



SACOSS

*South Australian Council
of Social Service*

**Social Infrastructure
*shift the focus to human capital***

**SACOSS Principles Paper No. 5
July 2009**

*You can!**
help create a better State

*South Australian
State Election 2010*

Social Infrastructure: shift the focus to human capital
SACOSS Principles Paper No. 5 July 2009

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You can!*

help create a better State

In the lead up to the 2010 South Australian State Election, political parties, independent candidates and interest groups are all constructing their policy platforms. This means that effectively, the future of South Australia is under construction and this is the best opportunity to influence the development of public policy as political parties and candidates *respond to public opinion* – it is our strongest weapon to ensure progressive and equitable policies!

The policy development process should not be taken for granted: politicians and senior bureaucrats need to know what issues are of concern to the voting public and what direction we want them to take. This paper is one of five SACOSS principles papers that are intended to assist politicians, bureaucrats, interest groups and the broader public to consider what principles should underpin policy development in the lead up to the State Election 2010.

With the right policies – policies that look to the long term future of our State – we can make people the foundation of policy in South Australia. By focusing on long term, preventative policies, we can ensure the prosperity of our State is shared with all South Australians.

Start reading beyond the headlines, stop taking the party political process for granted, start questioning your local candidates — and help create a brighter future.

*Visit our website for ideas, information and research, tips and tools,
and to add your comments about the State Election and beyond.*

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Preamble

Throughout its State Election 2010 strategy formation, as in all other work, consideration is given by SACOSS to those for whom disadvantage is more common and more entrenched. While the Principles Papers themselves do not specifically mention these groups in detail, the core work of SACOSS, based on its vision of *Justice, Opportunity and Shared Wealth for all South Australians*, leads it to always bear in mind the circumstance of the most vulnerable and disadvantaged in our society.

The question of who is most disadvantaged is often framed in a negative way – that is, who is, and who isn't, most deserving of understanding and assistance. SACOSS does not view these issues in this way, nor does it believe that they should be. There are many groups in society disproportionately represented in statistics on poverty, unemployment, incarceration, low levels of schooling and skills acquisition, and poor access to more of the societal goods many of us take for granted every day. Evidence suggests that the following groups in contemporary South Australian society are the most disadvantaged, and must be kept in mind when reading SACOSS materials:

- Aboriginal and Torres Strait Islander people
- Children from low income families
- The ageing population
- Homeless people
- People with disabilities
- Regional and remote communities
- Women
- Young people
- Culturally and Linguistically Diverse (CALD) communities

Members of these groups are overrepresented on a number of indicators of poverty and disadvantage, including:

- Poor access to safe, secure and affordable housing
- Unemployment and under-employment
- Lack of access to education and training opportunities
- Poor access to health and other support services
- Lack of access to appropriate transport and transport services
- High levels of drug and alcohol abuse
- High levels of incarceration
- High levels of family breakdown
- Lack of social participation

Throughout its Principles Papers and its other State Election 2010 material, the focus of SACOSS is on the specific policy areas they aim to address. By maintaining a broad view of the issues it sees as important, SACOSS hopes that the reader will make use of the facts, figures and findings of these papers to inform their views of the issues and to make their own decisions regarding policy directions for South Australia.

This paper is informed by the following:

Principles

Social Participation — Recognition of the continuum from employment, education and training to social participation. The provision of funded education and training opportunities to the long term unemployed needs to accompany policies and funding for recently retrenched workers.

Workforce Participation — A concerted effort needs to be made to increase the participation rates of under-represented groups in the South Australian workforce. A dedicated and targeted approach is needed to reach the goal of equal the national workforce participation rate.

Access to Training — Access to vocational education and training needs to be improved in order to mitigate the worst effects of the global financial crisis and to prepare society for economic recovery. Ensure equity in access to training in rural/remote and metropolitan areas.

Counter-Cyclical Funding — Training and education linked to social participation should be one of the main goals of counter-cyclical infrastructure spending.

Sustainability — Sustainability and sustainable industry and infrastructure should be the main drivers of infrastructure project identification and government funding.

Executive Summary

The Global Financial Crisis, precipitated by the sub-prime crisis in the US and caused by the unregulated global trade in credit default swaps, has left companies, financial institutions and national economies across the world vulnerable if not insolvent. The Australian and South Australian economies are not immune to the negative effects of the global economic downturn, with the national economy set to enter into recession and the state economy not expected to escape unscathed. While there is some hope that South Australia will escape the worst of the downturn, higher levels of unemployment and lower levels of economic activity can be expected in the medium term.

