School of Resources, Environment & Society

FORESTRY • GEOGRAPHY • HUMAN ECOLOGY • RESOURCE & ENVIRONMENTAL MANAGEMENT

Emeritus Professor Valerie A. Brown AO, BSc MEd PhD
Director, Local Sustainability Project, SRES, ANU, ACT 0200
Ph/fax 61 (0)2 62958650   email val.brown@anu.edu.au
website: www.sustainability.org.au

SUBMISSION TO:

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Inquiry into Sustainable Cities

FROM: Emeritus Professor Valerie A. Brown AO, BSc MEd PhD
                  Director, Local Sustainability Project

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Summary

This submission from Valerie A. Brown AO, Director, Local Sustainability Project, relates to the terms of reference of the Inquiry into Sustainable Cities, as follows:

- **Monitoring** the environmental and social impacts of sprawling urban development
- A 'blueprint' for the **decision-making** process for ecologically sustainable patterns of settlement
- Mechanisms for the Commonwealth to work in **collaboration** in bringing about urban development reform and promote ecologically sustainable patterns of settlement.

The conclusions below are drawn from a series of national and international workshops on sustainability issues in 2003, including ethics, management, governance, social equity, economic security, and environmental integrity; and Local Sustainability Project research 1996-2002. They are:

1. Sustainability is the core theme for the changes in society and environment facing us in this century. The city is the key unit for managing those changes. It decides "How shall we live?"

2. The concept or ideal of sustainability is still emerging. Three quite different, but not incompatible, sustainability agendas can be found both across cities and within the same city. They can be described as Reform, Repair, and Wait-and-see.

3. Sustainability is differently interpreted within the many communities, specialist services, and administrative departments that make up a city. Research by the Local Sustainability Project found that linking these different interest groups requires recognition of their different knowledge cultures, together with committed individuals who work strategically, and give leadership in developing a shared focus.

4. A wide range of integrative processes to bring together these different agendas and cultures has been developed in the last decade, for instance place management, adaptive management systems, whole-of-community engagement, integrated local area planning, state-of-environment reporting, sustainability impact assessments, etc. The challenge is to choose the appropriate tool for each issue and city – there is no one right way.

5. These integrative processes themselves need to be brought together in some constructive fashion. In any one city, working towards sustainability requires decision-making that includes four steps: developing sustainability principles, describing people and place, designing for potential, and doing the design in practice (D4P4, Figure 1). For the reform sustainability agenda, strategies to combine the five voices (individuals, community, specialists, government, and holists) are needed at each of the four stages, so that the whole decision making process is collaborative, transparent, and on-going.

Signed: Valerie A. Brown 31-10.03

1.   Context: Sustainability as "How shall we live?"

This inquiry is timely. It has the opportunity to bring together, and to put into effect, the conclusions of a widely diverse range of conferences, inquiries, workshops and reports on sustainability governance, being held at the global, regional and Australian local scales. The number and scope of these meetings on issues of sustainability governance confirm the timeliness of this inquiry and the validity of its broad terms of reference. The briefing paper admirably captures these issues.

Under the general heading of sustainability, the future governance of place, from a local park to the entire planet, is being called into question. Questions are being asked across the full range of professional, social and political perspectives. This is far from an exaggeration. A list of the 12 conferences and workshops on matters relevant to Sustainable Cities that I, as merely one individual, have contributed to in the past twelve months, is in Attachment A. Each meeting considered avenues for change, whether they were sponsored by government or non-government organisations, business and industry, or local communities. Their subject matter ranged across the health, ethics, science, society, economics, natural resource management and what is beginning to be called "urban ecology"; this last being how cities and their people interact with the natural systems on which they are built.

Questions which from the context of the Inquiry drawn from the broad-ranging discussions at these meetings are:

- Sustainability is the core theme for the changes in society in this century, just as industrialisation was the central theme of the past two. It is about "How shall we live?"

- The concept or idea of sustainability is multi-faceted and still emergent, and requires open-ended working definitions, related to an ideal goal, rather than a single recipe or fixed objective. Do we have a preferred working agenda?

- Sustainability is differently interpreted in each of the silos formed by the disciplines and
administrative departments. How do we respect and bring together these interpretations in a collaborative and concerted way?.

- Since the multiple interpretations and applications of sustainability make it an essential condition that any sustainability initiative is integrative and collaborative, at any scale or in any jurisdiction, where can we find transparent, shared, integrative frameworks?

- In any one initiative, not one, but several integrative frameworks are required for establishing a. a coordinated knowledge base, b. collaborative teamwork, c. a cooperative decision-making system, d. sets of integrating skills, and e. constructive outcomes. Since one key integrating factor is place, how does a city function as the ideal sustainability governance unit?

2. Issues: The Sustainable City has three agendas and five voices

2.1 Sustainability working definitions

The concern of humans for their impact on their living environment is age-old, from the Druid's incantations for the seasons to continue, to the most recent combined report on the state of the planet by the World Bank, United Nations and World Resources Institute, appropriately called *The Fraying Web*. Humans have changed the global environment, probably irrevocably, and have to live with, and manage the changes. The working definitions of sustainability presented below add up to the question "How shall we live?"

The acceptance of the need to answer this question is beginning to creep into most discussions of the future, but with many different interpretations. There seems to be a core agreement in the community, between scientists, and among governments, that sustainability is:
-        combined social and environmental change, not a revolution, but not
                business as usual;
-        essentially integrative, considering lives, livelihoods and landscapes as
                one interactive system; and
-        whole-of-community engagement, with all interests collaborating.

There are many approaches to answering that key question. According to recent working definitions, sustainability is:

Meeting the needs of current and future generations through the integration of environmental protection, social advancement and economic prosperity. Western Australian State Sustainability Strategy 2003

Reconciling development goals, social needs, and ecological resources. WSSD 2002

Supporting a life-sustaining Earth. USA EPA 2000

A population is ecologically sustainable when the ecosystems of which it is a part and on which it depends (local, regional and global) maintain their capacity to satisfy the health and survival needs of that population. Stephen Boyden, Nature and Society Forum, 2002

Sustainability is about the creation of healthy personal and community lifestyles and social, environmental and economic systems that utilise and sustain natural and cultural resources in ways that are equitable within and between present and future generations. Australian National Centre for Sustainability 2003

The achievement of sustainability objectives will require holistic actions by all sections of society and will require considerable cultural change to societal customs and aspirations. This necessitates the development of transitional pathways from the present situation to the preferred future.
Institution of Engineers Australia, "Sustainable Energy Taskforce" Report, 2001.

What is shaping how the world evolves today?... Not any one individual but rather a network of people and organisations who are planting ideas of interdependency and sustainability that will transform how our larger systems work in the future. We don't need a new world president who will make it all work out for us. We need many people who do things with awareness that we're all interdependent. MIT Professor Peter Senge, author of The Fifth Discipline

2.2   Sustainability goals: three agendas

Sustainability in cities is being approached through any one of three different agendas, all running at the same time; sometimes generating divisions within the administration of cities, sometimes between them. Currently the most active is the reformative, whole-of-city agenda, as implied in the working definitions listed above. This is not necessarily new to cities. The continuity of social changes encompassing the city as a living unit go back to the classic Jane Jacobs' *The Life and Death of Great American Cities*, and Mumford's *The City in History*, both from the 1960s. What is new is the incorporation of a concern for the future of the environment. We can call this **The Sustainability Reform Agenda.** Melbourne is one example of this agenda.

A longer standing agenda is the goal of sustainable development that emerged as a strong influence with the World Commission on Environment and Development Report in 1987. In discussion since the 1970s, Sustainable Development has agreed principles of inter- and intra- generational equity, environmental integrity and the Precautionary Principle. This agenda accepts that the planet's ecological integrity and economic development are out of balance; and assumes that by prompt action and with sufficient skills and resources, the long-term balance can be regained. This repair agenda was readily adopted at the city level, since the city government has always been faced with the need to integrate local environmental and social resources. Often linked to Local Agenda 21 Plans (sustainability planning for the 21st century) arising from the United Nations Conference on Environment and Development in 1992, thse were successful in Britain, but have not gone very far in Australia. This approach could be called this **The Sustainability Repair Agenda**. The city of Brisbane falls partly into this category, and partly into reform.

The third sustainability agenda derives from a not-yet-proven, or the wait-and-see, approach to sustainability. This is linked to a position of sceptism of the global predictions, and/or a conviction that technological changes causing the present disruption were human-made and so further technological advances will continue to resolve the issues they generate in their turn.   This could be

labelled **The Sustainability Wait-and-See Agenda**, which could well be applied to Sydney, with its strong inner-density and re-development programs.

2.3 Sustainability decision-making: five voices.

The extent to which our society is compartmentalised in its approaches to knowledge, and in its administration, is readily observed in any organisation or service area, and reflected in the practice of referring to disciplines and departments as "silos". Nowhere is this more apparent than in the area of sustainability, which is often defined as a Triple Bottom Line of social, economic and environmental resource. This means that those within Sustainability Agenda 3 feel free to relegate its implementation to the existing silos; almost by definition a self-defeating strategy.

Some Sustainability Repair Agenda cities and councils have been preparing three sets of "accounts" for social, economic and natural resource capital. While this means the three sets of resources are considered, it can also be counterproductive. In the compartmentalised administrations of cities, it has been shown to encourage the three divisions to compete even more for resources. In cities working with the Sustainability Reform Agenda, councils

moved to a "Single Bottom Line" in which either the strategic planning division or the sustainability advocate took the responsibility for integration from the beginning, not only of capital resources, but of lives, livelihoods and landscapes.

A study by the Local Sustainability Project, 1996-2002, of the introduction of the Sustainability Reform Agenda through communities, professions and local government, respectively, found that each of these groups had a different language, goals and understanding of sustainability. Overall, each sector's approaches were so different that they could have been addressing different realities to the other sectors, even when living in the same place. More hopefully, each of the reformative processes, in very different localities, shared the same attributes for success: a committed sustainability advocate, with a strategic approach open in the choice of tools, and using any one of a number of integrative frameworks to link the decision-making sectors.

A detailed review of the implications for sustainability of treating **community, specialised and government** decision-making sectors as distinct cultures, linked through **individuals**' capacities to bridge the knowledges, and a shared **holistic focus**, is in Attachment 2. Brown VA 2004 *The Sustainability Dialogue, