

ESD Strategies at the Local Government Level: Case Study of the City of Newcastle

Darren McKay

School of Policy, The University of Newcastle
Email: ecdhm@cc.newcastle.edu.au

Ray Rauscher

School of Applied Sciences, The University of Newcastle
Email: ray.r@idl.net.au

ABSTRACT

Over the last decade there has been increasing pressure on Local Governments around the world to accommodate principles of Ecologically Sustainable Development (ESD) within their urban policies. In Australia much of this pressure on councils has derived from higher tiers of government. This paper explores the implementation of ESD at the local level, in particular with regard to the broader vision that emanated from the Commonwealth's National Strategy on Ecologically Sustainable Development (NSES). Using a case study of Newcastle City, the paper demonstrates the folly in requiring unsupported councils to implement ESD strategies, no matter how enthusiastic these councils may be. Though Newcastle City gained prominence in the mid 1990s for its spirited pursuit of comprehensive ESD strategies, including industrial ecology ambitions, these unfortunately have fallen short of expectations. Given budgetary constraints, Newcastle Council reliance on an extensive partnership approach to implement its ESD strategies proved difficult to maintain over the longer term. The paper concludes that local government requires stronger support from higher tiers of government and a better revenue base if it is to be successful in delivering comprehensive ESD strategies. This is an important political economy issue in light of the state's and in particular the Commonwealth government's tentative commitment to sustainable development.

INTRODUCTION

In 1992 the Australian Commonwealth government released the National Strategy on Ecologically Sustainable Development (NSES) (Commonwealth 1992). This document placed the nation at the environmental forefront of ecologically sustainable development (ESD) programs globally. By 1993 this Strategy had been adopted by all tiers of government in Australia through inter-government agreements. Consequently, the New South Wales (NSW) state government (herein referred to as the State) legislated through the Local Government Act 1993 (NSW 1993) for local councils to develop integrated urban strategies that incorporated environmental, social, and economic factors.

Internationally the United Nations document Agenda 21 (UN 1992a) (from the UN's Earth Summit at Rio de Janeiro) outlined ESD strategies, defining the ESD concept as "the balance of social, economic and environmental factors in development so as not to impact the next generation". Local Agenda 21 (LA21) (UN 1993) was formulated from Chapter 28 of Agenda 21 and requested ESD strategies be implemented through local government councils. The concept of thinking globally and acting locally was also advocated through a series of additional international agreements beyond LA21, including: Kyoto Protocol (UN 1997) and Framework Convention on Climate Change (FCCC) (UN 1992b).

Writers, including Albrecht & Gutberlet (2000), have been critical of the devolution of ESD planning

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responsibility, arguing that local government has least resources to implement ESD policies. In the UK, Patton & Worthington (1996) explored the lack of progress in local government implementing LA21 strategies. In Australia, Wittaker (1997) argued that councils mostly implement minor aspects of ESD strategies first, with little attention given to the major ESD issues. Also in Australia, Croft (Croft 2000) outlines the importance of ESD being a foundation principle in development of urban policies. To gain an appreciation of the issues involved in local government implementation of ESD strategies, it is important to review case studies of councils that have been prominent participants of this approach. Newcastle City Council has been chosen as a case study for this paper due to its strong advocacy of ESD principles and because it represents a city in transition from a strong industrial base to a knowledge and service base economy.

Newcastle City is one of five local government areas in the Lower Hunter (others being Lake Macquarie, Cessnock, Maitland and Port Stephens). The Lower Hunter is in turn part of the Greater Metropolitan Region (GMR) adopted by NSW planning, and includes the Lower Hunter, Sydney Metropolitan Area, Central Coast and Illawarra regions. While most councils emphasise the environmental aspect of ESD planning, Newcastle Council in the late 1990s attempted the more difficult task of promoting all three aspects of ESD philosophy - social, economic and environmental. In particular the Council had hoped to utilise ESD principles to aid the City's economic transition by promoting green industries, small business and a sustainable urban form. Therefore Newcastle provides a unique case study of a council that was enthusiastic and committed to implementing a comprehensive ESD strategy as early as 1992, the year of Agenda 21, FCCC and the Commonwealth's NSESD.

