Documenting good practice in Education for Sustainability in NSW

The Framework
Daniella Tilbury and Katie Ross

All Sections of this resource are available for download from http://www.aries.mq.edu.au and http://www.nccnsw.org.au
Living Change
Living Change aims to highlight innovative NSW programs that are taking brave steps towards Education for Sustainability. It is comprised of three sections which together provide a framework for documenting good practice in Education for Sustainability as well as two case studies which aim to encourage practitioners to document their own experiences.

The Framework
The framework section provides an introduction to the resource and the concepts underpinning Education for Sustainability. Based on these concepts this section presents a documentation framework which can be used by practitioners to capture their experiences in order to inspire and educate others.

Case Study A: Cool Communities
Cool Communities is a nationwide partnership program focused on making changes in households towards greenhouse gas abatement. This example case study focuses on how the NSW Cool Communities program was aligned with Education for Sustainability components.

Case Study B: Sustainable Schools
The Sustainable Schools case study describes how the principles of Education for Sustainability have been accepted into the New South Wales Sustainable Schools Program which invites all schools both government and non-government to participate.

Your Contribution to Education for Sustainability
The initiatives detailed in the selected case studies are intended be a stimulus and guide for others who also wish to increase the impacts that education can have on achieving sustainability in their own workplaces and communities. We encourage you to use the framework to develop a case study of your own program. Please send in your documented case study based on this framework to dtilbury@gse.mq.edu.au as we hope to make available more examples on the website in the future.
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**Nature Conservation Council for NSW**
The Nature Conservation Council of NSW is the State's peak environmental organisation. NCC works closely with local communities and businesses, coordinates action groups across the state and advises the key decision-makers at a local, state, and national level to protect and promote the NSW environment. NCC is a non-profit, community organisation which assists people who care about the environment to have their views heard by decision-makers of our society. For further information please visit: http://nccnsw.org.au/
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Many environmental educators and experienced practitioners have guided the authors through the development of this resource and provided peer review. The documentation was guided and supported by a group of Critical Friends, composed of people involved with the history of events that culminated in this resource and who have training and practical experience in Education for Sustainability. Critical Friends included:

- **Angela Baker** OE-ILT Professional Development Program participant. Angela works at the Nature Conservation Council (NCC) as an Education Coordinator.
- **Felicity Calvert** OE-ILT Professional Development Program facilitator and mentor. Presently, Felicity works as a supporting staff member for Clover Moore, Lord Mayor of Sydney and an Independent Member for Bligh.
- **Dan Garlick** OE-ILT Professional Development Program facilitator and mentor. Dan is now the Coordinator for Westemport Greenhouse Alliance in Victoria, and is collaboratively building a framework for local stakeholders to work together on greenhouse gas abatement projects.
- **Kate Henderson** OE-ILT Professional Development Program facilitator and mentor. Kate currently works for the Department of Sustainability and Environment as a Community Engagement Facilitator in Victoria.
- **Lisette Marchant** OE-ILT Professional Development Program external evaluator of workshops and outcomes.
- **Katie Ross** Katie graduated from Macquarie University in 2004 with a Masters in Conservation Biology and an emphasis in Education for Sustainability. Katie is co-author of this resource.
- **Syd Smith** OE-ILT Professional Development Program participant. Syd is the principal author of the Sustainable School case study. He has worked in the DET for many years, most recently playing a key role in the development of the NSW Sustainable Schools program. He is presently a member of the National Executive and Treasurer of the Australian Association for Environmental Education.
- **Daniella Tilbury** OE-ILT Professional Development Program Director. At the time, she was AAEE NSW Chair (2000-2004) as well as the convener of the Macquarie University Masters of Sustainable Development. She designed and developed GSE 827 Education for Sustainable Development - the course which was adapted for the OE-ILT Professional Development Program. Daniella is co-author of this resource.

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<tr>
<td>AAEE</td>
<td>Australian Association for Environmental Education</td>
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<td>ARIES</td>
<td>Australian Research Institute in Education for Sustainability</td>
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<tr>
<td>CEE</td>
<td>NSW Council on Environmental Education</td>
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<tr>
<td>DEC</td>
<td>NSW Department of Environment and Conservation</td>
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<td>DEH</td>
<td>Australian Government Department of the Environment and Heritage</td>
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<td>DET</td>
<td>NSW Department of Education and Training</td>
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<td>EfS</td>
<td>Education for Sustainability</td>
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<td>EE</td>
<td>Environmental Education</td>
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<td>MU</td>
<td>Macquarie University</td>
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<td>NCC</td>
<td>Nature Conservation Council of New South Wales</td>
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<td>NGO</td>
<td>Non-governmental organization</td>
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<td>OE-ILT PDP</td>
<td>‘Our Environment – It’s a Living Thing’ Education for Sustainability Professional Development Program</td>
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This resource, *Living Change*, highlights innovative NSW programs that are taking the brave steps towards Education for Sustainability (EfS). The initiatives described are intended be a stimulus and guide for others who also wish to increase the impact that education can have on achieving sustainability in their own workplaces and communities.

Many current texts explain the ‘what’ and the ‘why’ of EfS but few texts capture the intricacies of ‘how’ to bring EfS into practice. *Living Change* attempts to fill this gap by capturing the experiences of educators who are making changes to their programs orienting them towards EfS. At times, implementing EfS can run into unexpected challenges, and therefore *Living Change* also details the helpful actions used by practitioners to successfully and effectively take their plan from paper and put it into practice.

Through documenting experiences, this resource aims to:

- encourage and support the use of education as a tool for change towards sustainability; and,

- effect change towards sustainability at the community, government, corporate, and education sector throughout NSW.

To set the backdrop for this resource, this introductory section will explain:

(a) The context of *Living Change*

This section outlines the inspiration for this resource and explains how the case studies in *Living Change* were chosen according to an EfS framework developed by the Project Team. The section sets this initiative within the context of the UN Decade of Education for Sustainable Development (2005-2014).

(b) The concepts underpinning *Living Change*

This section addresses questions such as: ‘what is sustainability?’; ‘what is EfS?’; ‘how can change towards EfS occur?’

Sustainability is an extremely broad concept that leaves much room for interpretation and this section attempts to grapple with this concept. It also delves into the world of EfS offering a basis for understanding its contribution to sustainability as well as framework which assists in assessing and documenting case studies.

