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11/25/2008

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Australian Sustainable Schools Initiative - What's going on in schools and in teacher education programs?

Dr Lyn Carter

Australian Catholic University

Summary of Talk




It is now beyond doubt that the global outlook is profoundly environmentally unsustainable. The links between limits to growth, hyper-consumption levels, climate change, biodiversity loss, water shortages and ecosystem destruction have been thoroughly documented and are now widely accepted. Clearly, a change of culture is required to reshape human relationships with the natural

systems, and education, whether at the university level or within the school sector, has a role to play. This talk discusses education for sustainability (Efs) and futures thinking focusing on the types of initiatives currently being implemented in Australia. In particular, it describes the Australian Sustainable Schools Initiative (AuSSI) that has been developed as a co-ordinated Federal, State and Territory government project that aims to produce a professional learning framework for educational communities that provide Efs. Many examples from both the university and school sector are included.

Brief Biography

Lyn lectures in science, technology and sustainability education to undergraduate primary and secondary teacher education students in the Trescowthick School of Education on the Melbourne Campus of the Australian Catholic University. She also lectures in postgraduate education particularly in the areas of research methodologies and contemporary issues in curriculum. Lyn was recently awarded a Citation for Outstanding Contribution to Student Learning from the Australian Learning and Teaching Council for her teaching in the Australian University sector. Her Citation (with Dr Caroline Smith) was for *leadership in the development and implementation of an Education for Sustainability focus within teacher education and professional learning programs.*



 Australian Catholic University

Brisbane Sydney Canberra Ballarat Melbourne

Education for Sustainability Seminar

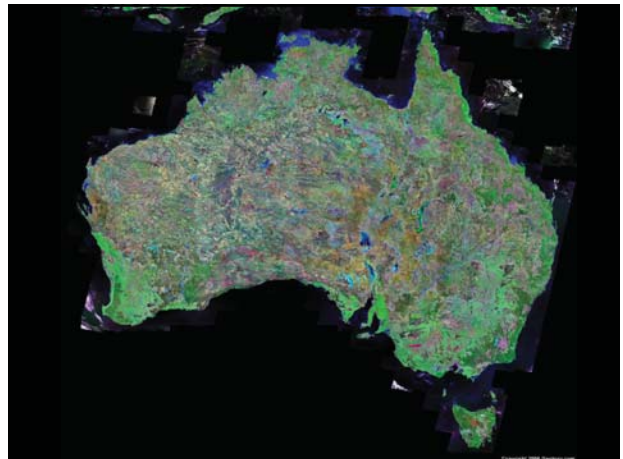
Kobe University

Lyn Carter

 Australian Catholic University

 (ACU)

 Melbourne



Humanity is faced with global challenges of unprecedented complexity

- Population more than 6.5 billion
- Consumption of energy, water and other resources continues to rise as they increasingly disappear – over consumption a disease of the developed world
- Humans use 40% of all sun's energy falling on the earth and 100% of stored energy
- Increasing divide between rich and poor: 80-20
- Climate Change now widely accepted
- Growing awareness that it is now time to act
- United Nations Decade of Education for Sustainable Development – UN DESD