Many may be surprised to learn that in 1997 Newcastle Council hosted the Global Local Government Environment Convention (known as Pathways to Sustainability), a follow up to the Rio Earth Summit of 1992. This Newcastle Convention encouraged Council to produce its Pathways Initiative – Steps Towards Sustainability in Newcastle and the Hunter Region (NCC 1997a). This document marked the handing over of the Pathways to Sustainability program to the Hunter Regional Organisation of Councils (HROC) to progress as a regional ESD initiative. As a result of these initiatives the Council received praise for its efforts on ESD from several environmental commentators, the most prominent being David Suzuki (Albrecht and Gutberlet 2000).

This paper firstly explores the background to the devolution of ESD to local government, including discussion of the influence of international agreements, as well as Commonwealth and State government legislation. Secondly, the paper outlines Newcastle Council's initiatives on ESD, in particular its ambitious programs of the late 1990s. Section three critiques Council's performance in planning and implementing its ESD program, noting some outcomes failed to achieve expectations. Conclusions as derived from the Newcastle case study, in the final section, are aimed at instructing policy for improved implementation of ESD at the local level.

BACKGROUND TO ESD POLICY MAKING

In 1987 a report of the World Commission on Environment and Development (WCED) entitled *Our Common Future* (UN 1987) (also called the Brundtland Report) had a major impact on international environmental policy. This Report made it clear that the current form of economic development was not sustainable and that an alternative method that acknowledged ecological limits was needed. It would become a catalyst for international treaties, conventions and national strategies that accommodated environmental sustainability. This process eventually led to the United Nations Earth Summit in 1992, Agenda 21 and LA21 as referred to in the above introduction. Ten years later the United Nations reviewed the progress of Agenda 21 and adopted the Political Declaration and Plan of

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Implementation (UN 2002) at the World Summit on Sustainable Development, Johannesburg.

The international environmental movement in the late 1980s and early 1990s accelerated action within Australia, and contributed to the Commonwealth Government commissioning working groups to determine how ESD could be implemented locally. This led to the completion of the National Strategy for Ecologically Sustainable Development (NSES) in 1992. The NSES defined ESD as “conserving and enhancing the community’s resources so that ecological processes, on which life depends, are maintained; and, the total quality of life, now and in the future, can be increased”. The NSES also identified means to promote sustainability, including for example: required industrial adjustments; changes to transport; urban form guidelines; and, recycling methods. Finally, the NSES advocated the discretionary use of subsidies and taxes, and improved intergovernmental coordination as methods to achieve ESD.

The Commonwealth signed intergovernmental agreements in order to implement the NSES and to ensure its presence in all policy areas and tiers of government. Unfortunately, much of the agenda outlined in the NSES became watered down in public policy by the mid 1990s (Albrecht 1994). Though ESD was to gain a foothold in many government public policy documents, it would not have the teeth anticipated in the National Strategy of 1992. In particular, little was done on the industrial ecology and transport areas of the strategy. Finally, the use of taxes and subsidies to influence economic structures in accommodating sustainability guidelines were soon pushed off the national agenda, or sidelined. The debate surrounding the eventual adopting of the national goods and services tax (GST) was one of the many distractions.

By the mid 1990s the NSES had retreated into a handful of land use programs. The one program that offered the best prospects of accommodating ESD approaches was the Commonwealth and States’ Better Cities Program under the Department of Housing and Regional Development (DHRD) (DHRD 1994) within the Keating Government. This program however was discontinued in 1996, and was followed by the Commonwealth’s refusal to sign other global environmental agreements including Kyoto (UN 1997). At the State level, ESD continued to be advocated through land use and natural resource policies. These became expressed in State planning policy through land use strategies (i.e. urban consolidation), natural resource planning (i.e. catchment management plans) and social equity policy making (i.e. social plans). Some examples of State ESD based documents included NSW State of the Environment (NSW 2002), Catchment Management Planning (NSW 2003a) and Coastal Protection (NSW 2003b).

