

**AVETRA Conference 2011**

**Tracking the key policies on  
sustainability, VET and transition to a  
low carbon economy**

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# Introduction

- This paper reports on the early stages of research in progress.
- Funded by the Institute for Social and Environmental Sustainability at Latrobe University to research sustainability, VET and the transition to a low carbon economy.
- Governments at all levels putting in place targets, policies, infrastructure and projects to initiate more sustainable living, this paper identifies and tracks some of the key policies.
- In the international arena, the United Nations has instigated and facilitated substantial work in these fields.
- At a federal level are
  - the National VET Sector Sustainability Policy and Action Plan 2009-2012,
  - the Green Skills Agreement, and
  - The Green Skills Agreement Implementation Plan 2010-2011.
- All of these policies are calling for significant changes to be instigated.
- Jobs are changing in a number of different ways. With some jobs, modifications are occurring to accommodate a shift to more sustainable practices; this is being accompanied by the creation of new jobs in emerging industries, while less sustainable jobs stand to be eliminated. These changes to work and jobs bring skill development within VET to the fore.

# The aims of the research project

- to collect data from VET providers about changes to job roles. These are the emerging job roles that are associated with the growth in those industries directly responding to become more sustainable. Also, in the potential (in some cases, inevitable), structural adjustments for some industries, we aim to identify the vulnerable job roles – as perceived and evidenced by participants in the project. Other job roles are expected to fall in between with adjustments being made to accommodate an increasing awareness and appreciation of sustainable development.
- to review the current use and implementation strategies for nationally accredited 'sustainability' units of competency.
- analyse revision strategies where green skills and sustainability skills have been introduced into existing national training packages.
- to identify potential for further capacity building for sustainability within VET programs.
- analyse current and future opportunities for appropriate and timely professional development for VET professionals; to enhance their understandings and curriculum materials for the teaching of green skills.

# The research questions

- How are job roles changing in the transition to a low carbon economy?
- How are VET training programs changing to develop ‘skills for sustainability’?
- What is the professional development needs of VET practitioners with regard to developing ‘skills for sustainability’?

# The research methodology

- Seven TAFE colleges in six locations
- Four different groups of participants
  - VET teachers,
  - VET students,
  - VET managers and
  - employers
- Data collection through focus group interviews
  - Four or five to a group

# Some influences . . .

- *Silver spring* (Carson 1962);
- *The tradegy of the commons* (Harden 1968);
- The term 'Environmental education' emerges 1965.
- Limits to growth (Meadows et al 1972)

# International policy initiatives

- UN conference on the human environment held in Stockholm in 1972
- first major conference on international environmental concerns
- As Gough (2006:72) reports, ‘other recommendations from this conference included that environmental education be developed “as one of the most critical elements of an all out attack on the world’s environmental crisis”, (UNESCO 1975).
- A European based environmental movement is born

# International policy initiatives

- In 1983, the UN General Assembly established the World Commission on Environment and Development (WCED) which is also known by the name of its Norwegian Chairperson as the Brundtland Commission.
- *'Our common future' (1987)*
- They defined sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland 1987: 43). This UN report lays the foundations for sustainability to be considered in terms of the economic, social and environmental factors, what Elkington (1997) describes as 'the triple bottom line'.



# International policy initiatives

- *1988 UNEP formed the Intergovernmental Panel on Climate Change (IPCC). The IPCC provides a clear scientific view on the current state of knowledge on climate change.*
- Their first report on the Impact of Climate Change (FAR) was published in 1990. This was an important source document for the Earth Summit held in Rio de Janeiro, Brazil in 1992.
- The UN Framework Convention on Climate Change (UNFCCC) was formed in 1994.

# International policy initiatives

- The IPCC remained the most important source for evaluating scientific, technical and socio-economic information.
- The relationship between the UNFCCC and the IPCC became very important as a model for interaction between science and decision-makers (IPCC 2011).
- In 1995 the IPCC released their Second Report (SAR). This assessment of the existing research became the basis for the development of the Kyoto Protocols that were originally negotiated in 1997 with targets and goals for implementation by 2005. The Kyoto Protocols are aimed at reducing greenhouse gas emissions.

# International policy initiatives

- The Third Report (TAR) on the assessment of the science and knowledge of climate change was published by the IPCC in 2001.
- This release was in time for the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002.
- Three key outcomes emerged from the WSSD. These were, the Declaration on Sustainable Development, the Plan of Implementation, and Partnerships for sustainable development.
- The main thrust of the Declaration reiterates that the essential requirements for sustainable development are eradicating poverty, changing consumption and production patterns, and protecting and managing the natural resource base for economic and social development.

# International policy initiatives

- At its 57<sup>th</sup> Session, in December 2002, the United Nations General Assembly passed a resolution to begin the Decade of Education for Sustainable Development (DESD).
- In 2005, the IPCC released its Fourth Report (AR4) detailing an analysis of the science of climate change in time for the World Summit of the General Assembly of the UN held in New York. Delegates at this Summit confirmed their commitment to the Millennium Development Goals. In terms of the environment, this summit agreed to the, 'recognition of the serious challenge posed by climate change and a commitment to take action through the UN Framework Convention on Climate Change.

# International policy initiatives

In 2006 the Stern Review was released in the United Kingdom. This review examines the economics of climate change. Six points can be used to summarise the conclusions of this review.

- there is still time to avoid the worst impacts of climate change, if we take strong action now.
- climate change could have very serious impacts on growth and development.
- the costs of stabilising the climate are significant but manageable; delay would be dangerous and much more costly.
- action on climate change is required across all countries and it need not cap the aspirations for growth of rich or poor countries.
- a range of options exists to cut emissions; strong, deliberate policy action is required to motivate their take-up.
- climate change demands an international response, based on a shared understanding of long-term goals and agreement on frameworks for action.

# International policy initiatives

- In 2008 UNEP published its report *Green jobs: towards decent work in a sustainable, low carbon world*,
- this provides what is jointly described by the United Nations Environment Programme (UNEP), the International Labour Organisation (ILO), the International Organisation of Employers (IOE) and the International Trade Union Congress (ITUC) as ‘the first comprehensive report into the emergence of the ‘green economy’ and its impact of the world of work in the 21st century’.
- This report assembles evidence of existing green jobs in the key economic sectors of renewable energy, building and construction, transportation, basic industry, agriculture and forestry, providing estimates for future green employment across the world.
- The report argues that prospective employment may be effected in four different ways. Additional jobs will be created in some fields, some jobs will be substituted, others eliminated and some existing jobs will be transformed

# Some Australian parallels

- In 1992 the Australian Government outlined its commitment to sustainability and the environment with their policy documents, *National Strategy for Ecologically Sustainable Development*, and their *Intergovernmental Agreement on the Environment*. These documents articulated their thinking at that time and provided guidance to the departments across all levels of government.

# Some Australian parallels

- Fien (2001) builds on the three components of the triple bottom line and expands this when he explains that four interdependent systems provide the four pillars on which sustainability is supported.
- These are reiterated in Goldney et al, (2007:13), as the
  - biophysical systems that provide the life support systems for all life, human and non-human;
  - economic systems that provide a continuing means of livelihood (jobs and money) for people;
  - social and cultural systems that provide ways for people to live together peacefully, equitably and with respect for human rights and dignity;
  - political systems through which power is exercised fairly and democratically to make decisions about the way social and economic systems use the biophysical environment (Fien 2001).



# Some Australian parallels

- A similar review to that conducted by Stern in the UK was undertaken in Australia by the economist, Professor Ross Garnaut. His report was released in 2008 with updates released through a range of issue specific papers in 2011.
- A similar study to that of the UNEP (2008) was conducted in Australia to look at *Growing the green collar economy* by Hatfield-Dodds, Turner, Schandl and Doss (2008).
- This report concluded, it is possible to develop well designed policies to combine economic growth with a reduction of the environmental footprint overtime; rapid transition to sustainability would have little to no impact on national employment (projected increase of 2.5 – 3 million jobs in next two decades), and an increase of 10% in the next decade in sectors with high potential environmental impacts (230,000 – 340,000 new jobs in transport, construction, agriculture, manufacturing and mining).
- The Victorian based equivalent version of this work is the DIIRD (2010) report on *Jobs for the future economy: Victoria's action plan for green jobs*.

# International policies on VET and sustainability

- At the Second International Conference on Technical and Vocational Education held in Seoul, in 1999, calls were made to explore the integration of work, citizenship and sustainability. In their report they make this clear when they state, 'we have concluded that Technical and Vocational Education, as an integral component of lifelong learning, has a crucial role to play in this new era as an effective tool to realise the objectives of a culture of peace, environmentally sound sustainable development, social cohesion and international citizenship', (UNESCO 1999: 61).
- Five years later in October 2004, this was the direct focus of the International conference held in Bonn. Participants from over 100 countries committed to re-orientating Technical and Vocational Education and Training (TVET) towards, 'quality skills development that leads to economically viable, environmentally sound and sustainable communities' (The Bonn Declaration 2004).
- In 2009 the UNESCO Conference in Paris passed resolutions on 'skills for the world of work'. This was identified as one of the three priority areas for action over the next two years. As reported by NORRAG 'Special mention was made of the importance of TVET's contribution to furthering the goals of education for sustainable development, with particular reference to the reform of TVET systems and to building the capacity of Member States to take concrete, effective action to equip youth and adults with necessary knowledge, competencies and skills for the world of work'.
- An annotated bibliography of research and related literature on TVET and sustainability (1998 – 2004) is available through UNESCO & UNEVOC, while the Fien, Maclean & Park (2009) publication draws together international contributions on *Work, learning and sustainability*.

