Project 8.1
Capacity Building, Education and Training

Project Objectives

This project provides for the capacity building, education and training needs of the CRC for Catchment Hydrology. The project will develop supplementary training programs for PhD students in the CRC, disseminate catchment hydrology and management concepts to end-users, and develop training strategies that ensure effective adoption and integration of research findings across CRC programs and projects. As such, the project works in close collaboration with the CRC's Communication and Adoption Program and with the training and education projects in the CRC for Coastal Zone, Estuary and Waterways Management.

Expected Outcomes

1. Postgraduate training
   - Training needs analysis
   - High quality doctoral and masters graduates
   - Supplementary training program for CRC students
   - Honours and masters level courses on integrated catchment management
2. Train-the-Trainer courses and Stakeholder Workshops
   - Training needs analysis
   - Training manual on workshop facilitation and program of train-the-trainer skill workshops
   - A program of short courses, training and other capacity building activities to address the identified needs of stakeholders in partnership with Program 7
3. Schools Program
   - An innovative program of support for school students and teachers to facilitate participation in action learning programs that contribute to catchment conservation and management
   - Development of innovative educational materials based upon CRC research products (eg industry reports)

Project Outline

1. Postgraduate Training

The program for doctoral students in the CRC is based upon the recruitment of high quality students and their immersion in a coordinated program of research and supplementary training. This involves support for their own research projects, participation in related CRC projects and industry placements where they will gain an appreciation of issues in the Focus Catchments and the interests and needs of agencies and groups involved in catchment management.

A special program of workshops, short courses, structured Internet discussions, seminars and conference participation, study tours, industry placements, etc. will also be provided. This program will develop expertise in key areas such as science communication, the science-policy interface, science and environmental management, and public participation. These studies will complement the traditional research training provided in a postgraduate degree.

The Cooperative Research Centre for Catchment Hydrology is a cooperative venture formed under the Commonwealth CRC Program between:

- Brisbane City Council
- Bureau of Meteorology
- CSIRO Land and Water
- Department of Land and Water Conservation, NSW
- Department of Natural Resources, Qld
- Department of Natural Resources and Environment, Vic
- Goulburn-Murray Water
- Griffith University
- Melbourne Water
- Monash University
- Murray-Darling Basin Commission
- Southern Rural Water
- The University of Melbourne
- Wimmera Mallee Water

Associates:

- Hydro-Electric Corporation, Tas
- SA Water
- State Forests of NSW

A coursework subject(s) in integrated catchment management will also be developed and integrated in the masters, graduate diploma and honours programs of partner universities. These will be developed in Flexible Delivery format to facilitate adoption. These subjects (and components of them) may also be offered as part of the short-course and training program of the CRC.

These activities are being developed in partnership with the training and education program of the CRC for Coastal Zone, Estuary and Waterways Management.

2. Train-the-Trainer courses and Stakeholder Workshops
An integrated suite of resources and courses is being undertaken to develop the training skills of CRC researchers, Focus Catchment Coordinators and other stakeholders. This Train-the-Trainer approach will enable those who conduct research to deliver the outcomes of research first-hand by working closely with resource agency staff, other environmental professionals and community members.

3. Schools Program
Part of the capacity building role of this project involves working with CRC partners and other related agencies in the development of their school education programs. This will involve providing an advisory service on community education and communication strategies and on appropriate curriculum and resource development projects for schools.

Practical assistance with these tasks and related professional development will be provided on joint-funding and contractual bases. In particular, programs of curriculum development and teacher in-service training will be developed in collaboration with CRC partners, related CRCs, education officers in councils, water boards, government agencies and community groups and relevant teachers associations. Relationships will be developed with relevant education officers and syllabus boards to promote ways of enhancing the image, role and importance of science in school curricula.

Linkages

The project links with all research projects in the CRC as it seeks to enhance the postgraduate education experience of PhD students in the CRC. Many activities will be in collaboration with the CRC for Coastal Zone, Estuary and Waterways Management

End Users and Stakeholders

This project works with the CRC's Communication and Adoption Program to develop the understanding and adoption of the research outcomes of all CRC projects among all stakeholders in the CRC and the wider catchment industry and to build their capacities to utilise these results.

Staff Involved

Project Leader	Assoc Prof John Fien (Griffith University)
Researchers	Prof Rodger Tomlinson (Griffith University) Dr Roger Hadgraft (Monash University) James Whelan (Griffith University) Chris Carroll (Department of Natural Resources, Qld) Andre Taylor (Brisbane City Council)

Participating Organisations

Griffith University • Department of Natural Resources, Qld • Brisbane City Council

For Further Information: Assoc Prof John Fien Cooperative Centre for Catchment Hydrology
Faculty of Environmental Sciences, Griffith University, Nathan, Brisbane 4111
Tel: 07 3875 7105 • Fax: 07 3875 7459 • Email: J.Fien@mailbox.gu.edu.au

www.catchment.crc.org.au/education