As it eventuated, new thinking in urban planning in the late 1980s and 1990s was converging with the principles of ESD. This made it easier to connect the sequential (though often overlapping) schools of thought on urban consolidation, new urbanism and smart growth with ESD. Urban consolidation was to encourage higher density living, closer to inner cities. New urbanism emphasised building neighbourhoods with a diversity of residential, commercial and light industrial uses in close proximity. Smart growth presented a realisation (especially in the US) that urban sprawl was not efficient and required planning alternatives. In NSW a number of State metropolitan planning documents including Sydney’s Future (Planning NSW 1993), Cities for the 21st Century (Planning NSW 1995) and Shaping Our Cities (Planning NSW 1998) progressively marketed themselves as incorporating an ESD agenda. The theme of these documents was to advocate compact public transport orientated cities.

In the 1990’s the State increased pressure on local government to adopt strategies that supported the ESD approach, in particular consolidation through infill development and higher greenfield densities. The Local Government Act 1993 (NSW 1993) introduced guidelines for councils to incorporate

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biodiversity principles into their planning and management practices. In terms of catchment planning the State required councils to map and protect local rivers, flood plains, wetlands and threatened species. In NSW the Metropolitan Residential Development (State Environment Planning Policy 53) (SEPP 53) (Planning NSW 1997) policy required all councils to adopt residential strategies to repopulate inner cities and curb urban sprawl. This SEPP included the need for councils to produce new Local Environmental Plans (LEPs) that would direct their development approval processes to facilitate the State strategy. The State also adopted the Design Quality of Residential Flat Development (SEPP 65) (Planning NSW 2001) policy to provide greater design guidance for councils in considering higher density development proposals.

In summary the Commonwealth and State governments withdrew from the original national ESD vision in the 1990s, and allowed the ESD concept to be mostly confined to selected land use and natural resource planning policies. The responsibility, however, for implementation of these policies was increasingly devolved to local government through Commonwealth and State legislation regarding development consent procedures. It is within this context that an ambitious Newcastle Council attempted to implement a comprehensive ESD strategy, accepting the international challenges of LA21 more seriously than most local governments. Council pursued strategies including: industrial ecology; recycling; small business development; community housing; and, sustainable energy. This experiment in the mid to late 1990s was facilitated by changes in the political composition of Newcastle Council.

NEWCASTLE'S ESD INITIATIVES

The Local Government Area (LGA) of Newcastle has a population of 137,307 (ABS 2001) that when combined with the adjoining LGA of Lake Macquarie City (177,619) (ABS 2001) establishes a metropolitan population of 314,926. Newcastle suffered problems of urban sprawl, inner city decay and auto dependency throughout the 1960s-1980s. Its economy was traditionally based around industry, mining and energy generation, and experienced slowdown in the 1990s. Newcastle Council programs that aimed at addressing the Hunter regions shortcomings included: Newcastle Urban Strategy (NUS) (NCC 1998), Newcastle Economic Development Strategy (NEDS) (NCC 2000a), Newcastle Social Plan 2000-2005 (NSP) (NCC 2000b), Newcastle Local Environment Plan (NLEP) 2003 (NCC 2003a,) and the Newcastle Environmental Management Plan (NEMP) (NCC 2003b). The work at Newcastle Council during the mid 1990s on Pathways to Sustainability (NCC 1997a) provided the background to these later documents.

