management of fisheries and other marine resources fully applied
- Marine Protected Areas (MPAs) established and effectively managed, including community-based resource utilization and management
- Climate change adaptation measures achieved
- Threatened species status improving

Actions

- Assessment, monitoring and information management
- Sustainable financing
- Capacity building
- Public/private partnerships
- Enabling laws and policies

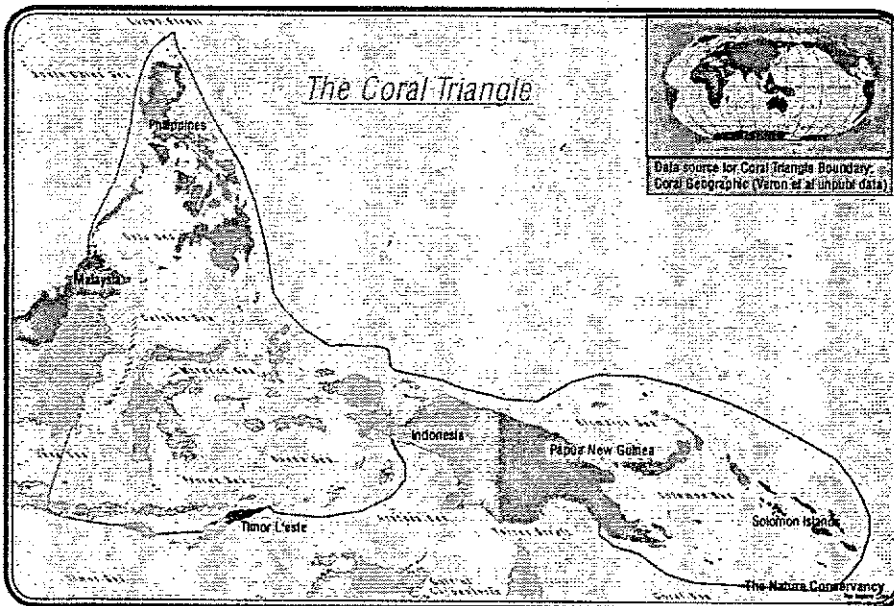
The Roadmap

The SOM endorsed a Roadmap, outlining a process to develop the CTI Plan of Action. To facilitate this process:

- The Indonesian Government will continue in a Secretariat role for the CTI.
- A CTI Coordination Committee (technical working group) charged with developing the Plan of Action has been set up, composed of representatives from each country.
- Between January - June 2008, intensive consultations will be conducted in each country.
- A second meeting of CTI Coordination Committee will be held in Solomon Islands during the end of July or early of August 2008.
- A third meeting of CTI Coordination Committee will be held on 22-24 September in the Philippines.
- A second meeting of the SOM will be hosted by the Philippines on 25-26 September 2008. There a final draft of the CTI Plan of Action will be reviewed for adoption.
- Once adopted it will be recommended to ministers in all six countries for approval.
- First Ministerial Meeting will be held at December 4-6 2008.
- The World Oceans Conference in Manado, Sulawesi (Indonesia) in May 2009 could provide an opportunity for a Coral Triangle Summit of leaders to adopt a CTI Plan of Action and announce specific programs in each country to translate the Plan into tangible action.

In the meantime a number of developments are taking place in dialogue with international donors and partners across the full range of existing and potential stakeholders - other governments, bi- and multilateral agencies, industry actors, civil society groups and the local communities for whom success of this initiative is so important.

amended on the 1st CTI Coordination Committee Meeting, Jakarta 22-24 May 2008.



20 August 2008

Nancy Pritchard
Manager – International Programs
Australian Academy of Science
GPO Box 783
Canberra ACT 2601
AUSTRALIA

Dear Nancy

Contribution to the Australian Academy of Science submission to the enquiry on opportunities for expanding Australia's relationship with the countries of ASEAN

Thank you for the opportunity to contribute to the Australian Academy of Science submission to the above enquiry.

The Menzies School of Health Research (Menzies) is Australia's leader in Indigenous and tropical health research. Menzies' evidence-based approach leads to ways to better prevent, treat and diagnose disease and to show how the social and physical environments in which health care is delivered can be improved for better health outcomes. Menzies' areas of expertise include Indigenous child and mental health, the social determinants of health such as housing and poverty, tropical and emerging infectious diseases, preventable chronic diseases and, increasingly, international health.

Menzies has established an international reputation as a centre for research and training in global health that includes major regional collaborations with Indonesia, Thailand, Timor Leste and Pacific Island countries including Fiji, Samoa, Papua New Guinea, and Tonga. Menzies has managed contracts valued at more than \$12 million from national and international funding agencies, including AusAID, the National Institute of Health (USA), Wellcome Trust (UK), World Health Organization (WHO), World Heart Federation, and the National Health and Medical Research Council (NHMRC) and has ongoing collaboration with WHO's range of neonatal and child health activities.