Two case study examples are provided as part of this resource, which are based on the framework and available for download at http://www.aries.mq.edu.au and http://www.nccnsw.org.au
In 2002, the *Our Environment – It’s a Living Thing* (OE-ILT) Professional Development Program was offered to practitioners around NSW to assist educators who are developing community education programs or adapting existing programs to address issues of sustainable living.²

A partnership was formed between Macquarie University (MU), Australian Association for Environmental Education (AAEE), and the Nature Conservation Council of NSW (NCC) who submitted a bid to the NSW Department of Environment and Conservation (DEC) to undertake this professional development program. The successful bid resulted in the adaptation of an existing MU course which was offered in four locations across NSW: Coffs Harbour; Hornsby; Penrith and Sutherland³.

Participants came from local and state government, NGO, formal education, private and corporate sectors⁴. The program, consisting of a workshop and optional mentoring component, offered participants the opportunity to clarify and deepen their conceptual understanding of how education can lead to change towards sustainability and how Education for Sustainability (EfS) can deliver outcomes in their own workplace and communities⁵.

The OE-ILT Professional Development Program aimed to:

- increase the capacity of NSW educators to develop and deliver EfS through community education initiatives; and
- increase the community’s knowledge, motivation, and ability to engage with sustainability in NSW⁶.

**Quick Glance**

**Our Environment - It’s a Living Thing Professional Development Program**

**Stage one**

4 x 4 day intensive workshop

Involved over 135 participants

- Hornsby (April 2003)
- Penrith (April/May 2003)
- Sutherland (May 2003)
- Coffs Harbour (June 2003)

**Stage two**

Tailored mentoring component

Involved a 20 participants

Together, mentor and participant decided on a mentoring focus and the anticipated outcomes of including EfS components.

**Building the capacity of practitioners... What happened at the OE-ILT Professional Development Program?**

This professional development program recognised the key role education plays as a tool for initiating and facilitating change towards sustainability. The program design and management provided a depth and range of opportunities necessary for people to reflect upon their experience, learn from others, as well as plan and take action to improve their practice.

**Knowledge from engagement – The 4 Day intensive workshops**

In the highly interactive workshops, participants were stimulated and encouraged to challenge themselves. They began the first day by considering the often abstract concept of sustainability through engaging in a future’s thinking exercise. After having personal time to envision their own idea of a sustainable future, the participants were paired up to discuss their visions with others. This allowed them to discover just how widely the visions among the group varied⁷. Questioning the reasons behind the variations encouraged participants to think about how their
own perspectives and assumptions about sustainability are formed and influenced by past life experiences and values.

After participants shared their visions, they began to delve into the concept of EfS. Collectively, they tried to imagine how education as a process of change towards sustainability could influence their engagement with sustainability. Participants were encouraged to reflect on how EfS differs from environmental education. Because of the limited number of documented EfS case studies in NSW and Australia, the participants were exposed to a number of international case studies to identify some key components of EfS. They also investigated a number of motivational tools for actively involving people in sustainability. After learning how to use the tools, the participants identified how their own existing work programs could be reoriented towards EfS.

The path to sustainability lies in asking the right questions…

The challenging questions put forth to the OE-ILT Professional Development Program participants allowed them to clarify their own thoughts on sustainability and EfS. Instead of listening to formal lectures, participants generated their own relevant knowledge through group dialogue. The discussions were an exercise for the mind, allowing people to explore and vocalize thoughts. Significantly, the enthusiasm for the questions led to chats continuing into the hallways during the tea breaks.

Just imagine the discussions generated on the first day of the workshops…

• What is sustainability?
• Why is a future’s perspective important to improving quality of life and addressing sustainability issues?
• How do you plan and facilitate an envisioning process?
• How do you use envisioning as a tool for clarifying values, critical thinking and identification of sustainability issues?
• What outcomes can we expect from the envisioning process?
• What are the main issues concerning sustainability?
• What are the key themes and principles of sustainability?
• How does sustainability challenge the way we think about and interact with the environment?
• What does it mean for us who wish to engage people in change for sustainable living?

Knowledge through application – Tailored mentoring program

Upon completion of the workshops, participants had the opportunity to be mentored at work and in their community context. Mentoring as a tool is aligned with the concept and practice of EfS. The basis of mentoring is to assist participants, based on their individual needs, while they evaluate, reflect, and act to achieve their goals. Importantly, the mentor is not seen as an expert but as a supporter.
The mentoring component of the OE-ILT Professional Development Program committed participants to applying their newly enhanced conceptual knowledge of EfS in their place of work and community. The mentoring process involved several key elements:

• Practitioners critically examined possibilities for change towards EfS with the support of a mentor, which was offered through (workplace) visits, focus groups, and online dialogue.

• The practitioners defined a change action or outcome for a specific program or workplace. Together with the mentor, the practitioner developed a road map, or an action plan to achieve this goal.

• A reflection-on-action process was used to support the practitioner in applying concepts to practice. This process of reflecting upon one’s experiences and planned actions led to a better understanding and improved versions of the programs or process.

• As programs became more aligned with EfS, commitment and understanding of sustainability within workplaces increased, community relationships improved, and environmental and sustainability actions improved.

The mentoring process developed a sense of trust between the mentors and mentorees, as well as a professional relationship among peers who came together at the focus group meetings. The collective learning which resulted from the focus groups fostered positive bonds with peers. It led to some mentoring groups committing to meet beyond the project lifespan in order to continue their professional sharing and exchange in EfS.

Snapshot of mentoring application and outcomes…

I. Community Bushfire Education Project (CBEP)

The Community Bushfire Education Project is an extension of the NCC’s Bushfire Program, which was designed to promote sustainable bushfire management throughout NSW. Both the project officer and manager of the Community Bushfire Education Project were participants at the OE-ILT Professional Development Program. Avenues for including several EfS components in the Community Bushfire Education Project were created through the mentoring process.

EfS components included:

• Participation and ownership
• Values clarification and critical thinking
• Capacity building
• Evaluation
Examples of how these components were included:

• Involvement of a variety of stakeholders in planning and delivering of events, especially agenda as well as broader bushfire and land management projects
• Participatory approach to education
• Group and individual reflection on values, and discussions that uncover the rationale and reasons for them
• Critically analyze and enthusiastic deconstruct arguments to recognize relevance in being open minded and to develop understanding for other views
• Encouragement of discussion and networking during events
• Use of participant satisfaction surveys, debriefing, and evaluation

2. Landcare in the Southern Tablelands

With the support of a mentor, the Southern Tablelands Landcare Coordinator organised a large workshop to allow Landcare members in the same area to meet and learn about the activities others are undertaking, and also to discuss and explore:

• what each participant sees as a sustainable future for their area;
• why they are involved in Landcare;
• the role of Landcare and possible future directions in their area;
• opportunities they have and barriers they face; and
• how to move forward from here.

Those involved in the workshop were able to collate the ideas and reflect upon the issues to collectively determine what actions to take next.

Cathy Crawford, the Southern Tablelands Landcare Coordinator, reflects on her mentoring experience…

‘I wanted to know how to bring the onus back to the participants, to get their feedback and their ideas. My mentor and I wanted to stimulate critical thinking in the process and help the participants see where their beliefs came from. We were also discussing ideas of how to get them to become more involved and have a better ownership over the whole process…After looking over the evaluations of the workshop, I could see that the participants really found value in taking 10 minutes to think about why they were there, why there were involved, and what drives them, but also looking at, in a broader sense, why they were involved in the environment.’

Cathy Crawford: Southern Tablelands Landcare Coordinator (2005)
Reflecting on what was achieved...

To evaluate the mechanics, design and impact of the OE-ILT Professional Development Program, the project delivery team went through a process of identifying their reflections and lessons learnt one month after the project finished. Some of the important lessons learnt were:

- There is a need to further support participants in facilitating change towards sustainability to sustain the impact of the program.
- Partnerships are integral to EfS, and successful partnerships require trust, open and ongoing dialogue, defined roles and transparency and accountability to maximize program impact, with attention to issues of equity.
- Resources should be provided to assess the longer term impact of this professional development program.

An external evaluator also conducted summative and formative evaluations using pre and post workshop questionnaires, and a three month catch-up questionnaire. Through the external evaluation, many impacts of the program were documented including:

- participants making changes or planning to make changes in their programs to incorporate elements of EfS,
- an expanded knowledge and understanding of EfS; and,
- a greater understanding of how to evaluate their programs.

Two main success factors were found to be critical in accomplishing the program objectives:

- The first was ‘the discovery by the participants of a structure for EfS.’ This empowered the participants to define and apply sustainability within their own context and thus provided one of the most motivational factors for each participant.
- The second valuable element was the opportunity for participants to gather with others in similar situations to reflect upon and discuss their own context and understanding of education and sustainability.

The summative evaluation also highlighted participants’ desire for documentation and inclusion of Australian EfS case studies into the program. This response provided the motivation to develop Living Change. This resource attempts to addresses the needs of practitioners by documenting the experiences and lessons learnt by those who have begun to incorporate EfS into their programs. The stories documented here present the creativity and innovation that can be used in aligning programs towards EfS, and pay tribute to the ever – increasing momentum of people using education as a means for change towards sustainability.

Continuing support after the program

Many participants involved in the OE-ILT Professional Development Program felt a need for ongoing peer support in EfS. This lead to the creation of support structures, in the form of:

- email network - ‘Sustainability Educators’ which is still very active and engaged in matters of EfS
- the establishment of an EfS Strategies Group
- peer support meetings focused on EfS
Selecting Case Studies

Living Change aims to provide a framework for practitioners to document their own case studies. To demonstrate how this can be done two example case studies have been developed which have been based on the framework.

The two case studies chosen for Living Change represent good practice in EfS around NSW. After reading these case studies it is hoped that practitioners will be better able to document their own experiences so that others can learn and build on their achievements.

Case studies documented in Living Change

<table>
<thead>
<tr>
<th>Provider/sector</th>
<th>Cool Communities</th>
<th>Sustainable Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Provider/sector</strong></td>
<td>Local and Australian Government, NSW NGO (AGO, NCC NSW, Leichhardt Council)</td>
<td>NSW and Australian Government (DET, DEC, DEH)</td>
</tr>
<tr>
<td><strong>Issue</strong></td>
<td>Global warming and greenhouse gas abatement</td>
<td>Whole school approach to Sustainability - curriculum, management and professional development</td>
</tr>
<tr>
<td><strong>Sector</strong></td>
<td>Community</td>
<td>School</td>
</tr>
<tr>
<td><strong>Target Audience</strong></td>
<td>Individual householders through previously established groups</td>
<td>Teachers, students and broader community</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>State-wide</td>
<td>State-wide</td>
</tr>
<tr>
<td><strong>EfS components</strong></td>
<td>Critical thinking Partnerships Participation</td>
<td>Systemic thinking Futures thinking Values clarification Partnerships Participation</td>
</tr>
<tr>
<td><strong>Other EfS critical factors</strong></td>
<td>Empowerment Embedded change Dialogue Relevance</td>
<td>Collaborative and cooperative vision Embedded change Capacity building</td>
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This resource attempts to support the many initiatives in Australia and abroad that seek to further sustainability and the role education plays in that journey.

**Statewide:**
- The outcomes of the NSW Council on Environmental Education's 2004 Environmental Education Research Conference, by improving the links between theory and research with practice\(^{17}\).
- The objectives identified in the AAEE Executive NSW Strategic Plan 2002-2004, by fostering education for a sustainable future\(^{18}\).
- The aims of the NSW Government's Environmental Education Plan Learning for Sustainability\(^{19}\), through building knowledge of EfS and assisting the people of NSW to move towards a more sustainable society.

**Nationwide:**
- The Australian Government's National Action Plan, *Environmental Education for a Sustainable Future*\(^{20}\). This national plan encourages an approach to education which develops skills, knowledge, and values that promote a sustainable future, not just within formal school settings, but in a wide range of non-formal education settings.

**Worldwide:**
- The UN Decade of Education for Sustainable Development (2005-2014) which aims to raise the profile of this process as well as provide further opportunities for people from all sectors to learn and participate in change for sustainability\(^{21}\). During the Decade, the UN hopes to improve the quality of education through setting high standards in EfS to and to recognize the importance of sustainability and the UN Key Action Themes through reorienting education goals\(^{22}\). This reorientation and transformation is seen by the UN as one of the world's greatest priorities.