From 1995-1999 Newcastle was dominated by the Australian Labor Party and the Australian Greens Party councillors, with the Greens headed by Cr. John Sutton. The then Lord Mayor Greg Heys could be defined as 'anti-smokestack' in his thinking and interested in industrial ecology strategies. The announcement that the Newcastle steel works would close in the late 1990s meant the time was ripe to map out new strategies for a more sustainable future for the region. Lord Mayor Heys was a strong advocate of the ESD movement, and travelled to the UN Habitat Conference in Istanbul in 1997. At the conference Heys was able to report on Newcastle Council's promotion of ESD strategies, in particular in helping the City adjust to the closure of its steelworks. His later paper (Heys 1998) presented at a regional science conference in Wellington NZ, demonstrated a belief that ESD programs could be used to promote local economic development.

An important ESD program within Newcastle Council was the completion of the Newcastle Urban Strategy (NUS) (NCC 1998). The Strategy was originally initiated by Lord Mayor McNaughton (1987-95) in the early 1990s in response to State government legislative requirements. This Strategy was seen as a mechanism to revitalise Newcastle's floundering inner city by promoting development in the

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City's CBD. Lord Mayor Heys inherited the completion of this Strategy upon election in 1995, where he more comprehensively integrated the ESD principles of new urbanism into the Strategy. The plan was adjusted to promote a multi nodal metropolitan structure, incorporating an urban hierarchy designed to improve accessibility of people to jobs, services and transport.

The broad plan of the urban strategy was to facilitate inner city development, while simultaneously revitalising established suburban commercial centres. Urban dispersal would be slowed to improve infrastructure efficiency and promote public transit. The Strategy was implemented through zoning adjustments in the Newcastle LEP. Inner city rejuvenation was also aided by the Building Better Cities (BBC) project under the Honeysuckle Development Corporation (HDC). The Corporation was to develop disused public land on Newcastle Harbour foreshore and was jointly funded by the Commonwealth and State governments. The Council also aimed to improve its coordination with the State and Commonwealth governments in infrastructure, land use and transport planning.

Apart from utilising land use planning to achieve longer term ESD outcomes, the Heys' council also pursued more direct economic, social and environmental strategies. Its approach was to establish strategic partnerships with government departments, agencies, industry and groups to implement its programs. Within Council's social program Council considered issues of youth unemployment and housing affordability. The Council sought to organise assistance under youth apprenticeships and building projects containing a percentage of affordable housing. Funding was provided by the Commonwealth's BBC program for demonstration projects with sustainable designs and for those projects that offered community housing benefits. Projects included sites in the inner suburbs of Wickham and Hamilton, with revenue from sales financing further expansion of the scheme.

Policy was developed by Newcastle Council on sustainable energy generation and waste management. Council supported renewable energy schemes including Australia's largest wind turbine generator at Kooragang Island. Council also supported attempts to generate electricity through methane landfill gas emissions converted to electricity at the Summer Hill Waste Management Facility. Council encouraged solar energy schemes, including the Newcastle Harbour foreshore historic rail shed project, feeding into the local electricity grid. Council also implemented an energy flood lighting project for thirty seven City sites. Waste minimisation strategies were developed, while a secondary market in recycling waste products was explored. This was part of the Waste Management Facility, where organic waste, tyres, plastics and other household recyclables could be converted into varying commercial products. It was initially envisaged that this project could divert eighty percent of waste back to land fill. Finally, the Council supported the establishment of the Centre for Sustainable Technology (CST) at Newcastle University and the Clean Hunter Centre (CHC).

To the Heys' council the concept of sustainability extended beyond the natural environment to a viable future economic base. Council believed the region's economic base should be diversified away from dependence on a small number of large enterprises such as Broken Hill Propriety (BHP) Ltd. (now Billiton-BHP Ltd.), towards a greater prominence of small and medium sized enterprises (SME's), particularly environmentally friendly establishments. Fortunately, the region had access to State and Commonwealth government funding, particularly post steel works adjustment funding. This enabled Council to consider financing small scale industry and small business programs. Regional funding included the Hunter Advantage (HA) and Newcastle Development Fund (NDF). The partners in this endeavour included, the Hunter Urban and Regional Development Office (HURDO) and the Hunter Economic Development Council (HEDC).