Projected higher levels of unemployment and historically low levels of employment participation and non-school qualifications present the South Australian Government with both a challenge and an opportunity. Research has shown that long periods of disengagement with the workforce render workers less employable, and this adds further impetus to the need to invest heavily in the infrastructure required to protect the loss of existing human capital, reengineer that capital where needed, and raise new human capital through training and skills to pave the way for future growth in South Australia. Such an approach requires investment in 'social infrastructure' in the broad sense – investment in employment, education and training programs and opportunities.

One of the main areas for future growth promises to be in the 'green economy', and thus green jobs are vital for South Australia's future. By augmenting current federal government funding for training and workforce development – social infrastructure – as well as for physical infrastructure, the state government can help to alleviate the workforce issues currently faced, while making South Australia a leader in the green economy. Robust policy initiatives that recognise the continuum from education and training opportunities to employment (and ultimately broader social participation), will represent investment in a sustainable future and a reinvigorated economy for South Australia.

Major findings

- The unemployment rate in South Australia is 5.8%, compared with 5.4% in Australia. The percentage of people participating in the workforce in South Australia is 63.6%, compared to 65.5% across the nation (April 2009).
- To weather the impact of the global financial crisis, South Australia will need 337,000 accredited university and VET graduates over the next seven years. However, South Australians are less likely to have post-school qualifications: currently 50.7% compared to the Australian average of 53.9%.
- South Australia already leads the nation in renewable energy and other 'green' industries – to maintain this lead, skills for these industries will need to be taught through universities and the VET system.
- South Australia has an older population than Australia as a whole, meaning significant effort is required to educate and train the workforce in new technologies and ways of working. Our state also suffers from a 'brain drain' – the movement of young, highly-educated people to the eastern states.
- Manufacturing no longer represents the core of South Australia's economy, having dropped from representing 28.3% of the South Australian workforce forty years ago, to 12.5% in 2008. The enormous growth of the services industry (everything from retail to hospitality to administration) means it is now the sector most vital to preparing the state's economy for the future.
- 31.3% of all employed persons in South Australia are employed part-time (that is, working between 1 and 34 hours per week): 16.2% of males and nearly half of all employed females (49.4%) (ABS, 2008)

- As many as 37 million jobs may be created in the US green economy by 2030, representing over 17% of all jobs created.
- The majority of professions required for the green economy include electricians and mechanical engineers, as well as other workers from traditional occupations.
- Sub-sectors showing the most growth were solar thermal and photo-voltaics, biofuels and fuel cells.
- Approximately half a million jobs and over US\$28 billion in revenue were created in the green economy from 2006 to 2007 alone.

Purpose

The intention of the five SACOSS Principles Papers is to influence debate and policy development in the lead up to the South Australian state election in March 2010. The purpose of this particular Principles Paper is to identify and highlight the opportunities for the South Australian Government in the area of employment, education and training, in a time of economic downturn. The main drivers of the paper are the global financial crisis (GFC) and the probable effects of the projected economic downturn on the human and social infrastructure of South Australia, as well as the clear need to address historical disparities in various data around employment, education and training in South Australia compared to other states and territories. Inherent in this economic downturn is an opportunity to prepare for future prosperity and sustainability, through the provision of social infrastructure that will equip current and future workers for the industries of tomorrow.

Introduction

The Global Financial Crisis

The Global Financial Crisis (or GFC) owes its emergence to US financial practices. As the US economy emerged from the bust of the 'dot com' bubble in the mid 2000s, the US Federal Reserve backed 'sub-prime' lending to many Americans for home buying. As honeymoon periods (that is, initial periods of low interest repayments) ended and financial reality hit sub-prime mortgagees, the housing bubble burst, and this has had significant knock-on effects in the US and around the world.

The sub-prime crisis led to the GFC through what can be put in layperson's terms as the trade in debt. Little understood by central bankers and traditional economists, the global market in complex financial products left financial institutions and ultimately economies at severe risk. Singled out by Michael Porter, National Research Director for the Committee for Economic Development of Australia (CEDA), are credit default swaps, or CDS. CDS can be seen as 'a form of insurance that allows for the transfer of credit risk without the transfer of an underlying asset.' (Porter, 2009) Largely allowed because the word 'swap' helped their proponents avoid regulation, CDS grew to eclipse world GDP in value. Thus when the housing sector fell in the US, the resulting domino effect led to the collapse of many banks and other financial institutions in the US and across Europe.

Impact of the GFC in Australia and South Australia

As numerous economists and state and federal politicians have made abundantly clear, the Australian economy is not immune to the adverse effects of the GFC (although our banking sector is in much better shape than its overseas counterparts, due largely to comparatively strong regulation); however the value of the Australian stock market nonetheless fell by 40% between October 2007 and October 2008. This has led to widespread financial losses, not just to traditional investors but to superannuation funds, one of the most important sources of household wealth for those at or approaching retirement age. The latter has recently led to a marked increase in the number of applications for receipt of age pensions.

