

Friday, 22 August 2008

Committee Secretary
Senate Education, Employment and Workplace Relations Committee
Department of the Senate, Parliament House

Submission to the Inquiry into the Effects of Climate Change on Training and Employment Needs

Dear Senate Committee,

The University of Newcastle recognises the significant skills required to respond to climate change, and welcomes the Senate Inquiry into the Effects of Climate Change on Training and Employment Needs. As a research led University with wide ranging expertise in climate change, and as an active member of the National Climate Change Adaptation Research Facility, the University is well aware of the substantial developments, particularly in the area of skilled personnel, which will be required to manage the impacts of climate change. The University believes that the demand for climate professionals will be substantial and that a flexible national initiative is required to address and resource this demand.

The University strongly suggests that Australia needs a flexible, national response that is both broad and adaptive in character to the training of graduates and postgraduates in the diverse disciplines needed to respond to climate change. To a large extent Australia's universities have developed skills that reflect the characteristics of their regions. For example, the University of Newcastle has developed well recognised skills in Materials Handling and Coastal Estuaries; two areas of specialisation critical to the Newcastle's coastal location and power and mining industries. Many other universities have developed similar localised specialisations. The Federal Government can capitalise on this diverse national asset by developing a flexible system that can leverage on the existing localised strengths of Universities to develop the skills needed to respond to climate change challenges relevant to those regions.

The University of Newcastle strongly believes that we need to recognise research training - both postgraduate research scholarships (and tuition fees for international students) and postdoctoral training - to ensure that the highest level of capability and expertise is developed in this area in Australia and to benefit developing countries. The University recognises that research training will need to be resourced in order for universities and VET to develop new programs informed by research and current activities and to create centres of education and training excellence across the country.

The Asia Pacific Region

Professor Steffen Lehmann, of the Faculty of Engineering and Built Environment at the University of Newcastle was recently awarded the UNESCO Chair in Sustainable Development for the Asia-Pacific Region. The aim of this position is to enhance interdisciplinary research and identify urban responses to climate change in the Asia Pacific region. The appointment of this UNESCO Chair was founded on the broad ranging and high quality research that is undertaken at the University in areas critical to sustainability such as energy, water, emissions trading, architecture and urban design. There is a need to develop more undergraduate and post-graduate research scholarships, especially for students from developing countries in the Asia and Pacific region to develop the skills needed to respond to climate change.

The University has well established links into the Asia Pacific region, with collaborations with Harbin University in China, links into India, Malaysia and a campus in Singapore. We are well placed to support the Asia Pacific Region in developing the skills sets needed to respond to climate change. We are one of the few Universities to be funded through the Asia Pacific Partnership (AP6) to develop low emissions coal technologies.

The University is developing strong links into southern Africa, and has insight into the management of climate change in that region. Botswana and Kenya, as well as South Africa are likely to exploit their large coal reserves for power generation in the next decade and it is vital that we contribute to the training of their engineers and climate scientists, environmental experts and policy developers so that they can be committed from the outset to low emission coal fired power generation.

The University of Newcastle is very willing to support Australia's response to climate Change. Universities, alongside VET can provide training for climate change professionals and provide capacity to meet the current and future demand for climate change professionals. However, funding is required to attract students, expand the existing training capacity and to provide the impetus to expand this training capacity. Research and Research Training must be included in the development of a national response to the management of climate change. Research will inform us of the state of the art and most appropriate measures needed to respond to climate change and research training will provide a smaller number of the climate change professionals with advanced training to provide responses to the complex technical and sustainable approaches need to combat climate change.

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