

## Interim Report on higher education activities and outcomes for ACIAR Fire in Eastern Indonesia Project.

**Background:** This proposal seeks to formalise an existing cooperation, integral to an ACIAR-funded project (<http://fireindon.ntu.edu.au/>). This project aims to build capacity for fire management in eastern Indonesia. The project is led by \* Professor Greg Hill and Dr Bronwyn Myers of Charles Darwin University (CDU) and Dr Jeremy Russell-Smith (NT Bushfires Council) in Darwin, and Dr Siliwoloe Djoeroemana, recently of Satya Wacana Christian University (UKSW), in Sumba. The overall aim of the project is to build capacity for fire management in eastern Indonesia, focussing on study sites on Flores and Sumba. (\*Professor Hill has now moved to University of Sunshine Coats and is no longer leading the project)

There is considerable capacity in northern Australia for fire research, monitoring, mapping and management. The issues here are similar to those in monsoonal eastern Indonesia. Thus collaborations and mentoring relationships among agency staff, researchers and academics in each region have much to offer.

The project includes educational activities, aimed at building capacity for postgraduate education in savanna management in eastern Indonesia, through the exchange of existing educational materials. UKSW has a small campus in Sumba, and a main campus in Salatiga, Java. The Faculty of Biology at UKSW and the School of Science and Primary Industries at CDU, have many common research and teaching interests, and both offer a coursework Master program. There is potential for postgraduate educational materials in savanna management, developed at CDU with the TS CRC, to be used at UKSW. There is also potential for students from UKSW to study savanna management units at CDU. In addition, research collaborations in several discipline areas are also possible.

UKSW is well positioned to lead or collaborate in research activities in eastern Indonesia. UKSW was originally established by a consortium of churches in that region, and many students at UKSW are from there also. UKSW has a MoU with the provincial Government of Nusa Tenggara Timur (NTT), and with the District Governments of East and West Sumba. The Bupati of East Sumba is on the Board of Trustees of UKSW.

As part of a MoU between UKSW and Timor Tengah Selatan (TTS, one of 5 districts in West Timor), in 2000 UKSW lead a land use survey in central West Timor, in collaboration with BAPPEDA NTT. The final report for this project has just been prepared. It included training of technical staff in soil sampling, and ground water assessment as well as householder interviews. The final report includes land use and resource maps, prepared using *ArcInfo*.

The research and collaborations in NTT are frequently coordinated through the UKSW Centre for Studies in Eastern Indonesia.

UKSW has extensions in eastern Indonesia (High Schools of Economics); one in Kupang, West Timor, and one in Waingapu, Sumba. UKSW also takes part in university accreditation activities in eastern Indonesia and is developing links with Universitas Nusa Cendana (UNDANA) in Kupang in particular. Prior to the independence of Timor Leste, UKSW had links with the national University of East Timor (and still does so although on a reduced scale).

In addition to this network in the region, UKSW also has established research capacity. A number of staff within the Faculty of Biology and University research centres have a PhD and/or research experience in relevant areas. The University also publishes *Kritis: Jurnal Studi Pembangunan Interdisiplin* (Journal of Interdisciplinary Development Studies). This journal is peer reviewed and accredited with the Indonesian Government.

Education collaborations between CDU & UKSW are already underway, as part of the ACIAR project activities. An initial meeting of the education team members, was held in Sumba in December 2003. In order to progress the exchanges and interactions a supporting document has been developed, that introduces the two intuitions and outlines possibilities for exchanges (Attachment 1)

**Objectives:**

- To build capacity for research and postgraduate education in tropical savanna management in eastern Indonesia, with Satya Wacana Christian University,
- To build capacity at CDU for engagement with research and education opportunities in eastern Indonesia

**Benefits expected:** This project will benefit CDU by a small increase in international enrolments in the Tropical Environmental Management and other postgraduate courses in the School of Science & Primary Industries.

The project provides opportunities for CDU staff, and their students, to develop links with academics and researchers in Indonesia, specifically eastern Indonesia.