In 1997 Council announced the Newcastle Steel River Project (NSRP) in conjunction with the State

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government. The NSRP was part of BHP-Billiton land on the western side of the City. Council had planned for the site to accommodate firms that would focus on environmental sustainable production. The concept was that one company's waste would become another company's material input. The site was provided with infrastructure and incorporated an accelerated development approval process. The latter meant that if companies fulfilled the broad intentions of this green industry zoning then their development would be fast tracked by Council and the State. It was also hoped the Commonwealth would grant the site free trade status. The NSRP was predicted to generate up to 2000 jobs and was part of a wider objective of Council to work with the HURDO (HURDO 1997) to develop Sustainable Industry Clusters (SICs) for the region.

Newcastle Council also aimed to facilitate small business development by providing a fund for successful local business initiatives. It created a Local Enterprise Facilitation Program (LEFP) (NCC 1997b), which was to help with establishment grants and business coaching. Unlike the State run business enterprise centres the objective was to establish a service that would provide on going mentoring to ensure opportunities for business sustainability. The intention was for Council to target businesses that were environmentally friendly and that were locating in areas of job deficiency. Overall Newcastle Council was at the cutting edge of ESD policy, promoting itself as a model to other councils that were mostly contented to address only the land use aspect of ESD. The establishment of the International Centre in Local Sustainability and Environment (ICLSE) within the University of Newcastle was a further indication of how Council supported ESD policies. Council also adopted a set of Newcastle Sustainable Community Indicators (NSCI) (NCC 2000c) in order to measure the City's progress on ESD. We now turn our attention to critiquing the outcome of Newcastle's ESD program.

Between 2000 and 2005 the inner city of Newcastle had undergone significant resurgence. On the surface this resurgence suggests part success of the Council's ESD programs. Since 2000 there has also been a marked increase in CBD building approvals and capital growth in property prices. The CBD revival appears to have been influenced by ESD programs as well as Council's land use strategies, including shop top housing and the inner city place management programs. The revival appears to have also been influenced by changing social trends and a speculative property boom. Given the cyclical nature of booms and busts there is some doubt whether the 2000-2005 favourable economic conditions are sustainable. Within this context there is merit in more closely examining the Council's ESD planning and implementation as developed from the 1990s.

CRITIQUING ESD PLANNING AND IMPLEMENTATION

While some of the ESD agenda initiated by Newcastle Council in the late 1990s had success, other components floundered or were discontinued. In analysing this, the land use aspects of the ESD strategy can be examined separately from the social and economic components. In respect to land use, the Newcastle Urban Strategy (NUS) has the potential to indirectly influence economic, social and environmental outcomes over the longer term. The NUS incorporates links to other policy documents and is the basis for the Newcastle Local Environmental Plan (NLEP) 2003 (NCC 2003). The new urbanism approach under the NUS to increase building density will benefit social and business interaction and improve the viability and vibrancy of local shops and town centres. This has occurred in the Newcastle CBD and reflects a continued commitment of the present Lord Mayor Tate and his Council to the NUS.

The benefits from the NUS will occur over the longer term, and will be slowed by development complaints from community groups and property speculators withholding land from the market. Another concern is that population densification will create shortfalls in urban infrastructure. In

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particular, inner cities will require upgrading of their aging infrastructure to service increased populations. The latter is a general concern of some towards urban consolidation (Troy 1997), which must be considered in terms of the budgetary implication of the land use aspect of ESD strategy. However, a more specific shortcoming of the NUS is that it is diminished by the lack of a transport strategy for the region, an issue subject to inter-jurisdiction debate.

