

The labour market in Australia: the case of green jobs for employment sustainability

Ron Kelly
Employment Relations Group
School of Management
College of Business
University of Western Sydney

Introduction

- Who am I?
- What do you want to know?
- Content and Structure
- Asking questions and debating issues.

Overview

- Introduction to the Australian labour market
- Employment relations in Australia
- School-to-work transition
- Green Jobs and employment sustainability
- A future case study- the Eden Project, Cornwall, England.

AUSTRALIA



Introduction to the Australian labour market

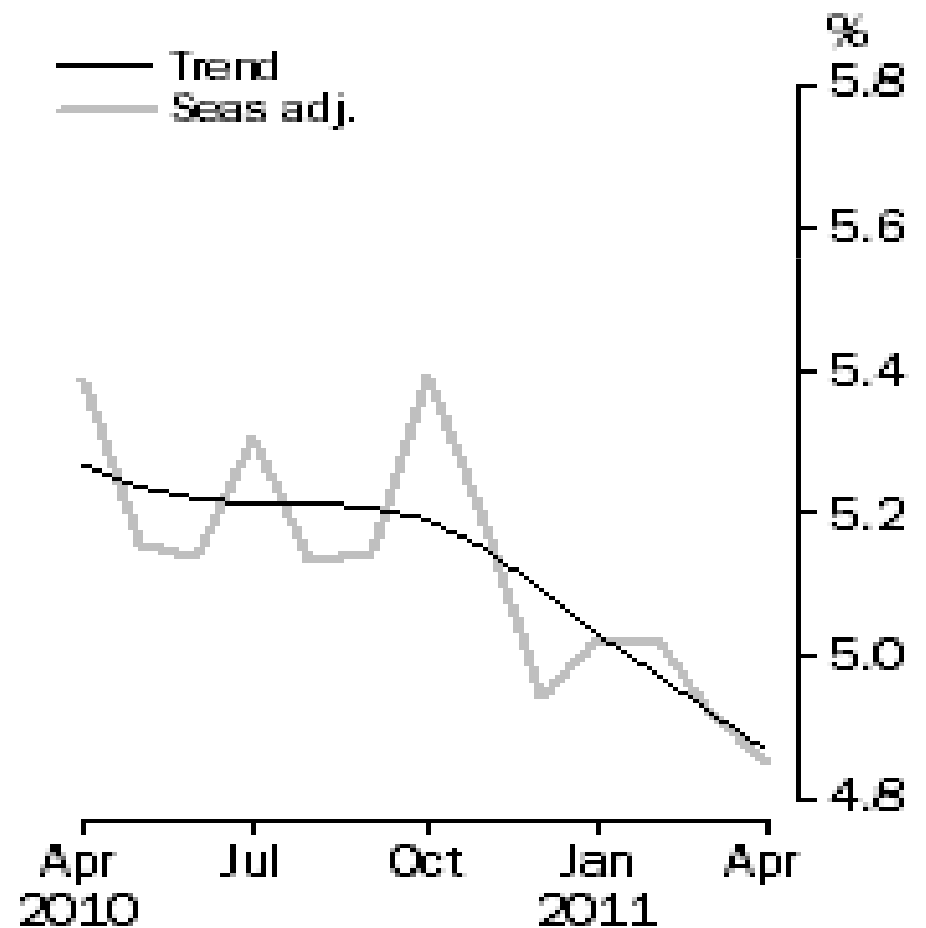
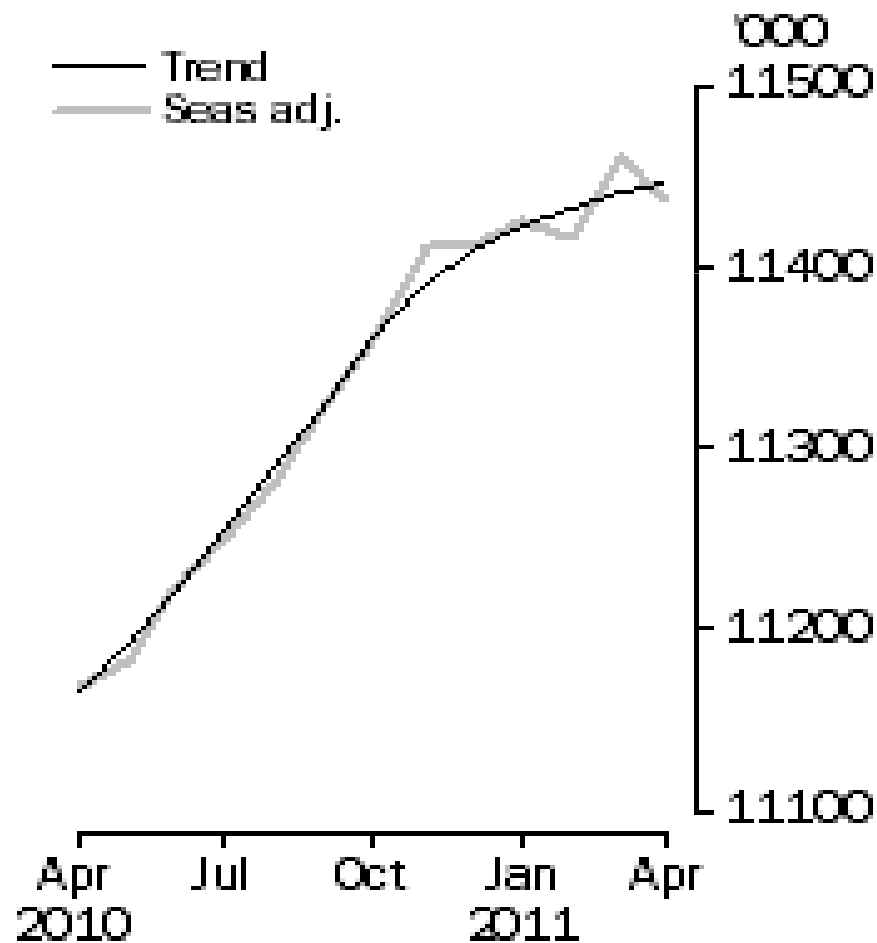
- Size
- Composition
- Changes during the 20th and 21st centuries.

Australian Labour Market Size

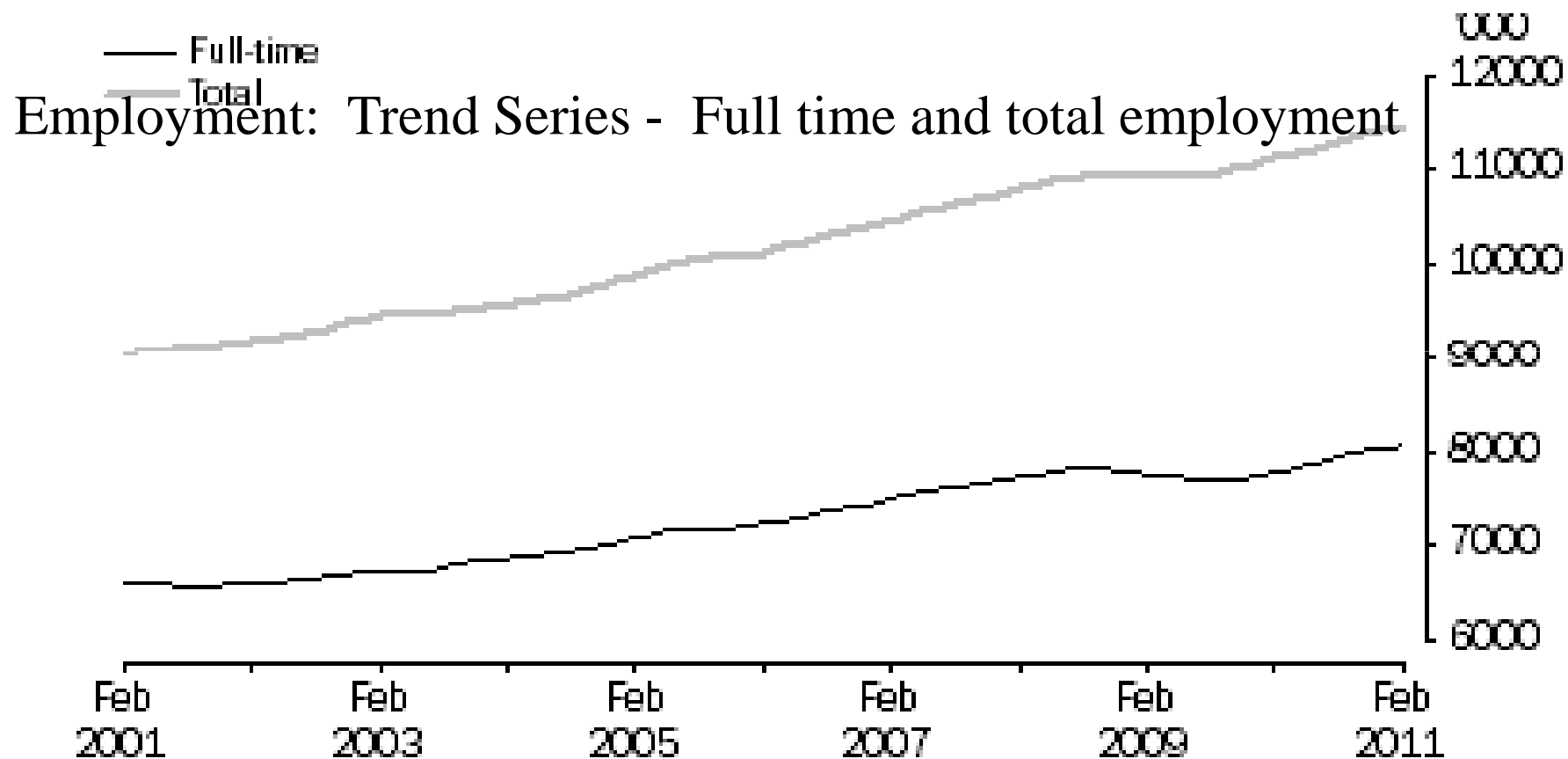
April Key Figures	Mar 2011	Apr 2011	Apr 11 to Apr 11	Apr 10 to Apr 11
Trend				
Employed persons ('000)	11 441.2	11 446.1	4.9	2.5%
Unemployed persons ('000)	591.7	585.7	-6.0	-5.7 %
Unemployment rate (%)	4.9	4.9	0.0 pts	-0.4 pts
Participation rate (%)	65.7	65.7	-0.1 pts	0.3 pts
Seasonally Adjusted				
Employed persons ('000)	11 458.6	11 436.5	-22.1	2.4%
Unemployed persons ('000)	11 458.6 11	436.5	-22.1	2.4 %
Unemployment rate (%)	4.9	4.9	-0.1pts	-0.5 pts
Participation rate (%)	65.8	65.6	-0.2 pts	0.1 pts