## Australian policy responses: Skill development and VET

- At the national level of policy on sustainability is the document '*Living sustainably*' (DEWHA 2009). This is the Australian government's *National Action Plan for Education for Sustainability*. The discussion around Strategy 3 in this report is focused on 'Fostering sustainability in business and industry' and has high relevance for VET provision.
- Sitting below this document is the *National VET Sector Sustainability Policy and Action Plan (2009 – 2012)* published by MCVTE (2009).
- In 2010 COAG published their *Green Skills Agreement (GSA)*.

## Australian policy responses: Skill development and VET

The GSA has four objectives, these are,

- embedding skills for sustainability practice and teaching in vocational education and training, within the requirements of the national regulatory framework
- the upskilling of VET instructors and teachers to deliver skills for sustainability
- the strategic review of Training Packages (sets of nationally endorsed standards and qualifications for recognising and assessing people's skills) to embed sustainability knowledge, skills and principles
- implementing a transition strategy to re-skill vulnerable workers.

Donavan (2010) summarised these as, the development of national standards, upskilling the VET workforce, revision of training packages, and transition strategy for vulnerable workers.

- MCTEE who have developed the *Green Skills Agreement Implementation Plan 2010 – 2011*. This plan is focused on implementation strategies

## **Australian policy responses: Skill development and VET**

- Goldney, Murphy, Fien & Kent (2007 & 2007a) provides an excellent overview of 'Sustainability and VET in Australia'. Their report '*Finding the common ground*' considers whether there is a place for sustainability education in VET, which they answered in the affirmative. This research confirmed that society was becoming more aware of environmental concerns and that education for sustainability has an ongoing and vital role to play. VET provides a means for promoting sustainability within workplaces, amongst employees and employers. They found that Training packages were a practical way of integrating sustainability into VET programs. This could be done in much the same way that generic and employability skills are included. They briefly reviewed the teaching practices within VET and found them to be compatible with the general logic of sustainability.

## Australian policy responses: Skill development and VET

- The NSW Board of VET has developed a comprehensive document on '*Skills for sustainability*' (BVET 2007 & 2009). This work provides the blueprint for sustainability and VET in NSW but has relevance to VET provision across all Australian states and territories. The content in the 28 page second edition (BVET 2009) localises the issues that are being raised in the much larger UNEP (2008) Green jobs research. The first chapter provides a focus on sustainability and the future while the second chapter focuses on sustainability, impact on the workforce, green jobs and skills.
- In 2003 Russell working for NSW TAFE undertook a review of Training packages and VET programs and identified major gaps and discrepancies with regard to content on the environment and sustainability.
- A similar study at a national level was conducted in 2005 by Rickard & Condon which found very similar results.
- After this research the National Centre for Sustainability (NCS) began to look at developing guideline standards for sustainability to underpin and be included into a wide range of VET Training packages. Three new standards were developed with each being aimed at different levels of VET provision (Condon & Rickard 2009). By 2006 these were starting to be implemented into an increasing number of programs throughout the VET system.

## Australian policy responses: Skill development and VET

- This review of sustainability orientated content within Training Packages has been followed up and reported in the Industry Skills Council (ISC 2009) report, *Environmental sustainability: an industry response*.
- Some Industry Skills Councils chose to undertake their own reviews such as the IBSA's, *'Scoping skills for sustainability'*, (Toohey 2010).
- Also working within Australian academic VET research, mention needs to be made to the work of Anderson who has conducted a suite of research projects on sustainability for over a decade, (Anderson 2002 & 2009a & b).
- At the heart of this body of research are calls for paradigm, or big picture changes from productivism to ecologism. While consistent with many of the recommendations and findings of UN research and policy documents, Anderson's work remains qualitatively different from most others in the VET sector.

# **Discussion on these policies and responses**



# Conclusion

- As this research project develops we hope to better inform the debates and investigations of green skills in the Australian VET context. This preliminary paper outlines key policy concepts that shape being 'green' in this particular VET setting, focusing on the development of VET practice for a low carbon economy. Key informants and stakeholders are identified from within the VET community; employer and industry voices will assist to guide the investigation in the context of applying the green skills to existing and emerging jobs.
- Green jobs are emerging as industry and enterprises develop an awareness of a fundamental relationship between economic prosperity and environmental sustainability. At the heart of this 'green' relationship is a growing need for an environmentally aware and sustainability-focused labour-force. Herein lies an implicit link between VET practice and a sustainable low-carbon economy. However, as our review of policy indicates, the early momentum for change has been largely driven from government initiatives.
- Ultimately, this project will tell us more about the gaps to be filled in developing new green skills and greening extant VET practice. Such an investigation has the potential to reveal awkward gaps between what we would like to be doing, and what actually happens in the reality of everyday practice. More optimistically, the project also has the potential to highlight the VET community's resolve to respond in a timely and informed way to the emergent demands of a low-carbon economy.