

UNEP-IETC

# Environmental Technology Centre

## Quarterly Report #1

A Summary of Activities: January - March



# QR1.2003

## ETC Visitors

Throughout the year the ETC attracts many visitors from all over the world, as well as our many industry partners. A selection of those visitors is listed below:

Roger Poulin  
Associate Director, Quebec Metro High Tech Park & delegates from E+ Zernica European Delegation  
(18 Feb 2003)

David Marks, Greg Smith, Grant Acres  
Boral, Midland Brick (pictured top right)  
(25 Feb 2003)

Howard Cearns & Nick Tromboli  
Little Creatures (pictured right middle with Garry Scadding  
and pupils from Lance Holt Primary School)  
(7 March 2003)

Masters of Environmental Science Students, Sarawak,  
Malaysia,  
(20 students visiting the Murdoch University, Perth Campus  
(24 March – 4 April, 2003)



(pictured above - the ETC Team at the Strategic Planning Seminar)

## Publications

### Conference Papers

Gregory Priest, Martin Anda, Kuruvilla Mathew & Goen Ho, (2002) Domestic Greywater Reuse as Part of a Total Urban Water Management Strategy, AWA OzWater Conference April 6-10, 2003, Perth, Australia

### Conference Posters

Joshua Byrne, Jeff Sturman & Goen Ho, An Assessment of a Low-cost Soil Moisture Controller for Water Conservation in Domestic Irrigation Systems, AWA OzWater Conference April 6-10, 2003, Perth, Australia



(Pictured above Dr Jaya Nair, right, supervises Noraisha Oyama, left, on a wastewater hydroponics experiment)

## Educational Activities

ETC Staff contribute to the Environmental Science undergraduate degree programme, as well as supervising postgraduate research scholars. In first semester 2003 staff taught in the following subjects:

N206 Water Conservation and Auditing  
15 students completed

N211 Pollution and its Control  
130 students commenced

N430 Advanced Environmental Science Topics  
17 students commenced

Staff also conduct educational activities for other groups, a selection is listed below:

Maar Mooditj Aboriginal Environmental Health Workers Training Workshop (12 Feb)

Lance Holt School – Solar Cooking and Waste Management Workshops (28 Feb, 7 & 14 March)

Murdoch College Student Community Service Programme (12 students 11 Feb – 8 April)

Green Reserves Irrigation Course, for Conservation WA (4, 11, 18 & 25 March)

Weld Square School Solar Cooking Workshop (26 March)

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## Tour Groups

The ETC welcomes groups for tours, workshops and other activities. Some of these services attract a small fee to cover costs. For more information contact the ETC on 9360 7310 or email etc@murdoch.edu.au. In the early part of the year the ETC welcomed the following groups to the Centre:

Winthrop Baptist College (20 Feb – 32 students)

Somerville Baptist College (20 Feb – 26 students)

Murdoch Univ Theology Students (27 Feb – 16 students)

Quintillion Primary School (4 March – 34 students)

Centre for Organic Waste Management Board (7 Feb)

Swan TAFE Environmental Studies (10 March – 26 students)

Bunbury TAFE Aboriginal Environmental & Sustainable Tourism Students (10 March – 22 students)

## Representation

by ETC Team Members

Members of the ETC Team are asked to join numerous committees and hold titles with external organisations. Below are some of the organisations members are associated with.

Launch of the ESTis, Osaka, Japan, 26 Feb (Goen Ho)

IWA Meeting, Asia Pacific Resource Group, Tokyo, Japan, March (Goen Ho)

World Water Forum Tokyo Japan, March (Goen Ho)

Subiaco Sustainable House Monthly Committee Meeting (Martin Anda)

Wanneroo Sustainable House Committee Establishment Meeting (Martin Anda, David Beyer, Gary James)

Murdoch University Environment Committee (Martin Anda)

WA Office of Science & Innovation Workshop March 13 (Martin Anda)

WA Waste Management Board 7 Feb (Goen Ho, Kuruvilla Mathew)

## Conferences & Seminars

(organised by or in conjunction with the ETC)

WA State Sustainability Strategy Science and Technology Seminar (11 Feb)

Vermiculture Public Workshops (2<sup>nd</sup> Saturday each month in partnership with Barefoot Engineering & Soil Life) (Pictured below Scott Jorgensen, right, leads participants in the Soil Superhero Seminar)



## Conferences Attended

by ETC Team Members

WA Aboriginal Housing Conference, DHW, Mandurah, Australia, Feb 4-5 (Martin Anda Andrea Jardine Orr)

AWA OzWater Conference Perth, April 6-10 (Gregory Priest, Joshua Byrne, Kuruvilla Mathew, Goen Ho)



(Pictured above Noraisha Oyama, left with Murdoch College Student volunteers and Gary James, wearing the hat. Gary supervised the student volunteers.)

## Travel & Field Trips

Team members travel throughout the year to complete project work, field work or to liaise with key stakeholders in sustainable development. Below are a selection of the trips taken during the early part of 2003.

Australian Conservation Foundation visit to new 60L Building, Melbourne Victoria Jan (Martin Anda)

Glenn Hill Field Trip, Feb (Joshua Byrne)

Green Skills, Denmark Wastewater Options Fieldwork, Feb (Gregory Priest, Martin Anda, Peter Stuart)

AHURI, Alice Springs NT March (Martin Anda)

CRC Sustainable Tourism, Yulara NT March (Martin Anda, David Beyer Bernhard Elber)

CRC Desert Knowledge, Alice Springs NT, March (Martin Anda)



Professor Goen Ho, Chair of the ETC Board, recently returned from UNEP-IETC Osaka where the ESTis International database was launched. The ETC at Murdoch University in Perth Western Australia is one of the founding members of ESTis and continues to develop the nESTs Web based technology transfer system.

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ETC Team members travelled to Australia's Red Centre to assess sustainable tourism operations for the Centre for Cooperative Research on Sustainable Tourism.



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## Current & Commencing Projects

The ETC relies on funded project work. Team members work on a variety of projects from large national competitive grant funded projects to small consultancies. Research Manager Martin Anda encourages postgraduates and undergraduates to become involved with projects to gain experience. Listed below are current and commencing projects for the first quarter of 2003. The ETC works locally, nationally and internationally and strives to develop strong partnerships with industry.

Glenn Hill Project Nursery Upgrade, Glenn Hill Community and Argyle Diamond Mine, Joshua Byrne

Independent Technical Assessment of Workplace Thermal Comfort for the WA Industrial Relations Commission, M Anda & P Calais

Medium Scale Vermiculture Unit for Organic Food Wastes for St John of God Hospital, Martin Anda & Soil Life

Wastewater Options for Denmark Sustainable Living Centre, Green Skills Denmark, Gregory Priest, Martin Anda

Indigenous Housing and Governance: Case Studies for AHURI, Martin Anda, Andrea Jardine-Orr

CRC Sustainable Tourism Project, Martin Anda, David Beyer

CRC Desert Knowledge: Theme II Maintaining the Basics, Martin Anda, David Beyer

Integrated Urban Water and Energy Management and Green Building Guidelines at Timbers Edge for Peel Waters Pty Ltd, Martin Anda, David Beyer, Phillip Calais

Integrated Urban Water and Energy Management and Green Building Guidelines at the Beverley Circular Village for Southern Avon Enterprise Agency, Martin Anda, Joshua Byrne, David Beyer, Phillip Calais

Water Conservation in Remote Aboriginal Communities, Western Australian Remote Initiative Scheme, Kuruvilla Mathew, Gregory Priest

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Helen Bucknell, Environment Officer at St John of God Hospital inspects the industrial worm farm set up by the ETC and Soil Life to process organic waste at the hospital.



## Reports

The ETC produces a variety of reports throughout the year for clients, consultancies, projects and government departments. Although a quiet time of the year the first quarter saw four major reports completed.

CRC Sustainable Tourism, Project Best Practice Model for Sustainable Tourism Facilities in Remote Areas, Literature Review (David Beyer, Martin Anda, Bernhard Elber)

Assessment of a Heat Transfer Systems, Final Report for Solectair Pty Ltd (Martin Anda, Phil Calais)

Sustainability Options for a Circular Land Development, Beverley WA, for the Southern Avon Enterprise Agency (Martin Anda, Joshua Byrne, David Beyer)

Peel Waters Lifestyle Village P/L Concept Plan for Integrated Urban Water Management and Energy Efficiency (Martin Anda, Phil Calais)



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## Site Projects

The 1.7 hectare permaculture garden and technology display site requires substantial and ongoing maintenance. The ETC runs two work programmes to enable this work to be carried out. Together with Australian Conservation Volunteers and Bridging the Gap (both funded through the Federal Government's Work for the Dole Scheme) the ETC runs both a Green Reserves and Work for the Dole Programme on site. The ETC prides itself on bringing together people from diverse backgrounds and encouraging volunteers to stretch themselves by becoming involved in the many and varied site based projects.

Later in 2003 the ETC Site will open to the public as part of the ABC Open Garden Scheme. It will also further develop the Outside Classroom programme for primary and high schools.

Listed below are the major site based projects completed during the first quarter of 2003.

Work for the Dole  
Supervisors Karen McKenzie, Otti Bajsa, Michael Sherriff

Green Reserves  
Supervisors Joshua Byrne, Michael Sherriff, Karen McKenzie

RAPS Upgrade, Joshua Byrne, John Hunt, Garry Scadding

Irrigation Upgrade, Joshua Byrne, Karen McKenzie



Above, ETC Staff and Green Reserves pose in front of a new irrigation control unit in the ETC orchard - this unit was part of the major irrigation upgrade on the site.

Below, Karen McKenzie supervises a Work for the Dole crew laying new irrigation and lawn outside the ETC Seminar Room. Subsurface pipes irrigate the lawn with effluent from a Biomax aerobic treatment unit which treats wastewater from the ETC Kitchen and toilets.



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