Australian Labour Market

- Employed Persons Unemployment Rate



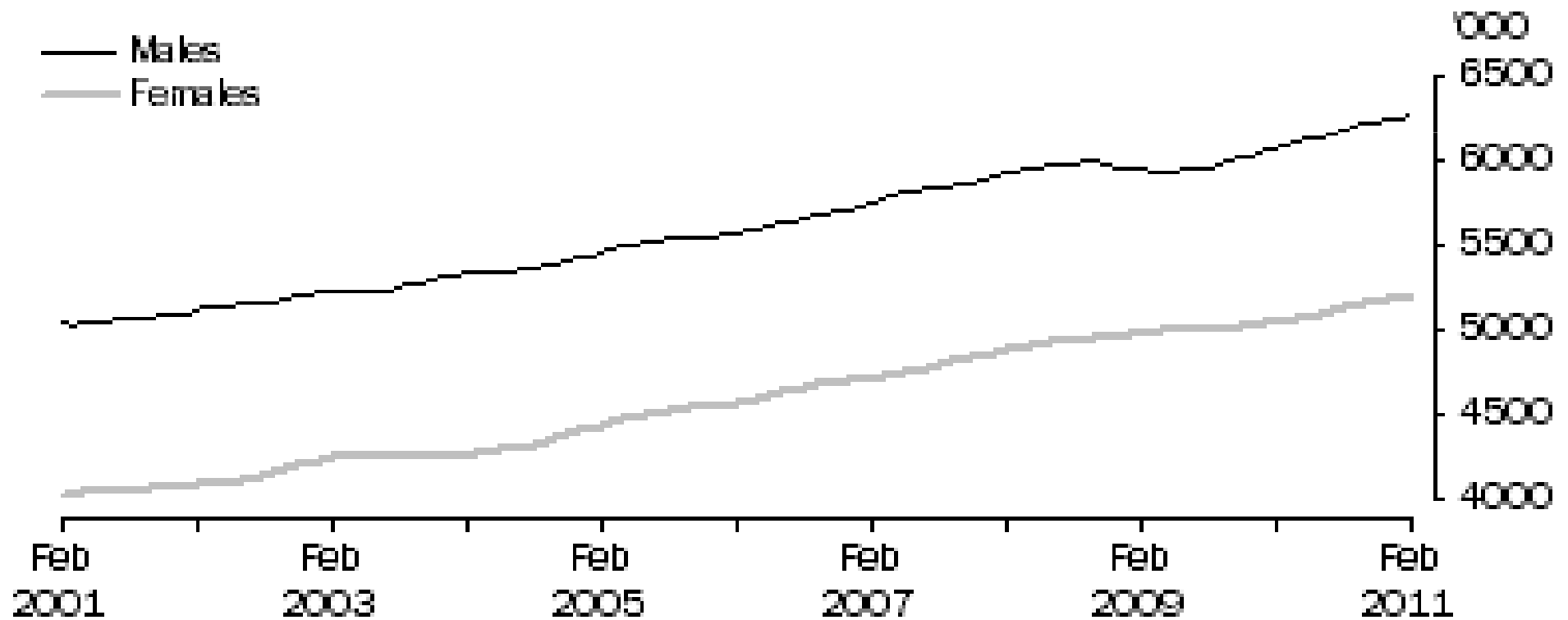
Australian Labour Market



Source: Labour Force Survey.

Australian Labour Market

- Employment: Trend Series - Males and females



Source: Labour Force Survey.

Australian Labour Market

- Australia's (seasonally adjusted) unemployment rate steady at 4.9 per cent in May 2011 (9 June, 2011)
 - The number of people employed increased by 7,800 to 11,440,500 in May. The increase in employment was driven by an increase in part-time employment, up 29,800 people to 3,413,500 and was offset by a decrease in full-time employment, down 22,000 people to 8,027,100.
 - The number of people unemployed increased by 8,900 people to 592,800 in May, reported the ABS
 - The ABS monthly aggregate hours worked series showed an increase in May, up 6.4 million hours to 1,601.1 million hours
 - The ABS reported labour force participation rate in May of 65.6 per cent, which was unchanged from April
 - The ABS reported labour force underutilisation rate was 12.2 per cent in May, up 0.2 percentage points from February.

Australian Labour Market Composition

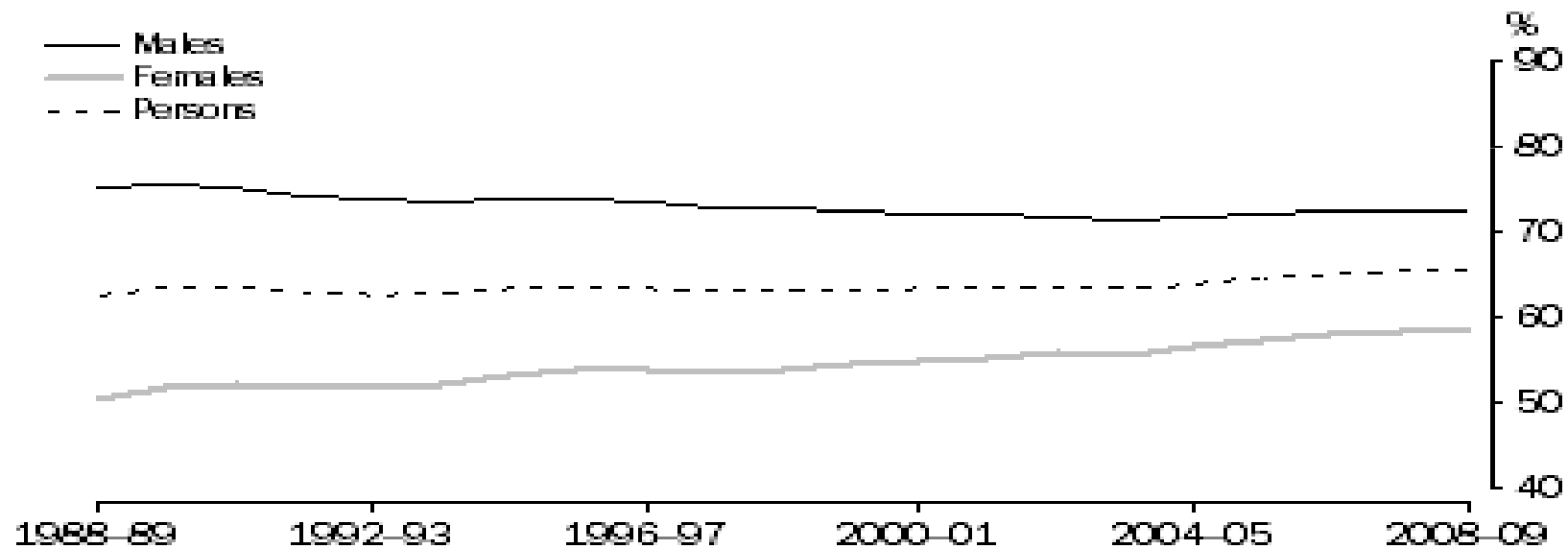
- Composition:- summary
 - Majority of employment is in tertiary (service) sector jobs
 - Decline in secondary sector employment (manufacturing) since the 1970s and especially since the deregulation (1980s) of international trade via cuts in tariffs and quotas
 - Decline to approximately 4-5% in primary sector employment (growing food and mining).

Australian Labour Market Composition

- Labour Force:
 - Total supply of labour available to the labour market during a given short reference period- labour available for the production of economic goods and services_T
 - Employed, unemployed and not in the labour force
 - Size and composition constantly changing because of changes in the labour force participation and changes in the size and composition of the adult population
 - The labour force participation rate is one of the most important indicators for analysing the overall level of labour market activity.. This rate is calculated by dividing the total number of people in the labour force by the total number of people in the civilian population aged 15 years and over.