In regard to Newcastle Council's ESD policy for its own operations, Council was diligent in implementing an organizational strategy to minimise waste production and encourage recycling. Though successful with its own staff, there has unfortunately been unsatisfactory progress from the City as a whole on recycling and waste reduction. The proposed second hand market in waste at Summer Hill has yet to become viable. Further, the initial objective of discarding land fill by 2010 appears unattainable in light of present attempts to expand the volume of land fill from the region accepted at Summer Hill. In regard to energy, the proposed alternate green schemes are yet to progress beyond initial projects at Kooragang Island, while methane generated electricity production is still some distance from implementation.

The ambitious plans of Newcastle Council to encourage sustainable employment and business growth through specific programs have failed to meet expectations. In particular, the Newcastle Steel River Project (NSRP) has fallen well short of targets for employment and business establishments. Various reasons have been cited including the expense of the land, the under developed market for the green enterprises, and poor management. In the aftermath the NSRP has been sold to private interests, who plan to use the land for more conventional industrial uses. Much time was invested in the NSRP, including research of eco industrial parks overseas. This initial work required a long term commitment to the project that some cynics may argue was not in BHP-Billiton's time frame for exiting the region. As the project has fallen far short of expectations the Council has retreated from its initial involvement and promotion of the site.

The attempts by Council to facilitate a small business facilitation program (involving business training and development) also appeared to not meet expectations. There is anecdotal evidence that there were unresolved issues between Council and a state government agency in this area. The Council had successfully negotiated with private backers for funding training and development programs. At times, however, the programs stalled over difficulties in gaining an easy fit with the existing Business Enterprise Centres. Ultimately, the result was that the Council was not able to create the more comprehensive training and development programs it had envisaged. One lesson seems to be that if the State is devolving ESD responsibilities to LG then the State needs to be more supportive and better at coordinating its departments engaged in ESD strategy development and implementation.

Although the Newcastle economy has performed well over the last five years, arguably many of the ESD programs established by Newcastle Council have played some part in this. In this respect the Council may have under delivered on a key element of its ESD program, being to help the economy in its transition from an industrial city to one more broadly based around sustainable industries. This is not to say that Council policies, including shop top housing and inner city place management, have not helped inner city revitalisation. Clearly they have, however the broader favourable economic conditions of recent times may be more fortuitously based on the national property boom and its associated wealth effects on local consumer expenditure than the ESD initiatives.

The initial vision of Newcastle Council's ESD strategy under Heys was that Council would lead the Hunter Region's transition to sustainable economic development. In this respect, Albrecht & Gutberlet (2000) warn that the Hunter region's over whelming reliance on coal production is not sustainable in

environmental or economic terms. The authors estimate the region has around 20-30 more years of useable supplies available. Though the Council's ESD program was visionary, it appears to have found implementation difficult. Less demanding segments of the program were implemented first while others appear to have lost momentum. The next section examines factors that could improve the implementation of ESD strategies.

IMPROVING THE IMPLEMENTATION OF ESD STRATEGIES

The election of the present Newcastle Council (1999), led by Lord Mayor Tate, has seen changes to the initial ESD vision of the 1990's. Though the present Council continues to promote ESD with new ideas such as the urban forests project, more interventionist ESD programs have been scaled down. In its defence the current Council may not have access to the grants that were available to the region during the late 1990s. Further, the need for economic restructuring was more pressing during that time given the closure of the region's steelworks, compared to the more buoyant economic circumstances enjoyed by the current council. However, as noted the region's economic growth since 2000 has been related to the property boom and higher commodity demand, which has driven local retail consumption and construction. As with the nation this has not lead to the required restructuring of the local economy, thus leaving it vulnerable for the future.

As the region's heavy industries, power generation and coal exports come under increasing pressure, and with the property market softening, there will be a need to revisit the ESD goals of the 1990s pursued by Council. Though ambitious, Council's intentions to reposition the region towards sustainable industries and built form will be seen to be essential. If this is correct then it is important to revisit the initial ESD strategy for Newcastle, identifying weaknesses and strengths. The first step is for the Council to re-establish its leadership role on ESD and believe in the importance of, and its ability in, encouraging a more sustainable diversified economy. Council's elected leaders will then need to re-establish the resources for, and enthusiasm of, its staff for the projects that were earlier identified. Even though key drivers from the 1990s have left, arguably they have left behind some intellectual capital and soft planning infrastructure that could be further mobilised.