Staff and students at UKSW will benefit from increased opportunities for collaboration with northern Australian researchers and educators, and the sharing of teaching resources and staff development visits, training and exchanges.

**Project implementation:** Please see attached document outlining the university partners and processes for implementation. Opportunities for exchange and collaboration are currently being investigated by the ACIAR Fire Project university team members.

**Sharing coursework units**

CDU has established curriculum emphasising the management of wet-dry tropical environments. Project members and CDU staff have expertise in tropical savanna ecology, function and management. Learning materials may be used at UKSW, by making learning materials offered at CDU available to staff at UKSW for customisation and/or direct use. The Faculty of Biology (UKSW) is in the process of developing a Master of Environmental Management, and is interested in including the types of subjects offered in Tropical Environmental Management program at CDU. At present the Faculty of Biology-UKSW is also preparing to offer some English language curriculum.

**Cross-institutional and joint enrolments**

Students at CDU may take elective units or semesters of study at UKSW, and vice versa (bearing in mind languages of tuition and entry requirements).

**Research training**

There is potential for research Master, PhD or coursework Master projects or develop from the ACIAR Fire Project, although additional scholarship and operational funding for these would have to be secured.

As the Faculty of Biology (UKSW) is currently developing capacity to supervise PhD students, co-supervisory arrangements with CDU staff would be welcomed.

## Research collaborations

The Faculty of Biology (UKSW) has current research expertise in molecular methodologies for measuring soil health. Similar projects are currently being developed in a CDU/TS CRC collaboration. There is scope for a new collaborative project located in eastern Indonesia.

## Guest lecturing

It may be possible to also develop opportunities for staff exchanges and guest lectureships between CDU and UKSW.

## Key milestones & target dates:

### Completed:

*December 2003:* representatives from UKSW and CDU met in Sumba, Indonesia.

*March 2004:* Development of documentation to support exchanges between CDU & UKSW.

*May 2004:* Visit to CDU by Dr Agna Krave (UKSW) and signing of Faculty level MoU and discussion of future collaborations. (Attachment 2)

*June 2004:* Visit to UKSW by Dr Penny Wurm (TS CRC, on behalf of CDU) to commence implementation of education collaborations, and draft University-level MoU. (Attachment 3)

*December 2004:* Customisation of existing learning materials for SES501 *Landscape Ecology & GIS* to be trialed at UKSW

*April 2005:* Forest Inventory training workshop held in Sumba & Flores, lead by NT Bushfires Council, UKSW and CDU staff, and attended by UKSW students and government agency staff.

*May 2005:* Visit to CDU by Dr Ferry Karwur, funded by Crawford Fund. Dr Karwur attended the workshop *Conservation & business: natural resource-based enterprise development and livelihoods*, and met with university staff to further develop the MoU. (Attachment 4)

*July 2005:* Visit to CDU by Mr Dharma Palekahelu. Mr Palekahelu attended the NARGIS 2005 workshop, funded by the Crawford Fund, and met with flexible learning staff to develop collaborations. He also discussed prepared applications for postgraduate candidature at CDU. (Attachment 5).

### Implimented:

*June 2005:* Trial offering of adapted SES501 *Landscape Ecology & GIS* UKSW

*June 2005:* Mr Rohan Fisher and Mr Dharma Palekahelu conducted a GIS training workshop at UKSW, Salatiga. This has resulted in the establishment of a regional GIS/RS forum to foster capacity. (<http://i.domaindx.com/forumgiskti/>) with a view to ongoing GIS/RS training collaborations.

*June 2005:* UKSW has identified funding for guest lecturing position in GIS-RS/IT for a CDU staff member.

### Planned:

Development of a block-residential unit in natural resource management in eastern Indonesia for CDU and UKSW (and other students).

Staff development, training and education for UKSW staff at CDU.

Staff exchanges and guest lecturing.

Ongoing collaborative development of flexible learning materials in natural resource management, focusing on case studies in eastern Indonesia.