Australian Labour Market Composition

Labour Force Participation rates- Australian Economy 1988/89-2008/09



(a) Annual averages.

Source: ABS Labour Force, Australia, Detailed – Electronic Delivery (6291.0.55.001).

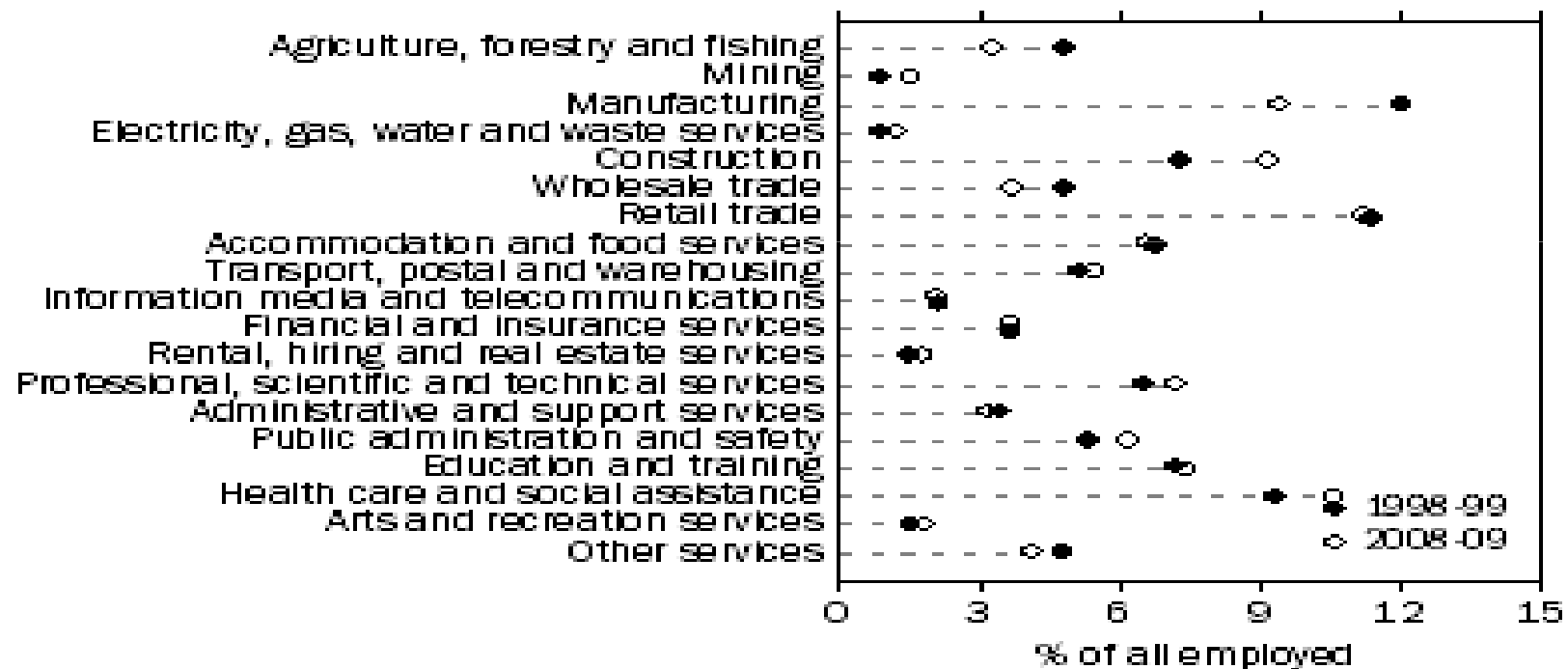
Australian Labour Market Composition

- Employment by Industry and Occupation
 - The distribution of employed people across industries and occupation, and the changes over time provide an important insight into the structure of the labour market. See the following graph which shows the proportion of employed people by industry for the years 1998-99 and 2008-09
 - Industrial composition of the labour market has changed considerably over time.
 - Manufacturing once was the largest employing industry, but employment in it has fallen. Over the last decade, Manufacturing employment fell from 12% to 9%
 - Proportion of people employed in Agriculture, Forestry and Fishing fell from 5% to 3%
 - Increase on proportion of employed people in the construction industry (from 7% to 9%).

Australian Labour Market 10

Composition

- Employed Persons- by Industry



(a) Annual average of quarterly data.

(b) Classified according to the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 (1292.0).

Source: ABS Labour Force, Australia, Detailed, Quarterly (6291.0.55.003).

Employment Relations in Australia

- Historical Overview
 - Movement from 18th Century inheritance of British industrial relations framework
 - Gold rushes in Victoria and New South Wales during the 1850s and later- rise of a concept of the right to fight for improved working conditions
 - Increasing industrialisation- movement from primary to secondary industries in 19th and 20th Centuries- growth of trade unions and protection of local industries
 - Mid 20th Century to the present- growth of tertiary industries- services- financial, retailing, property, educational and health
 - Decline of Government-owned business enterprises and rise of privatised versions- CBA, Telstra, SGIO, electricity provision- reduction in union power as numbers decreased.

Employment Relations in Australia

- T Also known in Australia as ‘Workplace Relations’
 - The relationships and interactions in the labour market between employers and employees (and their representatives), and the intervention in these relations by governments, government agencies and tribunals (e.g. Fair Work Australia)
 - Historically, governments have regulated the Australian labour market to varying degrees. Changes to the structure or processes underpinning the workplace relations environment have generally followed changes in governments, and periods of social or economic change. For most of the last century, employee-employer relationships were shaped by highly centralised Commonwealth and state tribunal-based systems of conciliation and arbitration. However, since the late 1980s, the workplace relations environment in Australia has undergone significant change and is now characterised by more decentralised arrangements.

Employment Relations in Australia

- How pay is set:
 - Three different methods of setting pay are identified - awards, collective agreements, and individual arrangements.
 - Awards or pay scale only
 - Collective agreements
 - Individual arrangements.

Employment Relations in Australia

- How pay is set: - overview:

- In August 2008, 17% of employees had their pay set by award or pay scale only, 40% of employees had their pay set by collective agreement, 39% by a registered or unregistered individual arrangement. Working proprietors of incorporated businesses accounted for 5% of employees).