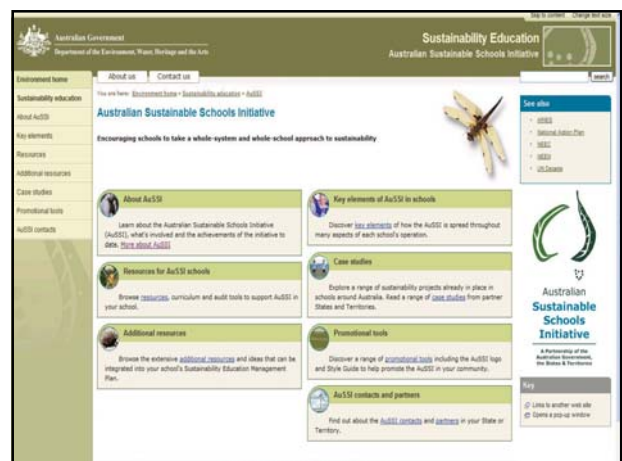
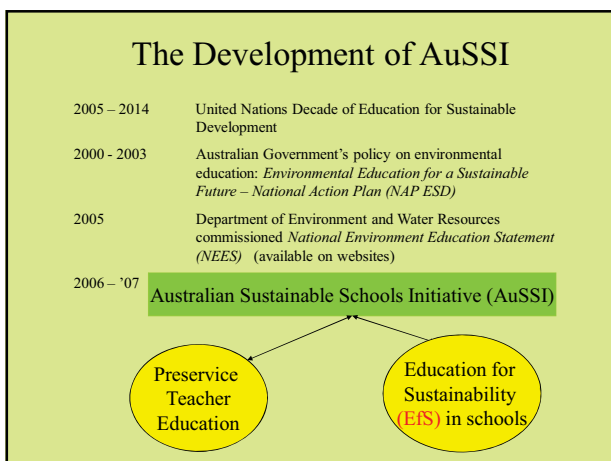
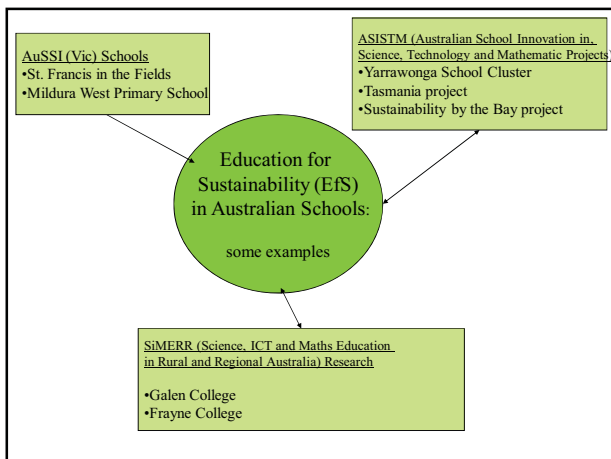
The Great Work of our time is to raise human consciousness to see itself in harmony with the whole creation as an integral part of the Earth Community, not to 'lord it over' the other life forms, but to be in respectful interdependence with them.



Thomas Berry, *The Great Work* (2000)

Catholic priest, cultural historian and ecotheologian

Education for Sustainability (EfS) in Australian Schools



Key Elements of AuSSI in Schools

- Effective EfS is more than the curriculum
- Commitment to AuSSI means sustainability is spread throughout all aspects of school's operations:
 - Governance/policy/charter
 - Teaching and learning
 - Resource and school grounds management
 - Conserving biodiversity
 - Community networks and partnerships

AuSSI in Victoria

AuSSI (Vic) administered by:

Sustainability Victoria

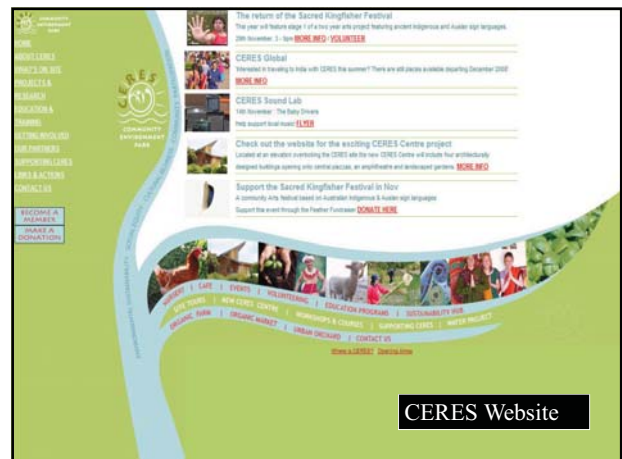
<http://www.sustainability.vic.gov.au>

Centre for Education and Research in Environmental Strategies (CERES)

<http://www.ceres.org.au/>



Sustainability Victoria website



CERES Website

AuSSI Vic 5 Star Accreditation.