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**The UN Decade of Education for Sustainable Development (2005-2014)**

The five objectives of the Decade are to:

1. Give an enhanced profile to the central role of education and learning in the common pursuit of sustainable development;
2. Facilitate the links and networking, exchange and interaction among stakeholders in Education for Sustainable Development;
3. Provide a space and opportunity for refining and promoting the vision of, and transition to sustainable development – through all forms of learning and public awareness;
4. Foster increased quality of teaching and learning in Education for Sustainable Development;
5. Develop strategies at every level to strengthen capacity in Education for Sustainable Development.

**Shaefler (2004, p. viii)***

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Erina Murphy: Sustainability Educator; NSW (2005)
Sustainability Issues:
Key Action Themes for the UN Decade on Education for Sustainable Development

Sustainability themes include many societal issues whose relationships are closely interwoven. During the 2005-2014 UN Decade of Education for Sustainable Development, the UN and its member-states plan to address many sustainability issues, including:

- Overcoming poverty
- Gender Equality
- Health Promotion
- HIV/AIDS
- Environment
- Water
- Rural Transformation
- Sustainable Consumption
- Sustainable Tourism
- Human Rights
- Intercultural Understanding
- Cultural Diversity
- Indigenous knowledge
- Media and Information & Communication Technology (ICT)
- Peace and Human Security
- Governance
- Climate Change
- Biodiversity
- Disaster Reduction
- Sustainable Urbanization
- Corporate Responsibility
- Market Economy

UNESCO (2005)

Since sustainability was first conceptualized, there has been much discussion on what sustainability really means. While it is an evolving concept, sustainability involves striving for ecological sustainability as well as an improving quality of life for present and future generations and it has notions of social justice, healthy economies thriving societies.

Importantly, sustainability involves accepting and appreciating today the role we have in defining our future.

In fifty years, what type of world do we want to live in?
How do you think the quality of life could be improved?
How could this be achieved through change?

Imagine the variety of answers these questions could generate from the people in your community and then from around the world. For sustainability to be achieved, we need to provide the space and tools for people to reflect on what sustainability means to them. Through change and compromise from entrenched positions, these different visions of sustainability can work together towards a positive future.

Achieving sustainability involves individuals and groups, governments and the global community in:

- Recognising ways in which sustainability issues are connected and how change in one effects change in others. The links between these ideals are not always apparent, although they are closely interwoven and related.

- Critically looking at the processes in our societies and what in our society perpetuates unsustainability issues. This includes understanding how society influences the choices we make in our lives and how our choices impact on sustainability.

- As a result of looking at these situations with a new lens, we need to use this insight to rethink and reorient practice to better achieve sustainability.

No doubt, it is a challenge to define and achieve sustainability when it means different things to different people and sectors, but Education for Sustainability (EfS) offers the skills and thought processes necessary to meet the challenge.
If sustainability strives for…

…creating and changing societies, so they are harmoniously integrated with the natural world and increasing the quality of life for our generation and indefinite future generations…

….then Education for Sustainability (EfS) is…

a process that uses education to equip people with the skills necessary to be leaders and engagers in the change process towards sustainability. 30

To achieve this end, learning processes need to be created that encourage active participation and opportunities for decision making for learners, and build motivation and capacity to take action for sustainability 31.

The concept of EfS was crystallized in the late 1980’s when world leaders agreed that sustainable development should be actively pursued as a global goal, and that education is an important tool in achieving sustainability 33. The importance of education in realizing sustainability was reaffirmed at the Earth Summit in Rio de Janeiro during 1992 33, as well as at the World Summit for Sustainable Development (WSSD) in Johannesburg, South Africa, in September 2002 34.

The 1992 Earth Summit and the 2002 World Summit helped to define EfS is a life-long cycle of learning, action, and reflection involving all citizens. This cycle is kept in motion by continuing to ask ‘what’ and ‘how’ 35.

In EfS, there is less emphasis on awareness-raising and more concern with changing mental models, lifestyles, and power structures in society to lead us to sustainable development 36. In order to challenge the processes that lead us away from sustainability, we need to reflect and learn from our experiences and question our current predispositions, and creatively examine how to change our current orientation and practice.
EfS is not a set of ideas educators can tack onto existing thinking and practice to allow them to say ‘we are doing sustainability.’ At simple levels of implementation, there may be elements of such overlay, but it requires fundamental reorienting of much present thinking.’

Sterling (1996, p. 19)

‘A school, regarded as a school, does not become ‘green’ by conserving energy, collecting batteries or sorting waste. The crucial factor must be what the students learn from participating in such activities.’

Schnack (1996, p.1)

How can change occur? ~ Reorientation of Programs

Education for Sustainability (EfS) processes can be developed in all types of education settings, including formal, informal, and non-formal. Formal educational settings include schools, universities, and other training institutions. However, education can occur through non-formal processes such as experiential learning, recreation, and community participation activities. Informal education is learning associated with information and experiences that we come across in everyday life – and includes reflecting upon what we read in the media, and come to understand through talking with friends over a cup of coffee.

To help participants knowledgeably engage in sustainability, EfS calls for a reorientation of education in terms of

• the content of learning, and
• the style of the learning process.

Therefore, aligning with EfS involves making changes in what the project focus is, and also how the participants are engaged in learning.

What do Education for Sustainability participants learn?

When incorporating EfS content into programs (situations, activities, processes and actions) educators must ask themselves, have I created opportunities for participants to:

• recognise, appreciate, and reflect upon individual and group definitions of sustainability and quality of life;

• envision and reflect on what participants want individually and as a group for a more positive future;

• actively work together to create possible ways of achieving their vision and changing towards sustainability using their personal, local, collective knowledge of the issues;

• explore how their actions and values of today relate to the future of the environment, their neighbors and other countries;

• question how their assumptions are affected by their personal, professional and cultural experiences;

• examine structures in society that impede change, and questioning dominant social and structural institutions, especially the capitalistic, consumer culture;

• develop an awareness of how political processes work and creating knowledge on how to influence the political process towards sustainability and equity;

• explore the change process, by looking at the local history and the current situations, which provides insight into the dynamics in the sustainability issues;

• explore how partnerships build a sense of community and global solidarity and then asking what type of integrative partnerships would be of benefit to them along the journey to achieving sustainability, and why; and

• discover avenues for long-term and broad-based participation in policy formulation, decision-making, and implementation?
Community Education Manager, Janelle Hatherly, and Outreach Educator and Horticulturalist, Stephen Paul from Community Greening, a partnership community outreach education project between Botanic Gardens Trust and NSW Department of Housing, reflect on engaging participants for change:

With participatory education, you help participants find their ideas and help them see those ideas through. So it’s working from their frame of reference, giving them real skills and real knowledge. For example, when participants get land to build a communal garden and go through that process, they realize how to interact with government, they learn not to ‘stay out of sight out of mind,’ they learn about water conservation to keep their gardens alive ~ the many processes they go through relate real skills to real issues, which then changes attitudes, and then changes their actions.