More worrying is the likelihood of high unemployment and its associated costs to individuals, the economy and society. Even before figures were released revealing the lowered growth of the Chinese economy, it was feared that around 150,000 (Australian Government, 2008) to 200,000 (Wren, 2008) jobs could be lost in Australia in the next two years. Jobs lost to anywhere near this magnitude will have significant impacts on the Australian skills base and further erode the chances of a swift recovery, and thus a substantive approach is needed to ensure that human capital and human infrastructure are protected, rebuilt and regenerated in the face of the GFC.

In the South Australian context, it is difficult to tell at this stage whether the GFC will have similar effects already felt in states such as NSW, which is technically now in recession. It is hoped that the mining sector may shield the South Australian economy from the worst effects of an economic downturn, although retrenchment in the mining sector in other states may have a knock-on effect if retrenched workers bring their skills to this state, thus lessening the chances of South Australians gaining employment. It is likely that the retail and manufacturing sectors will be among the most adversely affected, and this will mean higher unemployment.

Federal government responses to the GFC

The Australian Government has reacted to the GFC in a number of ways, two of which will be dealt with in more detail here due to their association with this paper. The range of responses can be seen to be attempts to tackle the problems associated with an economic downturn from a number of angles, including both policy and discretionary measures.

Financial counter-cyclical responses¹

In the policy arena, the government has taken some steps towards shoring up the financial industry by direct spending, the guaranteeing of savings and insurance, and through legislative changes to trading rules. In addition, fiscal stimulus measures have been implemented to directly stimulate the economy, measures collectively known as the Economic Security Strategy (ESS). The \$10.4 billion strategy unveiled in December included:

- \$1.5 billion worth of measures to stimulate first home ownership and housing construction through an increase in first home owners' grants (FHOG) and savings bonuses;
- \$4.9 billion in ESS payments to pensioners and carers;
- \$3.9 billion in payments to Family Tax Benefit (FTB) recipients;
- \$187 million to expand the Productivity Places Program for vocational training

It can be seen that these measures are intended to stimulate the economy by providing either direct cash injections into the pockets of recalcitrant consumers or by less directly subsidising industry, as in the case of the FHOG.

The announcement in early February of a \$42 billion National Building and Jobs Plan further commits the federal government to counter-cyclical economic measures, including providing further direct payments to eligible households and individuals, investment tax breaks to businesses, and a range of funding for forms of infrastructure.

The other counter-cyclical response: social capital and physical infrastructure

In addition to the counter-cyclical responses outlined above, which aim to boost consumer spending in order to boost economic output, the federal government also announced in November additional funding to local governments for physical and cultural infrastructure. Intended to boost industry, an additional \$300 million has been made available to local governments through the Regional and Local Community Infrastructure Program (RLCIP) — \$250 million of which is allocated, the remaining \$50 million to be tendered for. This funding is available for a range of local projects, including:

- Social and cultural infrastructure (community centres, parks and gardens etc)
- Recreation facilities (sports grounds/courts, playgrounds etc)
- Tourism infrastructure (memorial halls, information centres, public attractions etc)
- Children, youth and seniors facilities (youth, playgroup and senior citizens' centres etc)
- Access facilities (disabled access, jetties, public transport hubs etc)
- Environmental initiatives (water treatment, recycling, catchment infrastructure etc) (Australian Government, 2008a)

¹ Counter-cyclical stimulus measures included here are up to February 2009. Subsequent announcements may not have been included.

The stated aims of the additional RLCIP funding are to 'stimulate growth and economic activity across Australia and support national productivity and community well-being' (Australian Government, 2008a). While this strategy shares similarities with the 'New Deal' economic strategies of the past, it also incorporates elements of cultural infrastructure spending that is to be commended.

Through the February Nation Building and Jobs Plan, the federal government has also earmarked funding for:

- Free ceiling insulation for around 2.7 million homes
- The building of new, or upgrade of existing buildings in all Australian schools
- Building over 20,000 social and defence homes
- The national 'black spot' roads program, and \$650 million for local community infrastructure and the maintenance of national highways (Prime Minister of Australia, 2009)

Taken together, the counter-cyclical funding provided through federal funding streams may well have a positive effect on the Australian and consequently South Australian economies. Infrastructure elements of the most recent South Australian State Budget, if implemented, may also serve to stimulate the construction industry and vicariously the economy as a whole through consumer spending.

What is lacking in the RLCIP and is underdeveloped in both the ESS and the Nation Building and Jobs Plan is the 'human', or 'social', infrastructure element. Perhaps more succinctly, while current federal and state-based spending initiatives enclose the spheres of social capital and physical infrastructure, there is a further need to invest in 'human' capital, an investment that would best be implemented through investment in social infrastructure aimed at skills and training. The following section explains some of these key concepts and their unarguable importance to government responses to the economic downturn.