Five modules schools complete at their own pace:

1. Core module (Schools Becoming Sustainable)-

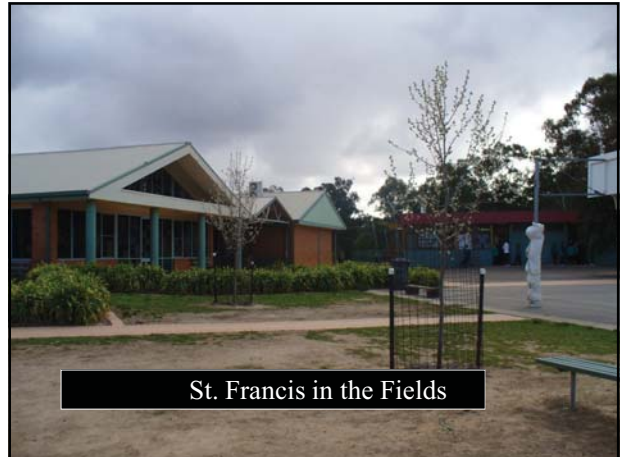
School Environment Management Planning (SEMP), curriculum review with a four year outlook and policy development. The core module includes professional learning about the direction and purpose of EfS and strategies to develop a long-term plan for sustainability for the school

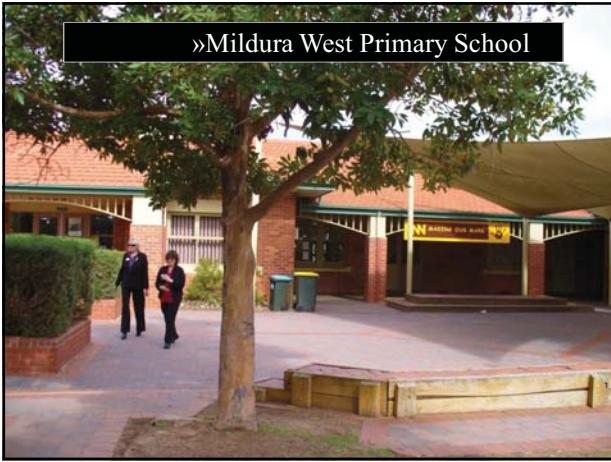
Four optional modules that require monitoring, evaluation, resource conservation and curriculum review

2. **Energy**- energy conservation, renewable energy, air quality and reduction in greenhouse gas emissions;
3. **Water**- water conservation and storm water management;
4. **Waste**- waste/litter minimisation and recycling;
5. **Biodiversity & School Grounds**- developing indigenous gardens that attract native butterflies and birds, developing theme and curriculum based gardens and habitats and developing watering systems.

AuSSI (Vic) Schools

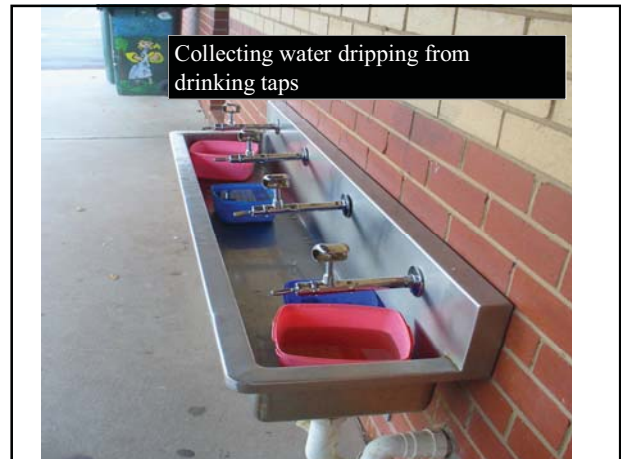
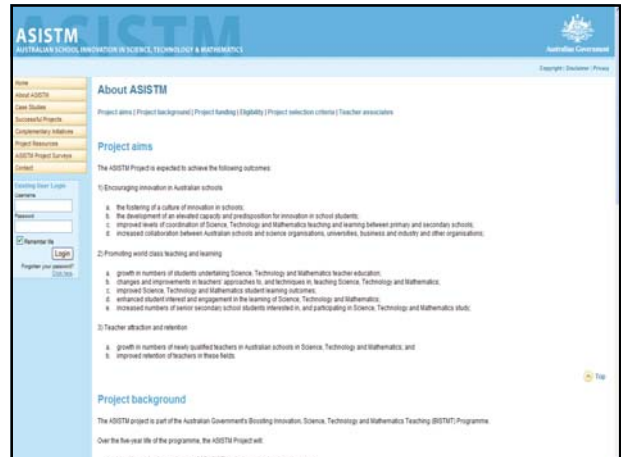
- St. Francis in the Fields
- Mildura West Primary School