Janelle Hatherly, Botanic Gardens Trust (2005)

We don’t go out there and tell them where the best place is to put the garden or what the best plants are to grow. The learning part of this process involves them making the decisions... and when we go and visit all of these different groups, we end up tailoring the education, because what works for one group may not work for the other. And what ever you are doing with the groups, you have to do it at their pace and at their level, and you have to be flexible enough to do that.

Stephen Paul, NSW Department of Housing (2005)

What learning processes does Education for Sustainability value?

The learning processes that most effectively help participants become motivated and equipped to engage in sustainability, and achieve long-term sustainability outcomes are active learning approaches that are process oriented.

When creating and implementing these learning-by-doing processes, helpful questions to critically think about may include ~

How can I, as an educator:

• Engage rather than inform participants in the education program so they become confident, knowledgeable, and skilled to endeavor for sustainability?

• Ensure a learner-centered approach, guided by facilitators (rather than led by experts or teachers) and acknowledge that participants hold the true insight into how best to move their community or organizations towards sustainability? EfS challenges its participants to take control of their learning experience and direct it in a way that is most relevant for them.

• Create situations for participants to become involved in making decisions, not only during the facilitator-led education process, but also outside of the education program?

• Create a socially critical working knowledge among participants, through probing, dialogue and discussion? This knowledge should grow and evolve with the perspectives and views that each participant has brought to the program, enabling learning through the process of sharing and applicability through integrating the knowledge in day to day personal and professional life.

• Use democratic processes, where participants are given the opportunity to share their thoughts and opinions? Sharing thoughts and building ideas requires a focus on group work situations, and so the program setting needs to be equal and engaging to foster participation of everyone there. Team work, achieved through being community and solidarity focused, will reach sustainability much more effectively than acting individually.

• Value creating questions more than finding answers and encourage participants to keep pushing each other and themselves to ask ‘what’ and ‘how’? The more questions that are generated through discussions, the more the participants experience the need to learn, and questions show whether or not the participants are really getting to the heart of the sustainability issue. Solutions to sustainability issues can not be found in simple cause and effect answers and are often multi-faceted. Engagement and questions act as the participants’ shovels, axes, magnifying glasses and telescopes to dig deeper and deeper into the issues.
To successfully and effectively reach sustainability goals, certain components can be incorporated into the design process of the education program and the education program itself. The following components create education processes that inspire, motivate, and prepare participants to continue engaging in change towards sustainability.

Envisioning helps focus the program on the future and work towards more equitable and sustainable opportunities. With the very busy schedules that our lifestyles demand today, creating the time to envision is a luxury that people do not usually allow themselves. Also, people often feel disempowered and unmotivated to think about the future by the negative images and doomsday projections they are exposed to daily. Many current educational practices focus on problem-solving their way out of unsustainable development rather than on creating other futures. As an alternative, envisioning tools such as facilitated workshops, drawings, mapping, reflection and dialogue create a positive, proactive approach to sustainability.

When planning envisioning and futures thinking activities educators might ask the questions:

How can I as an educator:

• Provide participants with the time to creatively picture what a high quality of life means to them and what they hope their communities will be like in the future?

• Allow participants to not only highlight dreams of ‘where to next,’ but also to understand how their actions today contribute to or detract from their vision?

• Create a learning dialogue among the individuals, which allows participants to understand and respect other perspectives? This is a process that is inclusive to all cultures and can act as a bridge to incorporate intercultural and indigenous perspectives and knowledge.

• Allow people to focus on the common goals for the future and then devise an action plan for sustainability by looking forward, not backwards?

• Offer direction and energy, and provide impetus for action by harnessing deep aspirations to motivate what people choose to do in the present? This fosters hope in engaging for change, as well relevance, and responsibility for working towards their vision of a sustainable future.

• Emphasise that participants are owners of their visions, process, and outcomes to encourage them to participate in social innovation, recovery, and renewal?

• Help participants see the process of change as a series of steps?

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Futures Education as core theme for reorienting education towards sustainability

If it is true that all education is for the future then the future needs to become a more explicit element in all levels of education. As education for sustainable development is education for a future that we cannot yet predict, it is important that education programmes seek to develop skills for understanding and anticipating change and for facing the future with courage and hope. This would involve coming to realise that the future is a human creation, made by our decisions, and that in a democratic society, people have the right, indeed an obligation, to contribute positively to a sustainable future. This would involved learning how to learn, how to analyse and solve complex problems, how to think creatively and critically about the future, how to anticipate and make our own histories. These contribute to the skill of foresight and are all aspects of a futures orientation in education.

UNESCO (2002, p.20)
Values clarification and cultural thinking

Values are certain beliefs, attitudes, or convictions that are reflected in decisions and actions and are passed along through cultural processes. People use values to judge the worth of ideas or actions, whether the ideas or actions are good or bad, right or wrong. Outside influences such as media, family, friends, gender, and ethnicity all can influence personal and collective values.

When values clarification is brought into an education program, it involves providing participants with strategically open-ended questions to assist them in thinking about what they value and why they value those qualities or things. This process uncovers the highly personal and complex ways people build knowledge through interactions of various cultural factors.

When planning values clarification and cultural thinking, questions to explore might include:

How can I as an educator:

- Explore how their values may be influenced by outside, cultural and societal factors? In a sense, values clarification allows the participants to become aware of the lens through which they interpret their surrounding world. This process helps develop the ability within individuals to understand how background, culture, and values interact to shape their knowledge and perceptions of the world.
- Question what they would value if those outside influences were not there? This allows participants to make a conscious clarification on what is truly important to them. This clarification creates a deeper understanding of their personal worldview and the cultural processes that shape their worldview.
- Think culturally? Discussions generated among people with different values can create understanding on how other cultures have different lenses or worldviews through which they interpret the world. This process of deconstructing their own worldview and socialized views helps people comprehend that others see the world in similarly complex ways.
- Work towards sustainability with a firmer understanding of how they interpret the world? After exploring the relationship between values and behavior affecting the achievement of sustainable futures, people can be empowered to think and act in genuinely rational and self-directed ways that work towards a sustainable future decided in relation to their cultural traditions and values.