The proportion of employees who had their pay set by an award or pay scale decreased from 19% in May 2006 to 17% in August 2008. The coverage of this method of setting pay has declined over the last 8 years, from 23% in May 2000 to 17% in August 2008.

- The proportion of employees whose pay was set by a collective agreement had a 1 percentage point decrease between May 2006 (41%) and May 2008 (40%).

Employment Relations in Australia

- How pay is set: - overview:
 - For registered and unregistered individual arrangements, there was a 4 percentage point increase between May 2006 (35%) and August 2008 (39%)
 - In August 2008 nearly half (45%) of employees in the private sector had their pay set by an unregistered individual arrangement (i.e. which was not registered with a federal or state tribunal) and a further 26% of employees in the private sector had their pay set by a registered collective agreement
 - In contrast, almost all (96%) of the public sector employees had their pay set by a registered collective agreement.

Employment Relations in Australia

- How pay is set: - overview:
 - The proportion of female employees who had their pay set by award or pay scale only was 20%, compared with 13% of male employees
 - Collective agreements were also a more common method of setting pay for female employees (43%) than for male employees (37%), while registered or unregistered individual arrangements were more common amongst male employees than female employees (43% compared with 34%)
 - Male employees were twice as likely (8%) to be working proprietors of incorporated businesses than female employees (4%).

School-to-work transition

- Current Situation
 - Similarities and differences between the various states
 - Primary education: Kindergarten to Yr 6 (compulsory)
 - Secondary education: Yr 7 to Yr 10 (compulsory)- option to take Yr 11 and 12- majority 'go on to Yr 12'.

School-to-work transition

- Education and Training
 - (Primary and secondary education provided 'free' by the relevant State or Territory Government- with the option of a 'private' school education for parents who can pay for it)
 - Technical Education (TAFE) from end Yr 10, Yr 12 or in later years of people's lives (low fee payment)
 - University (after completion of Yr 12) or later as a 'mature-aged student' (fees have risen in the last 2 decades).

School-to-work transition

- Education and Work
 - In May 2010, there were 14.5 million people aged 15-64 years (Table 2) and 302,400 people aged 65-74 years in the labour force or marginally attached to the labour force
 - Of those aged 15-64 years, 2.8 million (20%) were enrolled in a course of study. Approximately 1.1 million (39%) of these enrolled people were attending a higher education institution, 755,700 (27%) were at school, 598,500 (21%) were at Technical and Further Education (TAFE) institutions, and 383,800 (14%) were at other educational institutions.
 - In May 2010, 53% of people aged 15-64 years enrolled in a course of study were female, 41% were aged 15-19 years, 64% were studying full-time, and 26% were born overseas (Table 1).

School-to-work transition

- Education and Work- Study for a qualification:
 - Approximately 96% (2.7 million) of people aged 15-64 years who were enrolled in formal or non-formal learning were enrolled in formal learning
 - The proportion of people aged 15-64 years who were enrolled in formal learning, that is study that is likely to lead to a recognised qualification, increased from 17% in 2001 to 19% in 2010
 - For females aged 15-64 years, approximately 17% were enrolled in formal learning in 2001, compared to 20% in 2010
 - Male enrolments in formal learning were 17% in 2001 and 18% in 2010.

School-to-work transition

- Education and Work- Study for a qualification
 - Over one-third (38%) of people aged 15-64 years who were enrolled in a non-school qualification were studying for a Bachelor's Degree.
 - Almost half of these people (48%) were aged 20-24 years and 26% were aged 15-19 years.
 - Of the 1 million females aged 15-64 years enrolled in a non-school qualification, 55% were completing a Bachelor Degree or higher qualification, compared to 49% of 904,100 males.
 - More females than males were enrolled in most non-school qualifications, however for Certificates III and IV, there were 253,400 males enrolled compared to 195,800 females
 - Over one-quarter (28%) of males enrolled in a non-school qualification

School-to-work transition

- Education and Work- Study for a qualification:
 - As in 2009, the most commonly reported main field of education of current study for people aged 15-64 years enrolled in a non-school qualification in 2010 was Management and commerce (25%), followed by Society and culture (19%)
 - The fields of Health and Education both recorded an increase in the proportion of people enrolled in 2010, 12% and 7% respectively, up from 10% and 6% in 2009
 - One-fifth (20%) of males aged 15-64 years enrolled in a non-school qualification were studying in the main field of Engineering and related technologies, compared to 1% of females aged 15-64 years.

School-to-work transition

- Education and Work- Study for a qualification:
 - Of the 362,600 people aged 15-64 years enrolled in the field of Society and culture, 69% were female
 - People studying in the main field of Health increased from 9% of persons aged 15-64 years enrolled in a non-school qualification in 2001 to 12% in 2010
 - Of the 234,400 people aged 15-64 years enrolled in the field of Health, 76%

School-to-work transition

- Education and Work- Attainment: Level of highest non-school qualification
 - The proportion of people aged 15-64 years with a non-school qualification increased from 47% in May 2001 to 56% in May 2010, with the proportion of people with a Bachelor Degree or above increasing from 17% in May 2001 to 23% in May 2010
 - Over the same period the proportion of people whose highest non-school qualification was an Advanced Diploma or below increased from 29% to 31%. The proportion of people aged 55-64 years with a non-school qualification increased from 42% in May 2001 to 54% in May 2010.

School-to-work transition

— Education and Work- Attainment: Level of highest non-school qualification

- Among the 8.1 million people aged 15-64 years in May 2010 with a non-school qualification, the most commonly reported main fields of education for the highest non-school qualification were Management and Commerce (1.9 million or 24%) and Engineering and related technologies (1.4 million or 17%).
- In May 2010, more males than females aged 15-64 years had a non-school qualification (4.1 million and 4.0 million respectively)
- Almost one-third (29%) of people aged 15-64 years reported their level of highest educational attainment as Year 11 or below and 21% reported Year 12.