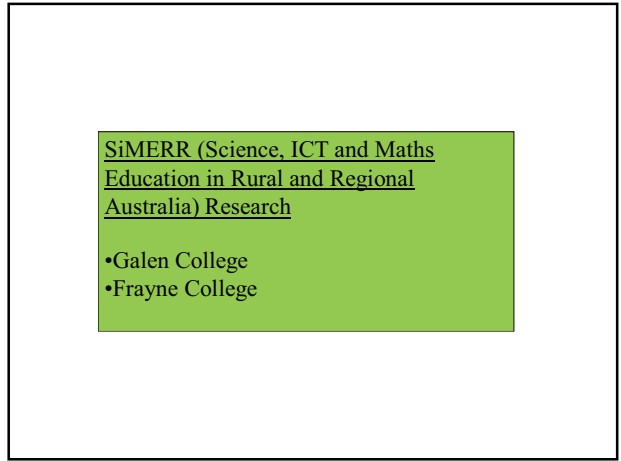
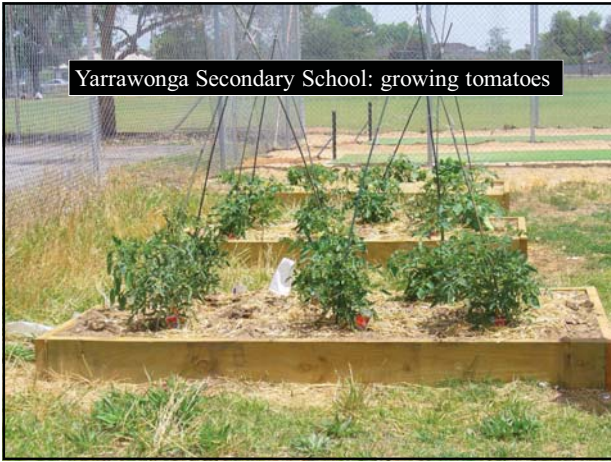


ASISTM (Australian School Innovation in Science, Technology and Mathematic Projects)

- Yarrowonga School Cluster
- Tasmania project
- Sustainability by the Bay project







Effective teachers of EfS – characteristics of high levels of ecoliteracy:

1. A connection to and love of the earth and living things (biophilia)
2. A commitment to the values and practices underpinning sustainability including the value of place;
3. A knowledge base in biophysical earth systems;
4. A socio-cultural/critical understanding of the relationships and underpinning power structures mediated between humans and the natural world;
5. A knowledge of the concepts, tools and techniques of futures education for sustainable futures;
6. Knowledge of appropriate pedagogies for delivery that is consistent with the above strands.

Pedagogies for Education for Sustainability (EfS)

- Transformational
- Holistic and integrated
- Transdisciplinary
- Futures orientated
- Critical and reflective, problem posing, relational and systems learning
- Pedagogies of place

Education for Sustainable Development (ESD)

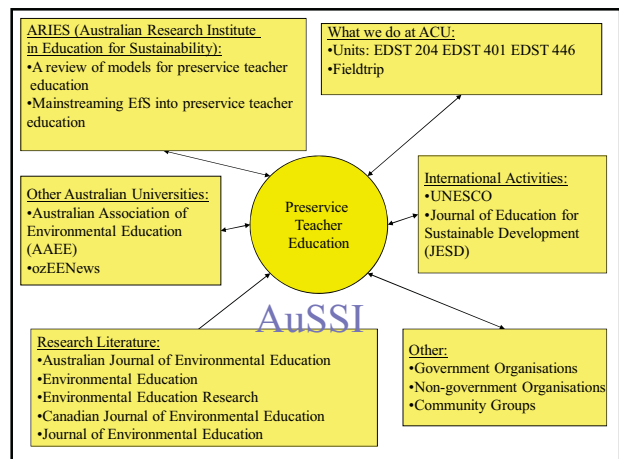
‘The ability of current generations to meet their needs without compromising the ability of future generations to meet their own needs.’