‘A key aspect of citizenship education within the context of sustainable development is international understanding. This helps bring an understanding of the links between local and global issues. It also means that people can be given opportunities to examine their own cultural values and beliefs, to appreciate the similarities between peoples everywhere, to understand the global contexts of their lives, and to develop skills that will enable them to combat prejudice and discrimination.’

UNESCO (2002, p. 21)

‘Education must deal with values and views. Clarifying and classifying these teaches people to think ahead and plan their future, and to carefully consider the implications as well as the consequences of their behavior on themselves and others.’

Participation in the EfS context places learners at the center of an active experience, putting learning, decision making, and action in the hands of the learners themselves. The educator sheds their status as an “expert” and becomes a listener and facilitator dedicated to helping participants solve their own problems. Participation increases self organization, self reliance, and community identity, which are important for the participants to continue in actions for sustainability. In EfS, participation goes beyond including people in single action activities, but rather EfS makes long-term participation for change a goal in itself by building the capacity of learners to participate in decision making towards change.

When planning the different avenues for participation in a program, questions to explore might include:

How can I as an educator:

- **Equitably** involve all relevant people through decision-making during the stages of the program, including conception of the program, planning, implementation, and management of the learning process, as well as monitoring and evaluating the project, to ensure ownership of decision and outcomes?

- **Include** the participants from the beginning of the education process so they can plan the program to encourage community ownership and management of the learning and actions for sustainability?

- Help to take the learning process of the program beyond reflection and towards capacity building, which builds the knowledge and skills for participants to act in their community as leaders or agents for creating change?

- Encourage **key multipliers** as a result of their experiences from the learning process? Key multipliers are those who take what they have learned and diffuse the process further into the community by reaching out to a greater number of stakeholders. Because the key multipliers have become empowered through gaining new skills, they have become effective agents for creating change.

- Help recognise the rights of all groups to participate, particularly minorities, women, and youth?
Partnerships

Building the capacity of participants to effectively work for change includes helping them see the importance of partnerships and what a meaningful partnership truly includes. These relationships range from local to international and can form between groups, organizations, projects, governments, and networks. Regardless of their type, they help create synergy between groups, pool resources, break hierarchies, build shared visions, and motivate action for change towards sustainability. To increase participants’ ability to form partnerships, they might need help in understanding who to partner with and why, how to go about it, and how to make the partnership meaningful.

When planning partnerships in a program, questions to explore might include:

How can I as an educator:

• Include a wide range of government and community stakeholders in order to embed the change in the wider community and sustain the achievements?

• Develop an understanding by the participants of how sustainability issues are all very connected and can be very political?

• Provide opportunities for inequalities in the program to be changed?

• Spread benefits of the program across all partner organisations?

• Add value to local initiatives while maintaining local relevance?

• Increase capacities to attract financial and technical support?

Critical thinking and reflection

Critical thinking helps to identify the root causes of problems, instead of just their symptoms. Dialogue centered around critical thinking is extremely valuable in not only in increasing participation, but also in helping to encourage participants to consider other explanations or factors in the situations they are discussing. Critical thinking gives us the ability to understand complex problems, to make choices, and to participate in change, both individually and collectively, in such things as social and community movements and to develop a sense of our own power to shape our own lives.

When bringing critical thinking into a program, questions to explore might include:
One of the central platforms to critical thinking is that the world cannot be changed rationally unless it is interpreted adequately.

Huckle (2004, p. 33)

How can I, as an educator, help participants to:

- Understand the actions they undertake will allow them to create their desired future?
- Explore the interests behind power and politics in their local communities, including the power relationships in their communities, schools, workplaces, and the wider world, and their effect on sustainability?
- Question why certain processes in the community are carried out as they are?
- Probe how is change in the situation impeded or how can change be fostered?
- Examine the biases and motivations for action behind institutions, governments, media, companies, and the people around us?

Critical reflection involves learning from the questions and answers generated during the critical thinking process. After participants have exhausted the ‘why’, they begin asking ‘so what’. They look at how they can use this learner generated knowledge from critical thinking to effectively engage in sustainability. Critical thinking and reflection can also assist with the evaluation of the effectiveness of programs.

Often simple solutions in one area of society are made before fully understanding how that decision may adversely affect other areas. Systemic thinking, however, encourages participants to look at sustainability issues and society in holistic ways in terms of how change in one affects the other. It recognizes that simple problem-solution approaches often lead to an incomplete and imbalanced approach to thinking about the world, particularly with the increasing complexity of today’s sustainability issues.

When incorporating systemic thinking into a program, questions to explore might include ~

How can I, as an educator, help participants to:

- Allow the intricate web of relationships between issues to be addressed, in order to foster creating a long-term, embedded change rather than a short-term ‘band-aid’ fix?
- Help participants Shift the focus and attention from ‘things’ to processes, from static states to dynamics, and from ‘parts’ to ‘wholes’?
- Recognise the interrelationships and complexities of the systems that are operating in the world today and helps us look at multiple influences and relationships when we explore and resolve problems?
- Promote a new way of holistic thinking rather than the usual way of taking things apart?
- Participate in interdisciplinary approaches to problem solving?

Systemic thinking

Whilst critical thinking is concerned with ideology, power, and justice, systemic thinking is concerned with assumptions, pattern and relationship. Systemic thinking can instill a sense of appreciation, humility, and empathy – a recognition that sustainability issues often require a shift from a culture of control to one of participation and cooperative working.

Sterling (2004, p. 84)
### Summary of Critical factors of EfS

<table>
<thead>
<tr>
<th>Principle or component of EfS</th>
<th>Critical to effective EfS because:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Futures oriented</td>
<td>Motivates people to achieve the vision of the future.</td>
</tr>
<tr>
<td>Values Clarification</td>
<td>Helps people understand their worldview and why they value what they do and how they make decisions.</td>
</tr>
<tr>
<td>Critical and cultural thinking</td>
<td>Explores the power relationships in communities, schools, or workplaces and questions the motivations, interests of stakeholders.</td>
</tr>
<tr>
<td>Partnerships</td>
<td>Sustain the impact of change and spread the learning across the partnerships.</td>
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<tr>
<td>Participation in planning</td>
<td>Creates ownership of the vision and actions required for sustainability.</td>
</tr>
<tr>
<td>Participation in learning</td>
<td>Builds capacity; allows learners to drive their own learning process so that it is relevant and applicable to their needs.</td>
</tr>
<tr>
<td>Systemic thinking</td>
<td>Promotes integrated thinking and decision making; enables us to understand the complexity behind sustainability and enables change to be embedded.</td>
</tr>
<tr>
<td>Relevance</td>
<td>Allows people to see how sustainability relates to their everyday lives and actions, and therefore motivates them to contribute to change.</td>
</tr>
<tr>
<td>Capacity building</td>
<td>Management of change skills; more than pure knowledge needs to be developed to turn knowledge into action.</td>
</tr>
</tbody>
</table>

Adapted from: Cooke and Tilbury (2004)
This framework seeks to support practitioners who wish to use education as a change process for sustainability – as well as those who wish to document their experiences as case studies to share with others. The questions attempt to frame the discussion on the process of reorienting towards Education for Sustainability (EfS). The framework can be used to highlight how education can build the capacity of individuals and communities to take control of and engage in the process of bringing our societies closer to sustainability.

What are the uses of the framework?
This framework consists of critical questions relating to EfS which:

• ensured the selection of best practice in EfS in the program review process;
• provided a common structure for the presentation of the case studies; and
• may assist educators when planning, managing, and evaluating EfS components in their program.

How does the framework hope to achieve this?
The intention of this framework is to focus on the substance and quality of the education program. Using critical questions, the framework seeks to capture how the program designers or facilitators took steps towards incorporating EfS components to help other practitioners understand the process of reorienting their programs towards achieving long-term sustainability outcomes.

The framework assists us in constructing a picture of:

• The relevance of program objectives to EfS:
• How EfS components were used in the program planning process;
• How EfS components were used in the program and the tools that were beneficial to effectively include them;
• What EfS outcomes were achieved; and
• The experiences, lessons learnt, and reflections on the critical success factors.
**Framework for Documenting Good Practice in Change towards Education for Sustainability**

Putting the conceptual thinking behind Education for Sustainability (EfS) into practice can be a challenging (but rewarding) experience which is why it is necessary to develop case studies. Through a structured documentation of existing programs we are able to see what EfS pedagogy, content and components look like in action.

The following questions are intended as a guideline and therefore not all questions presented need to be answered by each program. In practice some information may be more readily available than other information or time/resource issues restrict a complete response.

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### Program background

**Documenting the program background**

- What is the background of the program?
- What, if any, was the EfS training of the person bringing EfS components or changes towards EfS components into the program? If they haven’t received training, what was their broader philosophy on educating for change?
- What role does that person play in the program? (designer/manager/facilitator)

### Program objectives

**Documenting objectives of aligning the program towards EfS**

- What were the specific objectives of using EfS components?

**Documenting evidence of good practice EfS in objectives**

- Are the objectives of the program clearly defined?
- How do the objectives aim to go beyond raising-awareness and social marketing, and aim towards action, lifestyle change, and changing mental models?
- How are the objectives future focused?
- Was systemic thinking aimed at changing the larger societal institutions, structures and processes?
- Are there any parts of the program which contradict the philosophy of EfS?

### Program planning

**Documenting the planning process to align with EfS**

- What EfS components were intended to be used?
  - 1) Envisioning, 2) values clarification/cultural thinking, 3) participation 4) partnerships, 5) critical thinking and reflection, 6) systemic thinking?
- What did the program designer understand those components to mean?
- Why were those EfS components chosen?
- What was the specific planning process used by the program designers?
- What was the action plan that resulted from the planning process?

**Documenting evidence of good practice EfS in the planning process**

- How was a collaborative design and planning process used?
- How were key stakeholders involved and what was their level of participation?
- How was futures thinking achieved? What techniques were used and how was a cooperative vision developed?
- How is the design innovative, rather than integrative?
- How is the program design flexible and adaptable to changes in situation?
- How is relevance captured through looking closely at the local circumstances of issues, power and politics?
- How is the program interdisciplinary and holistic?
- How were monitoring and reflection included? Who was in control of this process?
Program implementation

Documenting program implementation

• How did the program manager implement and foster EfS components in the program?

• What tools were valuable in implementing EfS components and achieving sustainability goals? (e.g., skills, resources, support systems, personal philosophy, other concepts, monitoring indicators, etc.)

• Did the program implementation follow the action plan, or were there challenges in bringing EfS components into practice? If so, how were the challenges dealt with?

Documenting evidence of good practice EfS in implementation process

• How were participants empowered through shared management? How did they feel ownership over the ideas and projects?

• How was the capacity of individuals to work with others to bring about structural change built?

• Were obtainable outcomes set? How was the big picture painted, yet achieved through celebrated small initial steps?

• How was time created for meaningful, and stimulating dialogue that creates knowledge from participants, builds relationships, helps participants to understand other worldviews, empowers, and addresses power imbalances?

• How were partnerships and networks fostered?

• How was commitment encouraged?

• How was trust built and maintained?

Evaluation

Documenting evaluation process

• What evaluation strategy was used?

Documenting evidence of good practice EfS in evaluation process

• How are the EfS components consistent with the desired objectives?

• What were seen as the critical success factors?

• How is the evaluation process used through all phases of the project management cycle?

• How have reflections from the evaluation process been incorporated back into the program design?

Outcomes

Documenting EfS outcomes

• What are the outcomes of incorporating EfS components? How is this different than what was previously achieved?

• Were there any changes in the policy or practice of the program’s provider?

Documenting evidence of to see if outcomes align with good practice EfS

• How has the program created effective outcomes and achievements towards sustainability, or what are the expected outcomes?

• What are the long-term impacts of the program, or the expected long-term impacts?