Menzies works closely with respective Ministries of Health to identify priorities in women's and children's health, including ensuring the integral components of training and capacity building. Menzies also provides direct support to countries of the Region in the delivery of neonatal and child health interventions through implementation of the Integrated Management of Childhood Illness, developing and operationalising national child survival strategies and improving hospital care for children. This will be further enhanced through the AusAID Women's and Children's Health Knowledge Hub, which Menzies has formed together with two other Australian partners. Menzies' Capacity Statement on international health, and a brief summary of Menzies' partnerships in the Asia Pacific region are attached.

Menzies' experience has been that medical research contributes directly or indirectly to a number of the aims of this enquiry. Specifically it has been well documented that:



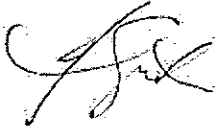
- regional security can be directly affected by factors such as pandemics, or indirectly compromised by social instability caused by high rates of mortality and morbidity;
- regional economic growth can be similarly compromised by health-related factors;
- the impact of global warming on the region is known to take health dimensions;
- enhancing health research partnerships between Australia and ASEAN countries will yield health information of benefit to Australia and partner countries, and help to build research and broader academic capacity both for Australia and partner countries.

Medical research therefore can play an important role in assisting Australia to expand its relationship with countries of ASEAN and to play its role in helping to meet Australia's commitment to achieving the Millennium Development Goals (MDGs), adopted at the Millennium Summit of the United Nations in September 2000.

Medical research should therefore be a central plank of Australia's foreign policy goals and activities in countries of ASEAN and elsewhere. This means ensuring medical research work is part of the mainstream policy, planning and funding arrangements of the Department of Foreign Affairs and Trade and other relevant Government departments.

I hope this contribution is of some assistance, and thank you again for the invitation to participate.

Yours sincerely



Professor Jonathan Carapetis
Director

MENZIES SCHOOL OF HEALTH RESEARCH CAPACITY STATEMENT – INTERNATIONAL HEALTH

The Menzies School of Health Research (Menzies) is Australia's leader in Indigenous and tropical health research. Menzies' evidence-based approach leads to ways to better prevent, treat and diagnose disease and to show how the social and physical environments in which health care is delivered can be improved for better health outcomes. Menzies' areas of expertise include Indigenous child and mental health, the social determinants of health such as housing and poverty, tropical and emerging infectious diseases, preventable chronic diseases and, international health.

In addition to being Australia's leading Indigenous health research institute, Menzies has established an international reputation as a centre for research and training in global health that includes major regional collaborations with Indonesia, Thailand, Timor Leste and Pacific Island countries including Fiji, Samoa, Papua New Guinea, and Tonga.

The International Health Program at Menzies was established in 1996 and since then has established a strong track record in coordinating international health research. Importantly, Menzies has managed contracts valued at more than \$12 million from national and international funding agencies, including AusAID, the National Institute of Health (USA), Wellcome Trust (UK), World Health Organization (WHO), World Heart Federation, and the National Health and Medical Research Council (NHMRC) and has ongoing collaboration with WHO's range of neonatal and child health activities.

Menzies has a particular focus on operational research. Current studies in maternal child health include:

1. quantifying the burden of malaria in pregnancy and early life and developing suitable strategies to reduce these,
2. evaluating delivery mechanisms of women's and children's nutrition interventions,
3. improving rheumatic heart disease control activities in the Pacific,
4. improving maternal health care services in China,
5. undertaking epidemiological studies of vaccine-preventable diseases (pneumococcus, rotavirus, group A streptococcus) and conducting GCP standard vaccine trials in Fiji (pneumococcus, and preparing for group A streptococcus) and
6. infectious disease epidemiology more widely in the Region.

Menzies is also planning comprehensive studies of child mortality and comparative models for delivery of key neonatal and child survival interventions.

Menzies works closely with respective Ministries of Health to identify priorities in women's and children's health, including ensuring the integral components of training and capacity building. Menzies also provides direct support to countries of the Region in the delivery of neonatal and child health interventions through implementation of the Integrated Management of Childhood Illness, developing and operationalising national child survival strategies and improving hospital care for children.

15 August 2008



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Menzies School of Health Research Strategic Partnerships for Health in the Asia Pacific Region

1. Relevant expertise and experience within the Institution

In addition to being Australia's leading Indigenous health research institute, Menzies has established an international reputation as a centre for research and training in global health, including major regional collaborations with Indonesia, Thailand, Timor Leste, Singapore and Pacific Island countries including Fiji, Samoa, Papua New Guinea, and Tonga.