Social infrastructure and human capital: employment, education and training

'Social' (or 'human') infrastructure and 'human capital' are different in their definitive application but represent two sides of the same coin: investment in people. Governments make decisions on the building of roads and of bridges on a regular basis, as well as the regulation of financial and stock markets. What is not often considered is the human infrastructure required to maintain and build upon current physical and economic structures within our society.

Human capital can be seen simply as the accrual of skills and habits that improve the life of an individual. In sum, it represents a focus on capabilities (Sen, 1999). Indeed, economists see investment in human capital as being investment in the health, education and training of an individual, and 'they are called human capital because people cannot be separated from their knowledge, skills, health, or values in the way they can be separated from their financial and physical assets.' (Becker, 2008). This view is particularly important given that the sum and spread of human capital is equal to a vital contribution to the economic capital of the nation.

Human capital thinking has undergone its own theoretical change, just as social and economic theories have changed in the same period. Emerging first and foremost in the education field, it has gone through three main phases. Initially, it was seen as an economic imperative that could be corrected by government in response to market failure. This gave way to a second wave of thinking which lamented the 'subordination' of morals, values and social justice issues to predominantly economic interpretations of human capital. Through the National Reform Agenda (NRA), to human capital has been added the element of social justice issues and the idea that programmatic infrastructure, to ensure the absence of child poverty, and other social goods and supports are necessary to the accumulation of a holistic form of human capital (Smyth, 2007).

Social or human infrastructure can be seen in two different ways. When economists and politicians speak of social infrastructure, they are often making implicit references to the physical infrastructure that helps in the provision of human services. In a different sense, however, social infrastructure should be seen to refer to the services and programs themselves, services that protect and support the accumulation of human capital and that include health, education and nutrition (Jimenez, 1994). In sum, social infrastructure straddles the conceptual line between these two, being a mix of physical – or 'hard' – and 'soft' infrastructure, including:

- Health
- Education
- Arts and culture
- Sport and recreation
- Housing
- Employment and training
- Public safety
- Emergency services
- Public and community transport (Casey, 2005)

What is immediately noticeable about these forms of social infrastructure is their interrelationship – some are physical (eg housing) and pay a social or community dividend, while others are social (eg education), yet require physical infrastructure. In this way, the easily quantified physical infrastructure and the not-so-easily quantified social infrastructure are mutually beneficial. More accurately, physical infrastructure and social infrastructure are inextricably linked in a broader social infrastructure concept, as well as through the notion of social inclusion, or social participation. Both hard physical infrastructure and soft social infrastructure ultimately serve the same purpose – building social capital and increasing social participation.

If we accept the importance of human capital for both individuals and society and the economy as a whole, then it follows that the social infrastructure necessary for the creation, accumulation, and retention of human capital is also socially and economically necessary. While this paper has as its focus the area of employment, education and training, there will be little in the way of distinction between the social infrastructure of training and education, and the physical infrastructure which requires skilled labour.

Human capital in South Australia

Employment, education and training are three of the most important determinants of a person's lifelong health and wellbeing. Education (including training) is arguably the most important determinant of them all, and represents the epitome of the creation and accumulation of human capital.

Education increases our opportunities for choice of occupation and for income and job security, and also equips us with the skills and ability to control many aspects of our lives – key factors that influence wellbeing throughout the life course. (Hetzl et al, 2004)

While there is good reason for not limiting the conceptual scope of human capital and social infrastructure, it is nevertheless useful in terms of policy responses to the GFC to view them through the lens of employment, education and training. The main reasons for this are twofold: the need to ameliorate the worst effects of the GFC on the South Australian economy from an economic standpoint, and the strong correlation between human capital and social justice and equity. It is not only the GFC with which the state government has to grapple in these terms, but entrenched social and economic characteristics of the South Australian population, specifically:

- Lower workforce participation rates for males, females and aggregate than the Australian average;
- Consistently higher levels of unemployment than Australia as a whole;
- Higher dependency on federal government payments as the main source of income;
- 31.3% of all employed persons in SA are employed part-time (that is, working between 1 and 34 hours per week): 16.2% of males and nearly half of all employed females (49.4%) (ABS, 2008);
- Lower numbers of persons with non-school qualifications.

In addition, South Australia has an older population than Australia as a whole, and this represents a further barrier to participation in a more service orientated, or 'green tech' employment landscape. All of these factors mean that in order to achieve a range of targets in the government's *South Australia's Strategic Plan* (SASP), significant investment is required in education and training in South Australia.