School-to-work transition

- Education and Work- Attainment: Level of highest non-school qualification
 - Additionally, almost one in four (23%) had a highest level of attainment of Bachelor Degree or above and 17% had a Certificate III or IV.
 - Compared to all Australian states and the Northern Territory, a higher proportion of people in the ACT reported Bachelor Degree and above levels of educational attainment. Almost two-fifths (38%) of people in the ACT had a Bachelor Degree or above as their highest level of educational attainment.
 - In May 2010, of the 1.6 million people aged 65-74 years, 302,400 (19%) were in the labour force or marginally attached to the labour force. Of these, 23% had a Bachelor Degree or above. Over two-fifths (41%) reported their level of highest educational attainment as Year 11 or below.
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School-to-work transition

- Transition From Education To Work- Completing a non-school course of study:
 - In May 2010, there were 971,500 people aged 15-64 years who were enrolled in a non-school qualification in 2009 but were not enrolled in May 2010
 - These people were more likely to be employed full-time in May 2010 than the general population (59% compared with 52%).

School-to-work transition

- Transition From Education To Work- School Leavers
 - In May 2010, there were 351,200 people aged 15-24 years who were enrolled in secondary school in 2009 but were not in May 2010
 - Of these school leavers, about half (57%) were enrolled at a non-school institution in 2010 and 25% were employed and not studying
 - In 2010, 10% of school leavers aged 15-24 years were unemployed and not enrolled at a non-school institution with a further 8% not in the labour force and not enrolled at a non-school institution.

School-to-work transition

- Transition From Education To Work- Apprentices
 - In May 2010, there were 171,600 people aged 15-64 years who were employed as apprentices and part of the Australian Apprenticeship Scheme. Of these, 66,300 people had commenced their apprenticeship in the last 12 months
 - In 2010, the majority of apprentices (88%) were males. The highest number of apprentices, 41,200 were working within the Construction field of trade followed by the Automotive and engineering field of trade with 39,400 persons
 - There were 20,200 people who gained a place for an apprenticeship/traineeship but were not undertaking it in May 2010, while 40,300 people who applied for an apprenticeship/traineeship in 2010 were unsuccessful in gaining a place.

References

- The major reference for the first part of this seminar is the Australian Bureau of Statistics website (and linked sites):
 - <http://www.abs.gov.au/>

Green jobs and employment sustainability

- An important part of the response to climate change and environmental deterioration is the creation of a range of new or restructured jobs and tasks that have been labelled ‘green jobs’ or ‘green collar jobs’
- This paper poses the question of whether such green jobs can create employment sustainability for those employees who undertake such types of work.

Introduction

- Concerns about climate change have lead to consideration of (i) the types of jobs that will emerge as the nations of the world attempt to deal with the challenges posed by climate change and (ii) whether such jobs will themselves provide employment sustainability for their occupants
 - *2006 Stern Review on the Economics of Climate Change (cited in Evans, 2007:5) argued the case for employment creation in businesses using low-carbon technologies and other low carbon goods and services.*

Introduction

- Evans (2009:5) argues that:
 - *As the world's major economies become more carbon conscious, it is evident that this is triggering a kind of new industrial revolution that like the nineteenth and twentieth century revolutions, will have big implications for jobs and skills.*

Aim of this paper

- Exploratory
- Define green jobs and employment sustainability in the context of an emerging network of low carbon national economies
- Assess the potential for such jobs to lead to employment sustainability for their occupants.

Research Method

- Investigate the literature to provide definitions for green jobs and employment sustainability
- Examine the nature of green jobs to assess their potential to provide employment sustainability for their occupants
- Argue the case for some green jobs leading to employment sustainability.

Defining employment sustainability and green jobs

- The meaning of employment sustainability is open to interpretation:
 - *Green employment practices that support the cultural shift toward managing the triple bottom line by creating and maintaining workplaces that are safe, healthy, functional and embody sustainability principles ’ Stacey (2005:2)*
 - *Sustainability jobs as those that create a sustainable future (Sustainability Jobs, 2009)*
 - *Creation of ‘decent work for all ’ as a ‘defining challenge of the 21st century ’ (Poschen (2009) .*

Defining employment sustainability and green jobs

- The meaning of employment sustainability is open to interpretation:
 - *Employment sustainability requires balance in the way that organisations match their operational and fiscal needs with their safety, health, emotional, personal and financial needs of their employees (Stacey, 2006)*
 - *Employment sustainability is ‘the maintenance of a stable or upward employment trajectory in the longer term’ (Kellard, Walker, Ashworth, Howard and Liu, 2001: iii) (This is the definition which is used).*

Defining employment sustainability and green jobs

- The meaning of ‘green jobs’ is likewise open to interpretation
 - *ACF (2008) - those jobs that contribute to better environmental outcomes increased sustainability and range from low-skill, entry-level positions to high-skill, higher-paid jobs and include opportunities for advancement in both skills and wages*
 - *Spierings (2008) - such jobs relate to specific sectors and tasks: e.g. renewables, waste water and recycling, public transport, landscape and land management. He also notes that: every where—all workplace and work practices have environmental impacts (so) adaptation and efficiency may be as vital as mitigation’ in the work done in green jobs.*

Defining employment sustainability and green jobs

- The meaning of ‘green jobs’ is likewise open to interpretation
 - *Because as Mazur cited in Murphy (2009:10) notes, such jobs may not be listed as such ‘because, the term green, is just a buzz word’ - he notes that existing jobs may become greener if greener skills become a requirement for hiring and continued employment in such jobs (see training for green jobs later in this paper)*
 - *Green jobs can be new jobs, but the vast majority are in the same areas of employment that people already work in today’ (Pollin, Gerratt-Peltiar, Heintz and Scharber, 2008:5).*

Defining employment sustainability and green jobs

- The meaning of ‘green jobs’ is likewise open to interpretation
 - *Existing professionals and service providers, such as ‘accountants, lawyers, office clerks, human resource managers, cashiers, and retail sales people’ (Pollin et al., 2008:5) can experience an increase in demand for their services as a consequence of the growth of green jobs*
 - *Pochen (2009) overviews green jobs in the context of those that provide a response to climate change.*

Table 1: Green investments and jobs

- *Building retrofitting:*
- *Mass transit/freight rail:*
- *Smart grid:*
- *Wind power:*
- *Solar power:*
- *Advanced biofuels:*

Pollin, R., Gerratt-Peltier, H., Heintz, J. and Scharber, H. (2008), *Green Recovery— A Program to Create Good Jobs and Start Building a Low-Carbon Economy*, Department of Economics and Political Economy Research Institute (PERI) University of Massachusetts-Amherst, p.6.

Within these fields there are a considerable number of jobs that can be considered as or be remodeled to become green jobs.