An important lesson to be learnt from Newcastle appears to be that local government requires support from higher tiers of government if it is to seriously implement comprehensive ESD strategies. Obviously local leadership is also important and the Heys' council did suffer from its share of internal arguments. The importance of Commonwealth and State government support can not be overstated. In some cases the Heys' council experienced opposition at State and Commonwealth levels to many of its ESD based programs. Unfortunately, this was part of a larger problem of Newcastle Council defining Council's ESD strategies more broadly than the State and Commonwealth were willing to entertain. If the Commonwealth had stayed true to the initial vision of the 1992 National Strategy for ESD (NSESD), then it would have provided a supporting infrastructure for local government ESD implementation. This could also be said of the State government which could have established a program of better coordination between State departments and local governments' implementing ESD agendas. The fact that this coordination was inadequate reflected a narrower view of ESD by the State and Commonwealth, mainly viewing ESD as mostly land development related.

Given the budgetary limitations on Newcastle Council, its ESD program in the 1990s was heavily dependent on establishing a network of partnerships. Consequently, the Council's comprehensive ESD program was implemented through indirect channels requiring Council's coordination of many players. This taxing management task would have included working with government departments and their local agencies, industry partners and community groups. In the long run it was difficult to maintain the

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momentum between Council and its partners, thus the initial ESD vision was watered down. This illustrates another lesson identified by Heys, which is that its ESD programs required a greater revenue raising capability of the Council to more directly resource ESD initiatives. One option now would be for the Council to tap into the capital growth in the property market partly generated by Council's ESD policies. In particular, the act of rezoning under its urban strategy in the past has created capital gains for land owners and developers, but not for Council and its citizens.

One method to capture the economic rent generated by property appreciation is through land taxation. At the local government level this is mostly captured through the ad valorem component of council rates, which is an annual tax as a percentage of land value. Interestingly this option is at odds with Newcastle Council's 2004 policy to reduce the ad valorem component of rates in favour of a larger fixed component. Thus the new rating system is more dependent on population growth, rather than asset (land) appreciation, in raising revenue. In addition, the fixed component of rates (as against ad valorem) is less justifiable on equity ground and less efficient in reinforcing the ESD urban strategy. Ad valorem was devised to place incentives on owners and developers to redevelop properties in areas up zoned under an urban strategy. In contrast, a fixed rate component reduces this incentive to develop as developers can forestall developments. Consequently, Council needs to ensure that the pricing effects of its revenue raising are consistent with Council's ESD programs.

Revenue from land may also be captured through developer charges and contributions. In NSW developer charges, known as Section 94 (S94), contributions vary between councils. Some see this charge as adversely affecting dwelling affordability; however, it is an empirical question as to whether the cost is passed to the end consumer or back to the original land suppliers. Developers can also be asked to contribute in kind to ESD based projects. This has been attempted at Newcastle on a smaller scale with contributions diverted for local libraries. Council may have scope to increase the scale of these contributions through development offset schemes. Developers, for example, may be allowed more latitude with yield if they provide small business incubated space. The newly amended S94 legislation (NSW 2005) gives councils and developers many more options in applying S94.

Local government, unfortunately, is often limited in collecting revenue. This is particularly the case in regards to land rates, where the NSW government percentage caps (about 3%) the amount of councils' annual increases. These fiscal constraints are unfair on councils in a situation where greater ESD responsibilities have been devolved to the local level. Implementation at this local level, in contrast with limited revenue, however is considered by the State and Commonwealth as more efficient. This efficiency is partly based on councils' advantages of local knowledge and hands on approach. The Newcastle case study, however, has found Newcastle City will not be sustainable unless higher tiers of government can work with local government to address issues of coordination and local government fiscal constraint.