Given the ageing of the South Australian population and the need to achieve sustainability in terms of human capital in order to progress, attention should also be paid to the issue of the retention of young people. South Australia has traditionally lost many young people – including valuable university graduates – to the eastern states, due to a general lack of opportunities in this state. In order to create a sustainable economy, this 'brain drain' must be arrested through the provision of attractive opportunities for young people, and these opportunities can be twofold. By providing vocational education linked to real employment outcomes, the VET system can be utilised to retain those for whom such career paths are attractive. By changing the focus of the economy – even slightly – to incorporate higher-level positions in cutting-edge industries such as energy efficiency and urban design, as well as other service industries, the drain of graduates in all disciplines can be arrested.

Recent work by the South Australian Government in the creation of the Training and Skills Commission (TaSC) and investment in workforce planning through the five year 'Skills and Workforce Development Plan for South Australia' is a welcome commitment to viewing the education, training and workforce landscape in a new light. It is hoped that the outcomes from the skills planning process will inform future directions for skills and training in this state, while maintaining the flexibility necessary to ensure that plans can respond to constant change in terms of social and economic conditions. With adequate informed input through the Industry Skills Boards, the skills plan has the potential to deal with emerging issues in the area of training and workforce development, although there is a need for the work of the TaSC to dovetail with that of the Economic Development Board (EDB) in planning for South Australia's future.

The recently released *Economic Statement* (EDB, 2009) predicts (according to pre-GFC economic modelling) that an additional 337,000 accredited qualifications will be needed in South Australia over the next seven years, including university and VET qualifications. Furthermore, it is predicted that the main areas of shortfall will be in Bachelor degree or higher level education, as well as Certificate III. It will be necessary to ensure these needs are addressed in order to prepare for the economic recovery. The EDB recommends that:

the potential shortfall of VET funding and higher education places over the next decade and the opportunity to increase the rate of training in the present downturn should be pursued vigorously with the Commonwealth Government. (EDB, 2009, p. 74)

There is little doubt that this investment must be based on best practice models, and be sufficiently targeted to emerging industries. More importantly, investment in human capital must be cognisant of prerequisite needs in terms of social infrastructure.

Investment in social infrastructure

It is difficult to disagree with the EDB: government investment in human capital and human infrastructure in South Australia is vital, given the convergent themes of historical workforce participation, qualification, and unemployment data, and the likelihood of higher levels of unemployment precipitated by the GFC. In the immediate term, South Australia requires a well-resourced approach to skilling, re-skilling and 'up-skilling' in order to emerge from the likely recession with greater rapidity and with greater prospects for the future. Without an adequate skill set, many of the South Australians who become unemployed in the short to medium term may remain so into the foreseeable future.

Perhaps more worrying are the prospects for the already long-term unemployed: Wren (2008) cites research which shows that unemployed people who lose contact with the job market have less chance of gaining employment in the future and that these chances diminish over time. There is ample statistical evidence showing that during periods of economic downturn, unemployment rises quickly and diminishes at a much slower rate, thus ultimately harming the prospects of a speedy recovery from recession (Chapman and Kapuscinski, 2000). According to Chapman and Kapuscinski, and Wren, this is because employers tend to avoid the pool of medium-to-long term unemployed during periods of economic recovery due to this lack of contact with the workforce. Additionally, lack of contact with employment, education or training often leads to social exclusion, as well as behaviour detrimental to future contact with the workforce. Herein lies the continuum between employment, education and training and social participation. It is therefore vital that thought be given to this recognised phenomenon in state as well as federal government policy.

It is important that federal funding, through the Productivity Places Program, is augmented by state government investment in the infrastructure needed to ensure the retention and accumulation of human capital in the medium term. Funding for the VET sector needs to be substantially increased, just as physical infrastructure spending begins to take effect, and the two need not be separated conceptually. Indeed, the labour needed to build the physical infrastructure is readily available in South Australia now, and numbers of those available to take part in infrastructure projects are

projected to increase. It is the human capital element that is missing, but the provision of social infrastructure dedicated to education and training can create it.

Funding alone, however, will not solve the issues facing South Australia, and there needs to be some recognition of the barriers to education and training, and a dedicated and realistic approach to ensuring that there is equity of access to all forms of education and training throughout the state. It is unfeasible to continue an approach requiring either onsite training at predominantly metropolitan or regional centre-based TAFEs and other Registered Training Organisations, or internet access. Given South Australia's lower than national average rates of internet connections and use (especially broadband), a different approach must be considered to enable the participation from regional and remote areas of potential students and future workers in any additional education and training opportunities.

Many rural and regional centres have suffered from a number of compounding issues, including the 'brain drain' of youth to major urban centres, changing climatic conditions demanding modified agricultural practices, and ageing populations enduring a lack of many basic services (Grogan and Stead, 2008). There is clear potential for many regional centres to both contribute to – and benefit from – a shift in focus away from manufacturing and even from broad-acre agriculture in increasingly arid areas. By creating the necessary social infrastructure throughout South Australia and by devolving economic activity (in the form of green industries) to the regions, local communities will benefit through an increase in economic and social activity, and the drain of young and productive members from rural and regional communities will be stemmed.