(Brundtland Report, UNEP, 1987- Our Common Future)

Key Action Themes for UN DESD

- Gender Equality
- Health Promotion
- Environment
- Rural Development
- Cultural Diversity
- Peace & Human Security
- Sustainable Urbanization
- Sustainable Consumption

Pre-service Education



ARIES (Australian Research Institute in Education for Sustainability):



Northern Territory System Mapping



What we do at ACU:
 •Units: EDST 204 EDST 401 EDST 446
 •Fieldtrip



Planting indigenous species along creek bank



Rising salt in creek bed



Student's preparing for ecology activities in Box-Ironbark woodland



Wildflowers in Box-Ironbark wood



Evidence of animals in wood-student's mapped plants and animals



Australian Association for Environmental Education Inc

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About AAEE

AR# 81 947 534 235

The Australian Association for Environmental Education (AAEE) is the premier, national, professional association for those who identify themselves as working in the fields of environment or sustainability education. Through its representative roles on state and national committees and its state-based Chapters, AAEE represents and advocates for the interests of environmental education and education. AAEE provides an important network of education, and it supports its members with up-to-date research and policy information, access to resources, and regular workshops and conferences.

AAEE exists to provide a forum for professionals interested in Environmental Education to come together, network and share their knowledge and expertise. It also serves to represent the environmental education fraternity in national discussions and debates.

AAEE also includes a number of Special Interest Groups for members Teacher and Teacher Education, Early Childhood, Director of Education for Sustainable Development. Others are being planned.

AAEE has professional links with similar associations in North America, New Zealand and India. It is currently developing closer ties with Europe and Africa. The biennial, national conferences have an international perspective.

To get an overview of our activities look at: [What's new in initiatives](#)

Are you a member? If not further information and membership forms are available by clicking [here](#)

Contacts

- AAEE Office
- AAEE Executive and Council
- AAEE Special Interest Groups

Other Australian Universities: publish activities and research in AAEE journal and newsletter

ozEEnews

Providing education for a sustainable future

Newsletter of the Australian Association for Environmental Education Inc. ISSUE 94 OCTOBER 2007

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This Thought Self-WATCH 2

By Phil Smith

My two last blogs, neither were intended to comment on the importance of the action, selfWATCH. I received a few responses... all agreeing it's a useful concept. An interesting and engaging idea for the broad range of action that involves us to check our assumptions and actions - to bring a watching brief on our actions, to not only be an observer but also to be a participant in the process.

One response said that having research on critical, especially amongst those of us working in sustainability, "being that the most useful thing for teachers ability practitioners to overcome is the habit of contributing to the biggest cause of our environmental - greenhouse gas emissions." This response suggested a good, hard look at our ethics on such things as being in conference, and if a carbonated event being a "harm of ignorance." Another response said looking at "how to home and other thinking."

Another important question was asked: "Is it just a focus on ourselves? Is it selfishness since when we have to consider that are developed by social, political, economic and cultural forces?" We're always in the dilemma of whose needs: how do we balance our own needs with the needs of our loved ones, our families, our friends, our local communities, with the rest of humanity? And, then do we balance our current needs with those of the future - for us here as a community and for future generations?

Chris Hamilton and Hugh Mackay encourage us to attend to understanding, community and take responsibility. But they recognize that it being, involves balancing of conflicting interests and needs.

We are collectively being in time and action. We recognize, a French philosopher advised his disciples: "I know things, but what I really want to know is how to live." To be in a position to do something about it? Given the complexity of our society and how we live, trade-offs between our good environmental behavior and a not-so-good one may be inevitable. Living and working and health are places where we have trade-offs all the time. And, as with the personal area of our lives, the question about environmental trade-offs needs to be asked: are trade-offs good enough?

Responses point to the importance of how the notion of selfWATCH gives attention to dimensions of self and watching what self? How deeply do we look and what do we see? They, what do we do about it? These questions to some alternative to...