After many years of unsustainable development the Hunter Region possessed a council (Newcastle) in the late 1990s eager to implement ESD strategies, but unfortunately confronted with inadequate support from higher tiers of government. Newcastle Council went beyond State and Commonwealth legislative requirements and embraced its responsibilities from international ESD based environmental agreements. This occurred at a time where it appeared that the State and Commonwealth governments watered down, or at worst jettisoned, their ESD strategies. Given the Commonwealth government's decision not to ratify the Kyoto Agreement, for example, Australia may find itself under increased local government, State and international pressure to eventually sign on. In respect Kyoto the Commonwealth government may be leaving the Newcastle region particularly vulnerable to future international agreements affecting unsustainable industries such as coal fired ones. This not only

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necessitates a rethink at the local level towards resurrecting a comprehensive ESD strategy, but also requires the Commonwealth to provide the sustainability infrastructure promised by the National Strategy for Ecologically Sustainable Development (NSES). Included here are the use of taxes and subsidies, transport infrastructure and improved inter government planning to support those regions like the Hunter restructuring towards greater sustainability. It is of some interest that the Sustainable Cities Report (Commonwealth 2005a), released by the Commonwealth House of Representatives Standing Committee on Environment and Heritage in September 2005, may signal new thinking at the federal level. The release of the Commonwealth governments cost shifting to local government (Commonwealth 2005b) could be a further signal that a restructure of financing local government (thus assisting ESD program development) is also on the federal agenda.

CONCLUSION

The adventurous approach to implementing an ESD strategy in Newcastle City offers an important case study in the present environment where more is expected of local government in this area. Though there is a need for councils to improve their performance on ESD strategies, this Newcastle study demonstrates this requires improved coordination between all levels of government and greater fiscal assistance to be successful. The present reality is that councils continue to be constrained by State legislation in raising revenue through property rates and inadequate support from State and Commonwealth governments' planning and regional development departments. Consequently, many councils may be forced to take a very limited approach when adopting ESD strategies. If this is to be avoided then the Commonwealth and State governments need to recommit themselves to implementing the full agenda of the NSES (1992) and increase their support for local government.

ACRONYMS and ABBREVIATIONS

ABS – Australian Bureau of Statistics
BBC – Building Better Cities
BEC – Business Enterprise Centres
BHP – Broken Hill Propriety Ltd.
C21C – Cities for the 21st Century
CHC – Clean Hunter Centre
CST – Centre for Sustainable Technology
DHRD – Department of Housing and Regional Development
ESD – Ecologically Sustainable Development
FCCC – Framework Convention on Climate Change
GMR – Greater Metropolitan Region
GST – goods and service tax
HA – Hunter Advancement
HDC – Honeysuckle Development Corporation
HEDC – Hunter Economic Development Council
HROC – Hunter Regional Organisation of Councils
HURDO – Hunter Urban and Regional Development Organisation
HVERF – Hunter Valley Research Foundation
ICLSE – International Centre in Local Sustainability and Environment
LEFP – Local Enterprise Facilitation Program
LEP – Local Environment Plan
LA21 – Local Agenda 21
LG – local government

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LGA – local government area
LVT – land value tax
NCC – Newcastle City Council
NEDS – Newcastle Economic Development Study
NEMP – Newcastle Environment Management Plan
NDF – Newcastle Development Fund
NLEP – Newcastle Local Environment Plan
NSCI – Newcastle Sustainability Community Indicators
NSESD – National Strategy for Ecologically Sustainable Development
NSP – Newcastle Social Plan
NSRP – Newcastle Steel River Project
NSW – New South Wales
NUS – Newcastle Urban Strategy
RS – residential strategies
S94 – Section 94
SEPP – State Environment Planning Policy
SIC – Sustainable Industry Cluster
SMA – Sydney metropolitan area
SME – small and medium-sized enterprise
UN – United Nations
WCED – World Commission on Environment and Development

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