Can Green jobs lead to employment sustainability?

- While green jobs are likely to increase as part of governmental and private sector responses to climate change and the need to deal with a range of environmental issues, it is not automatically the case that green jobs are ‘good jobs’ (i.e. providing employment sustainability (Pochen, 2009))
- However he does note that this situation can be reversed
- To determine whether green jobs can lead to employment sustainability, this paper identifies a range of green jobs and analyses their potential to provide employment sustainability for their occupants.

Can Green jobs lead to employment sustainability?

- Using the jobs listed in Table 1 to provide a representative sample of green jobs, the employment sustainability definition of a continuation of employment with the opportunity for both development and promotion over time (Kellard et al., 2008) and research observations made by Renner et al., 2008 to provide criteria, then such jobs are assessed to determine the likelihood of them leading to employment sustainability.

Can Green jobs lead to employment sustainability?

- Criteria:
 - (i) established firms will tend to ‘green their operations’ — existing jobs may be transformed and therefore preserved against possible loss (thus implying changes in work methods (and) retraining; (ii) construction and installation jobs (for instance of a wind turbine) are usually of a temporary nature (as are jobs supported by a specific policy measure or program); and (iii) manufacturing and maintenance jobs, on the other hand, are in principle of a longer-lasting nature (Renner et al., 2008: 44).

Can Green jobs lead to employment

- **Table 2: Green jobs and employment sustainability?**
sustainability
- *Building retrofitting*
- Electricians, Heating/Air Conditioning Installers, Carpenters, Construction Equipment Operators, Roofers, Insulation Workers, Carpenter Helpers, Industrial Truck Drivers, Construction Managers, Building Inspectors
 - *The individuals working in the jobs listed in this category are likely to experience varied employment sustainability*

Can Green jobs lead to employment

- **Table 2: Green jobs and employment sustainability?**
- *Mass transit/ Freight rail*
- Civil Engineers, Rail Track Layers, Electricians, Welders, Metal Fabricators, Engine Assemblers, Bus Drivers, Dispatchers, Locomotive Engineers, Railroad Conductors
 - *While there is an element of construction activity in this field (and thus the possibility of short-term employment according to Renner et al., [2008]), the large-scale commitment of resources to mass transit/freight rail would seem to ensure significant **ongoing** maintenance activities/service provision to passengers and customers and thus work continuity/employment sustainability.*

Can Green jobs lead to employment sustainability?

- **Table 2: Green jobs and employment sustainability**
- *Smart grid*
 - Computer Software Engineers, Electrical Engineers, Electrical Equipment Assemblers, electrical Equipment Technicians, Machinists, Team Assemblers, Construction Labourers, Operating Engineers, Electrical Power Line Installers and Repairers
 - *Appears to be various levels of employment sustainability.*

Can Green jobs lead to employment sustainability?

- **Table 2: Green jobs and employment sustainability**
- *Wind Power:*
 - Environmental Engineers, Iron and Steel Workers, Millwrights, Sheet Metal Workers, Machinists, Electrical Equipment Assemblers, Construction Equipment Operators, Industrial Truck Drivers, Industrial Production Managers, First-Line Production Supervisors.
 - *As noted by Renner et al., (2008:44), green economy jobs that involve construction and installation ‘are usually short-term because they are often supported by a specific policy measures or program’. (However Solar Power below)*

Can Green jobs lead to employment

- **Table 2: Green jobs and employment sustainability?**
sustainability
- *Solar Power:*
- Electrical Engineers, Electricians, Industrial Machinery Mechanics, Welders, Metal Fabricators, Electrical Equipment Assemblers, Construction Equipment Operators, Installation Helpers, Laborers, Construction Managers
 - *To the extent that this employment field is similar to that of Wind Power, then similar observations apply about the employment sustainability for people who work in such jobs. However, employment in this industry around the world is likely to continue to increase in coming decades, but employees would need to be flexible in their willingness to chase the jobs, to stay in the industry.*

Can Green jobs lead to employment

- **Table 2: Green jobs and employment sustainability?**
sustainability
- *Advanced Biofuels*
 - Chemical Engineers, Chemists, Chemical Equipment Operators, Chemical Technicians, Mixing and Blending Machine Operators, Agricultural Workers, Industrial Truck Drivers, Farm Product Purchasers, Agricultural and Forestry Supervisors, Agricultural Inspectors
 - *Renner et al. (2008) identifies manufacturing as a generally long-term activity, thus it does appear that green job employment in this field is sustainable.*

Green Job Training

- A recurrent theme in the employment sustainability of workers in the green jobs identified above is the need for adaptability and training for them to remain employed, enhance their employability and experience employment sustainability
 - *Need for green job training recognised by: Poschen (2009), Renner et al. (2008:290, citing the ILO Skills for Improved Productivity, Employment Growth and Development' Report V, 97th Session, 2008) and Evans (2009)*
 - *Response to this green job training need by the Commonwealth Government of Australia (Green Corps Activities Program, 2009 for job seekers) and NSW State Government (Green Skills NSW training package for 9 industries - 2009)_*

Discussion

- The issue of employment sustainability is not new. Labour market practices in a number of Western developed economies during the last 30 years have resulted in high levels of casualisation and uncertain part-time employment for millions of employees
- While the creation of new or remodeled jobs that support low-carbon, climate friendly economies is potentially beneficial, it is important for the question to be raised as to the employment sustainability of green jobs in general. This is important for those people who undertake them and for those whose own work and/or business success may come to rely more on the outputs of such green jobs
- Varied indications about the existence of green job training-the Commonwealth Government of Australia seems to be supporting short-term jobs, whereas the NSW Government appears to be trying to provide green jobs skills training for jobs that potentially can give employment sustainability.

Conclusions/recommendations/future research

- Green jobs *can* lead to employment sustainability—as noted in Table 2, the strength of this linkage does appear to rely on the nature of the green job and work that individuals perform
- For employees (whether in green jobs or not) it is vital for them to maintain and update their skills sets- needed so that they can continue to meet the requirements of their changing work roles and retain their ability to be employable
- Challenges to their employability can arise if they, of their own volition, decide to change jobs or are, through circumstances in their existing workplaces, required to find other employment.