The International Health Program at Menzies was established in 1996 with seed funding of \$700,000 over five years from the NT Government, as part of a gift to the Republic of Indonesia for their 50th anniversary of independence. In the 12 years since then, Menzies' International Health Program has established a strong track record in coordinating international health research. Importantly, Menzies has received funding valued at more than \$12 million from national and international funding agencies, including the National Institutes of Health (NIH-USA), Wellcome Trust (UK), AusAID, World Health Organisation (WHO), and the NHMRC (Australia).

As a result of Menzies' growing reputation as a regional centre of excellence for tropical diseases research and training, a large number of Indonesian, East Timorese and other students have undertaken postgraduate training and research degrees through Menzies and Charles Darwin University (CDU).

Specific collaborations within the region include:

Indonesia:

Menzies has had a partnership with the NIHRD (Ministry of Health, Jakarta) since 1997, arising from the meeting between the NT Chief Minister and President of Indonesia in 1996. Menzies has research and training MOU with NIHRD (Jakarta), and collaborations with the Eijkman Institute, and District Health Authority in Timika, Papua. The early years of the partnership featured collaborative research projects focusing on the prevention and treatment of malaria and TB in eastern Indonesia. Following these formative years, the partnership matured with the broadening of research projects and the construction of a joint Menzies-MoH research facility (the Facility) in Timika, Papua. This Facility has 15 employees with offices, laboratory facilities and accommodation for up to 14 visiting staff.

The translational research outcomes of the joint Menzies-NIHRD Research Facility have been extensive, including participation in the South East Asian Severe Malaria Treatment study, a study that demonstrated a 35% reduction of mortality of severe malaria associated with artesunate compared to quinine. The results not only changed policy and practice in Indonesia as a whole, but also global policy with WHO changing their treatment recommendations of severe malaria from quinine to artesunate. Other studies have changed local treatment policies for community management of malaria.

Menzies has taken an important role in providing ongoing technical and operational support for the Facility. This support has included: senior research support; technical advice to national health policy makers; research training and capacity building; and administrative support. The Facility has also been used to train Indonesia MoH staff.

Menzies has presented at joint Australia – Indonesia dialogues such as:

- *Molecular diagnosis and detection of drug resistant markers in malaria and TB* at the Australia – Indonesia Joint Symposium in Science and Technology (2006)
- *Emerging Infectious Diseases Issues In Our Region* at the Australia – Indonesia Workshop on Human Health, Including Infectious Diseases (2008).

Timor Leste:

In Timor Leste, Menzies has been working closely with *Universitas de la Paz* (UNPAZ) since 2002 on cooperative translational research projects and capacity building initiatives. The achievements of this partnership, which was formalised in 2005 with the signing of a Memorandum of Understanding (MoU) have included:

- Successful completion of a study, using qualitative and epidemiological methods, that examined the knowledge, attitudes and practices pertaining to malaria prevention and health seeking behaviour in four districts of TL;
- Study evaluating the impact of the 2006 conflict on the performance of the health sector;
- Collaborative TB and health sector studies via the first ever randomised control trial examining the use of food as an incentive to TB compliance;
- PhD scholarship secured for Dr Nelson Martin from UNPAZ. Dr Martins completed his PhD through Menzies in 2007 focusing on TB control in TL. In doing so, Dr Martins became the first ever East Timorese medical practitioner to gain PhD qualifications. In 2007 he became Minister of Health in TL.
- AusAID Australian Leadership Awards awarded to Menzies to support and train two East Timorese academic staff from UNPAZ in health research, writing of research publications and grant applicants;

Thailand:

Menzies has a collaboration with The Mahidol-Wellcome Tropical Research Unit at Mahidol University in Bangkok, focussing on comparative malaria studies.

Singapore:

Menzies collaborates with A*Star and National University of Singapore on studies examining the pathophysiology of severe malaria.

Pacific:

An additional component of Menzies' international work is a large-scale collaboration in the Pacific, centred around child health, rheumatic heart disease control, and vaccine

trials. This includes a clinical trials site in Fiji, run in collaboration with the Fiji MoH, Fiji School of Medicine and The University of Melbourne.

Menzies also coordinates the World Heart Federation Pacific Rheumatic Heart Disease Control Program, with demonstration sites in Fiji and Samoa. This is run in partnership with the WHF, the funding agencies (Vodafone Foundation and the State of Geneva Solidarity Fund), and of course the partner agencies in-country: the Ministries of Health.