Much of the additional funding should be targeted according to the analysis and results forthcoming from the review of the 'SA Works' program, including strategic recommendations regarding the appropriateness of associated projects; their applicability in a variety of social, geographical and economic contexts; and an increased focus on alternative skills and the green economy through the creation of green infrastructure. Providing a review based on thorough research will enable SA Works to be better targeted towards disadvantaged groups and outcomes. In this respect, reviews of the TAFE system in South Australia should also be seen as an opportunity to ensure that green jobs and the 'green-skilling' of existing occupations and training modules are assigned adequate importance in keeping with the emerging importance of the green economy. More broadly, an efficient and effective SA Works program will help to aid in the creation of human and social capital by providing a form of social infrastructure, particularly in regional South Australia through 'SA Works in the Regions'.

When considering the provision of social infrastructure it is important to consider the real needs of South Australian society and the economy. It is clear that manufacturing does not represent the core of the economy, despite the importance placed on it in policy. While 40 years ago manufacturing represented 28.3% of the South Australian workforce, in 2008 this had dropped to 12.5% — dwarfed by community and business services (20.1%) and on par with finance and property (13.1%) (EDB, 2009). The exponential growth in the wider services sector has led to it contributing 58.1% of gross value added shares in 2007-08 (EDB, 2009). The importance of the broad services industry to the economy renders it vital in preparing the economy for the future.

Services across many sectors have a role in the future of South Australia's economy, and many of them can help not only in creating the social infrastructure necessary for growth, but also assisting to create an environment in which policymakers and the public have a positive perception of alternative economic directions. If viewed through the lens of the possibilities inherent in a less carbon-intensive economy, the role of the services industry can become one of creating and augmenting a role within the social infrastructure of the state to enable a shift in social and fiscal focus. More specifically, the business and community services industry can not only drive the move to a 'green' economy, but 'sell' it to policymakers, interest groups, and the public alike.

One other important means of ensuring the potential of human capital in South Australia would be realised through adequate resourcing of the non-government – as well as the government –

training sectors. Much valuable training is provided in addition to accredited training. This non-accredited training potentially keeps people connected to job information and can motivate disengaged jobseekers, thus maintaining social participation. The Health and Community Services Sector already accounts for an important proportion of the training provided in South Australia, and additional funding for the work of this sector would ensure the appropriate application of training in local settings. The Health and Community Services Sector represents much more than just another conduit for the provision of education and training, however. Human capital must also be recognised through additional funding for the range of services this sector provides, as unemployment rises and individuals and households find it increasingly difficult to cope with the worst effects of the GFC.

In this sense, the Health and Community Services Sector represents social infrastructure in its classic form. The services provided by the sector help to link people — not just to education, training and jobs, but to a range of services and a range of other people. This sector is best placed to utilise its experience in service provision, and connections with formal and informal training providers, to act as the link between government, industry, and people in the creation of social infrastructure and social participation. In fact, given the acknowledged importance of removing barriers to education, training, and workforce participation, the Health and Community Services Sector can in many regards show the way in holistic responses to the wide range of issues around workforce participation and social participation.

The green economy

One of the major looming social, environmental and economic issues for Australia is the move to a less carbon-intensive 'green' economy. As carbon emissions targets are imminent, South Australia's economic structure will change, even if only slightly, and an opportunity exists to take part in the 'greening' of the South Australian economy through tapping into the low workforce participation rates and forecasted higher employment.

The recent 'Green Gold Rush' report (ACF and ACTU, 2008) identifies six main industries which have the potential to provide a sustainable future for the Australian economy, and it is significant that South Australia has already positioned itself as a leader in some of these fields:

- Renewable energy
- Energy efficiency
- Sustainable water systems
- Biomaterials
- Green buildings
- Waste and recycling

Through both state and local government environmental and economic foresight, South Australia has implemented a number of ongoing projects and infrastructure that represent both best practice and national leadership in sustainability:

Renewable energy: South Australia leads Australia in the generation of wind energy, and now sources around 20% of its power from renewable sources.

Sustainable water systems: The wetlands created by Salisbury Council in the north of Adelaide represent a sustainable form of water conservation.

Waste and recycling: South Australia leads Australia and much of the developed world in its rate of recycling, partly due to its Container Deposit Legislation, and partly due to the zero waste target administered by Zero Waste SA.

In order to build on these successes and to ramp up efforts to build a green economy and green skills in South Australia, more needs to be done in the acknowledgement of best practice models. The Salisbury Wetlands serve as an example of best practice in the area of sustainable water policy. This project has been widely lauded across the world, and better recognition within the state should be shown through greater financial and in-kind support for similar projects. Particularly given South Australia's lack of water security, this should be seen as vital for social and economic development, as well as providing expert education and training opportunities for those involved. Building on best practice models need not be strictly limited to physical infrastructure, but can and should extend to incorporate a 'renewable workforce' approach, where existing relevant skills are identified and built on before atrophy beyond an acceptable cost-benefit recovery ratio. This means not only direct retraining provision, but support for a range of social determinants that help people into new industries.