Conclusions/recommendations/future research

- This author does recommend that the study of green jobs in the context of employment sustainability is both worthwhile and viable for two reasons. Firstly, because of the nature of world economy and thus the labour markets that service this economy, there is a need to provide both new jobs and jobs that will contribute to employment sustainability and the environmental sustainability of the world
- Further research to be based on extended investigations over a period of time to test the tentative conclusions drawn in this paper. As an empirical study, it would need to involve employee, employer, government, trade union and other stakeholder views on the nature of the relationship between green jobs and employment sustainability.

References

- ACF (2008), *Green Jobs Fact Sheet*, 24th September,
- [www.acfonline.org.au/uploads/res/Green Jobs Fact Sheet no footnotes 080925 final.pdf](http://www.acfonline.org.au/uploads/res/Green_Jobs_Fact_Sheet_no_footnotes_080925_final.pdf), (accessed 3.11.09).
- Evans, B. (Chairman) (2007), *Skills for Sustainability*, New South Wales Board of Vocational Education and Training.
- Evans, B. (Chairman) (2009), *Skills for Sustainability*, New South Wales Board of Vocational Education and Training.
- Green Corps Activities Program (2009), <http://www.deewr.gov.au/Employment/JS/EmploymentService/WorkExperience/Pages/greenCorps.aspx>, (accessed 24.12.09).
- Hatfield-Dodds, S., G. Turner, Schandl, H. and Doss, T. (2008), *Growing the green collar economy Skills and labour challenges in reducing our greenhouse emissions and national environmental footprint*. Report to the Dusseldorp Skills Forum, June 2008, CSIRO Sustainable Ecosystems, Canberra.

References

- Kellard, K., Walker, R., Ashworth, K., Howard, M. and Liu, W. (2001), *Staying in Work: Thinking about a New Policy Agenda*, Research RR 264, Department of Education and Employment, Norwich, United Kingdom.
- Murphy, A. (2009), 'Finding green collar jobs', *Australian Career Practitioner*, Vol., 20, Issue, 2, p. 10.
- Royal Pingdom (2009), 'The size of IBM makes Microsoft and Google look like tiny upstarts', Pingdom, <http://royal.pingdom.com/2009/05/04/ibms-size-makes-microsoft-and-google-look-like-tiny-startups/>, (accessed 3.11.09).
- Pochen, P. (2009), 'United Nations and International Labour Organisation's Green Job Initiative-Green Jobs, Towards decent work in a sustainable, low-carbon world', *Climate Change at Work- Creating the sustainable workplace Conference*, Workplace Research Centre, University of Sydney, Hilton Hotel, Sydney, 3rd April, 2009.
- Pollin, R., Gerratt-Peltier, H., Heintz, J. and Scharber, H. (2008), *Green Recovery- A Program to Create Good Jobs and Start Building a Low-Carbon Economy*, Department of Economics and Political Economy Research Institute (PERI) University of Massachusetts-Amherst
- Prime Minister of Australia/ Media Release (2009), '50,000 new green jobs and green skills training places for a stronger greener Australian economy', *Prime Minister of Australia*, 30th July, 2009, <http://www.pm.gov.au/node/6078>, (accessed 24.12.09).

References

- Spierings, J. (2008), *Green collar work: The potential in Australia*, presentation given at the Workplace Relations Centre, University of Sydney, April, on behalf of the Dusseldorp Skills Forum.
- Stacey, M. (2005), 'Green Employment Practices: Using Sustainability to Improve Your Bottom Line', *Green Employment Practices- Employment Roundtable*, After Wynne LLP, Attorneys at Law, 17 February, pp.1-14.
- Stacey, M. (2006), 'Sustainability in employment: Its about achieving a balance', *Portland Business Journal*, 1st September, <http://portland.bizjournals.com/portland/stories/2006/09/04/focus10.html>, (accessed 3.11.09).
- Sustainability Jobs, (2009), 'What Sustains You', <http://www.sjobs.com.au/SustainabilityJobs.pdf>, (accessed 3.11.09).
- Renner, M., Sweeney, S. and Kubit, J. (2008), 'Green Jobs (Report): Towards decent work in a sustainable. low-carbon world, produced by the Worldwatch Institute and Cornell Global Labor Institute Report and commissioned by, UNEP, ILO, IOE and ITUC Green jobs Initiative, UNEP, Nairobi, Kenya, http://www.unep.org/labour_environment/PDFs/Greenjobs/UNEP-Green-Jobs-Report.pdf, (accessed 24.12.09).

A future case study- the Eden Project, Cornwall, England

- Purpose of the Eden Project
- Link to green jobs and employment sustainability.

A future case study- the Eden Project, Cornwall, England



The Eden Project

- Reason for selection
- Purpose of the Eden Project

The Eden Project

- Why research the Eden Project?
 - To quote its own website <http://www.edenproject.com/whats-it-all-about/index.php>
 - We built the Eden Project in Cornwall in a disused clay mine, transforming it into a rich, global garden where people can learn about nature and get inspiration about the world around them.
 - Eden is large tourist attraction, an educational charity and social enterprise and much of our energy goes into:
 - running transformational social and environmental projects on our doorstep and around the world
 - creating unforgettable learning experiences for students
 - putting on fantastic arts, theatre and music events
 - creating stunning gardens as well as doing valuable research into plants and conservation
 - making sure we run our operations in the greenest possible way.

The Eden Project



The Eden Project

- So, in brief, this organisation is attempting to provide educational, leisure and research services for many people who have heard or read about its activities in a way that itself is aiming towards environmental sustainability
- A research project that examined the development of employment opportunities- from the perspectives durability and flexibility would make a useful contribution to the debate about green jobs and the nature of the employment that they provide.

The Eden Project

- Employment Profile:
 - Eden employs around 400 core staff and has been in operation for 10 years (17 March 2011) and is a major employer in the county of Cornwall, England
 - Eden provides opportunities for a wide range of posts covering an even wider range of skills, from horticulture, education and catering, to maintenance, commercial operations and head office type jobs
(<http://www.edenproject.com/careers/>)
 - Eden employs people in a wide range of jobs and offers many different career opportunities which include: education officers, horticultural supervisor, pollinator, program manager, retail operative, skilled horticulturalist and steward (<http://www.edenproject.com/careers/career-profiles/index.php>)

Questions please !!