• How is the program self-sustaining? What are the mechanisms for long-term effective continuation?
Endnotes

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2 Tilbury et al (2004b)
3 Tilbury et al (2004b)
4 Garlick (2003)
5 Tilbury et al (2004b)
6 Macquarie University (2003a)
7 Tilbury and Wortman (2004, p 17)
8 Macquarie University (2003b)
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13 Marchant (2004, p 16)
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17 DEC (2004)
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20 Department of the Environment and Heritage (2000)
23 Prescott (2002)
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60 Cooke and Tilbury (2004, p 25)
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67 UNCED (1992)
68 IUCN (2004)
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Agenda 21
Agenda 21 is an intergovernmental agreement signed at the United Nations Conference on Environment and Development held in Rio in 1992. The 40 chapter document outlines objectives and actions that can be taken at local, national and international levels and provides a comprehensive blueprint for nations throughout the world who are starting to make the transition to sustainability. It was the first document ever to focus on current problems while considering the needs of the future, by examining the interconnectedness of social, economic and environmental issues. Chapter 36 of Agenda 21 accords special significance to the role of education as ‘the most effective means that society possesses for confronting the challenges of the future.’

Capacity building
Capacity building in EfS involves supporting people through an educational process that builds the skills needed to engage in change towards sustainability. The building of skills can mean gaining confidence and ability in thinking systemically, challenging assumptions, critically questioning situations and articulating visions of the future and definitions of locally relevant sustainability. These skills are used to bring about structural or institutional change within the mainstream society. It is about helping people to guide, direct, and empower themselves.

Change
Change is continually happening all around us. The daily decisions that we make can contribute to change in society or can reinforce the way our societies currently run. If we hope for an increased quality of life it is necessary to ask, what are the different avenues to bring about change? EfS seeks an ‘embedded change’ towards sustainability in our lifestyles, mental models, and societal structures. This change should be systemic, getting to the root causes of the problem. This change is continual, in that it keeps evolving to better achieve sustainability goals. The change is driven by people who feel empowered to engage in change and feel ownership the change process.

Community
Being part of a community is about a sense of belonging. A community provides people with support and feelings of camaraderie through a common bond, whether it is fostered through joint ownership of a place or of an issue. The common bond fosters a sense of identity and self among those who are joined. EfS values change towards sustainability at the community level, centered on their local values and knowledge.
Critical thinking
Critical thinking is about questioning the world around us and questioning how society is shaped by us, and how we are shaped by society. This is a necessary process for education for sustainability because it can be used to interpret root causes of local and global problems, challenge bias, and support rational decision making.

Education for Sustainability
Education for sustainability is about learning for change. Education for Sustainability provides hope for a positive future by encouraging people to envision where we want to be and then collectively addressing the issues and problems that exist in our society today. EfS motivates, equips and involves individuals, and social groups in reflecting on how we currently live and work, in making informed decisions, and creating ways to achieve a more sustainable world. Being more than a dissemination of knowledge, EfS seeks to develop the skills required to address sustainability, such as systemic thinking, critical thinking, and creativity.

Envisioning
Envisioning is a process that helps people to discover their possible or preferred futures. Engaging people in futures thinking helps them to find a meaningful and relevant interpretation of sustainability, and it allows them to consider more holistic ways of viewing situations and obstacles.

Key multipliers
Key multipliers are those people who help diffuse the education for sustainability program even further into the surrounding community or workplace. Through their actions, the reach of the program is extended and therefore the impact and effect of the long-term outcomes are heightened.

Participation
Participation is an important component to EfS. Participation increases people’s motivation to work towards a future that pursues a better quality of life. Participation in EfS strives for a process that includes meaningful discussion and shared decision-making. This process is important because it provides participants with a sense of ownership, empowerment, and pride over the actions and change.

Partnerships
A partnership is a commitment between people and groups to work together in order to accomplish an agreed set of objectives. Partnerships allow resources, ideas, knowledge and support to be shared. In education for sustainability it is important to realize the value in creating a sense of trust and fellowship amongst all society’s stakeholders. With true, meaningful partnerships between
government, community organisations, public, business, and industry, collaborative steps towards structural change can be realised.

**Stakeholders**

Stakeholders represent the people who are most connected to the issues which are targeted in an education for sustainability program. The stakeholders could have power in the situation, could be seen as providing an important partnership to the process or have a direct impact on the ability to achieve sustainable outcomes.

**Sustainability**

Sustainability is an evolving concept that can be imagined as a process of change which provides real improvements in the quality of human life and at the same time conserves the vitality and diversity of the Earth. It addresses such issues as food security, poverty, sustainable tourism, urban quality, women's rights, fair trade, green consumerism, ecological public health and waste management as well as those of climatic change, deforestation, land degradation, desertification, depletion of natural resources and loss of biodiversity.

The issues underlying sustainability are complex. Sustainability is open to different interpretations and takes on different meanings not only between cultures but also between different interest groups within societies. Sustainability embraces equality for all, and for this reason a key aim of sustainability is to enable multi-stakeholder groups to define their vision of sustainability and to work towards it.

**Systemic Thinking**

Systemic thinking provides an alternative to the dominant way of thinking which emphasises analysis and understanding through deconstruction. In comparison, systemic thinking offers a better way to understand and manage complex situations because it emphasises holistic, integrative approaches which take into account the relationships between system components and works toward long-term solutions critical to addressing issues of sustainability. Systemic thinking offers an innovative approach to looking at the world and the issues of sustainability in a broader, interdisciplinary and more relational way.

**Values Clarification**

Everyday we make decisions either consciously or subconsciously based on those things in life that we value. Values clarification involves exploring how our values are formed and how our values then affect our decisions. It helps us explore the influences of culture, family, society, media, and personal experiences and how these affect our values, and in turn how our values affect our thoughts and actions.
Living Change
Living Change aims to highlight innovative NSW programs that are taking brave steps towards Education for Sustainability. It is comprised of three sections:

🌿 The Framework
The framework section provides an introduction to the resource and the concepts underpinning Education for Sustainability. Based on these concepts a documentation framework is provided which can be used by practitioners to capture their experiences to inspire and educate others.

🍎 Case Study A: Cool Communities
Cool Communities is a nationwide partnership program focused on making changes in households towards greenhouse gas abatement.

🍎 Case Study B: Sustainable Schools
Sustainable Schools is a program in New South Wales which invites all schools both government and non-government to participate.

Your Contribution to Education for Sustainability
The initiatives detailed in the selected case studies are intended be a stimulus and guide for others who also wish to increase the impacts that education can have on achieving sustainability in their own workplaces and communities. You are also encouraged to use The framework to develop a case study of your own program. Please send in your documented case study based on this framework to dtilbury@gse.mq.edu.au as we hope to make available more examples on the website in the future.