Additionally, there are a number of current initiatives, both state and federal, that will assist by providing additional funding and policy impetus for greater sustainability:

1. *The Residential Energy Efficiency Scheme (REES), administered by the SA Department for Transport, Energy and Infrastructure (DTEI)*

REES has only recently been rolled out and places the onus of providing energy efficiency audits on energy retailers. There is the potential to increase government spending on green

jobs and energy efficiency in this area by providing energy efficiency audits for all housing over a certain age, and to provide free or heavily subsidised energy efficiency measures to low to middle income households. This would ensure greenhouse emissions targets (state and federal) are met while providing training and employment for retrenched workers and long term unemployed.

2. *The recently announced funding to provide ceiling insulation for 2.7 million Australian homes*

The state government should, possibly through REES, invest further in this measure to ensure that all South Australian homes have sufficient and appropriate insulation.

3. *The funding for an increase in social and defence housing stocks*

SACOSS has been calling for additional public and social housing stocks, and this measure represents a move in the right direction. In terms of the green economy, there is scope for making these new homes standards of excellence in energy and water efficiency, and the tendering process should include provisions for quotas for at-risk groups on such projects.

Additionally, the SASP includes targets that give impetus to state government funding in the area of green infrastructure and the creation of more energy efficient housing – public and private – in South Australia. For example, *Objective 3: Attaining Sustainability*, has as two of its targets the improvement of energy efficiency in government buildings by 25%; and in private dwellings by 10%. While these targets may in some ways seem difficult to reach, they can be surpassed by a short to long term investment in ‘green jobs’ and the training required to create them.

There are two main elements to the creation of a green economy and thus green jobs. The first is investment in innovation in the renewable energy sector and, where appropriate, large scale production of the necessary infrastructure. Given the focus of the government on renewable energy, it is feasible that it should allow itself to spend into deficit on the green economy in order to gear the state to take advantage of the economic upturn.

The second way the government can facilitate the move to a green economy and a green workforce is through the targeted provision of training and workforce development that would assist in the venture. This would feasibly be done through the VET system as it stands – that is, through TAFE and other institutions, as well as through on-the-job training in green industries. Green or sustainable modules should also be introduced into existing trade qualifications in order to facilitate greater ecological outcomes in the new era of the green economy. In the long term, the higher education sector should be encouraged to offer more undergraduate and eventually postgraduate courses that provide the high level skills needed.

Community-led, equity-based green job models have also shown some early success in the US, and scoping should be undertaken to gauge their potential in the South Australian context. The ‘Oakland Green Jobs Corps’ in California not only teaches valuable skills, but helps to grow the green economy in the US (Kim, 2008). What is important to realise is that green jobs need not be confined to energy, but can assist in the installation of grey water facilities and the cleaning up of environmentally degraded sites, as well as installing environmentally sound insulation and photo-voltaic cells.

The potential for a green economy to foster greater participation in the global economy has also been explored in recent reports, and should be a focus of the South Australian government through its funding streams, as well as the federal funding it administers. A 2003 report showed that more jobs are created per \$ million invested through energy efficiency than through shale oil production, or even solar electric. A similar pattern emerges when comparing direct employment per megawatt-hour of energy produced, with 400-800 jobs created through energy efficiency; 542 for wind energy; and only 116 for existing coal mining and power generation (Passey Jobs Report, cited Girardet, 2003).

In the US, the green economy in 2007 grew at three times the rate of the economy as a whole, representing 9 million jobs and US\$1.04 trillion in revenue, according to a recent report (Bezdek, 2009). Other findings from this report include:

- As many as 37 million jobs may be created in the US green economy by 2030, representing over 17% of all jobs created;
- The majority of professions required for the green economy include electricians and mechanical engineers, as well as other workers from traditional occupations;
- Sub-sectors showing the most growth were solar thermal and photo-voltaics, biofuels and fuel cells;
- Approximately half a million additional jobs and over US\$28 billion in revenue were created from 2006 to 2007 alone.

It is not just the creation of a green economy and green jobs that are important for the future of employment, education and training in South Australia, however. In the training and skills arena there is the added impetus of greening existing industries and consequently existing jobs and trades. By the creation and implementation of both holistic and task-specific green skills, templates can be created for the wide rollout of 'green skilling', as opposed to 'up-skilling'. In this way, existing trades such as electrical, plumbing and gas-fitting, and refrigeration (to name just a few) can become more amenable to a change to a more carbon-neutral and ecologically sound economy.

Indeed, one of the main planks of a transition between the current economy and a green economy will be firmly within federal and state/territory control. In its June 2008 report (Hatfield-Dodds et al, 2008), the CSIRO noted that three of the five key elements to responding to climate change through the greening of the economy would be:

- Incentives and policy settings for environmental performance;
- Green skills and training; and
- The promotion of a stronger innovation culture.

All three of these elements are present in South Australia now, and by building on these strengths we can lead the nation and the world in the green economy. It is also significant that past Adelaide Thinkers in Residence have flagged the importance of these factors in their final papers (Girardet, 2003; Mulgan, 2008). In sum, a new, green, South Australian economy can build on the existing knowledge base to create employment and improve education and training outcomes through infrastructure spending.

Shifting focus: towards a human capital approach

Numerous opportunities exist in South Australia for investment in the physical infrastructure needed to compete more effectively in the world economy, as well as to enable greater social participation. Water security, transport, energy, telecommunications and urban and regional renewal projects all top the wish list for traditional infrastructure projects, and there is no need to conceptually separate investment in the physical from investment in human infrastructure. What is called for is an investment in both – a new form of social stimulus that incorporates the traditional and the contemporary – investment in a new infrastructure program that has human infrastructure as one of its main guiding principles.

In its 2009-10 State Budget Submission and other work (SACOSS, 2008; Grogan and Stead, 2008) SACOSS has consistently called for additional infrastructure funding for rural and regional South Australia, as well as for a more equitable and integrated public transport system. In the case of regional development, research undertaken by SACOSS and stakeholder consultations point to the following issues regarding regional communities:

- Changing climatic and economic conditions rendering traditional occupations untenable; and
- A lack of physical, social and human infrastructure to cope with ageing populations and increasing unemployment, and to enable some projects to reach full potential. (Grogan and Stead, 2008)

The situation in regional South Australia is indicative of the need to invest in infrastructure in all its forms.

It is generally recognised that jobs alone do not an economy make, let alone a society. In this regard, it is necessary to look to the infrastructure necessary for greater participation in a green economy, including:

- Housing: affordable, energy efficient owner-occupied and rental housing, close to work and social infrastructure;
- Social infrastructure: community centres, sports facilities, libraries and cultural centres;
- Transport: integrated, affordable and sustainable public transport system that extends beyond the urban growth boundaries and connects communities in a real way;
- Water security: best practice models such as the Salisbury Wetlands need to be adequately acknowledged and similar projects rolled out across the state where appropriate. Water security measures need to be energy efficient;
- Green buildings: new industry means new buildings, and by ensuring these buildings are green accredited, South Australia can ensure energy efficiency and sustainability. Additionally, existing buildings can be retrofitted to reach targets, or rebuilt where necessary.

In recent times, there has been a shift in urban planning thinking towards planned, integrated communities. In the common lexicon, a number of different types of these have been grouped together under the umbrella term 'Transport Oriented Development', or TOD. TODs are communities built with public transport systems in mind, and are often built along existing rail networks. In South Australia, a number of sites for TODs have been identified, both by the state government and individual local governments. If properly utilised, TODs have the potential to provide all the elements of a sustainable community outlined above. Targets for both affordable rental housing and energy efficiency need to be incorporated into existing planning procedures for TODs.

In the context of building human capital, it is important both to facilitate economic recovery and to see physical infrastructure as integral to this, with infrastructure projects built according to stringent energy and water efficiency guidelines. Equally importantly, quotas need to be put in place to ensure that disadvantaged jobseekers are provided with training and skills development opportunities to contribute to society through their work on strategic infrastructure, as well as building communities in the form of TODs.

Given the evidence in favour of building human infrastructure to aid in the creation of additional human capital, and the prospects of recovery through the green economy, a cross-sector policy approach is essential. With fiscal and hierarchical support from the Departments of Premier and Cabinet and Treasury and Finance, all government agencies and statutory bodies need to work with civil society to apply thought and resources to achieve employment, education and training outcomes through spending on human and physical infrastructure. One of the main imperatives will be to make good use of federal funds, while 'topping up' where necessary from state streams. Most importantly, the principles of equity and social participation must drive government responses to economic recovery and economic development.

Conclusion

There is ample evidence around the social and economic benefits of ensuring that human capital is not diminished by lack of engagement with the workforce or the education and training sector. Given relevant historical South Australian data around education and workforce participation, it is particularly important that the state government does not allow the situation to deteriorate during the current and projected economic downturn. This requires counter-cyclical funding for the social infrastructure that will ensure this does not occur.

Ultimately, industry must help facilitate the process of utilising fiscal stimuli to ensure the accumulation of human capital, and that the global future of industry is in green jobs. The South Australian Government can then seize the opportunities afforded by an increase in unemployment, and federal government commitments, in a practical policy and fiscal sense.

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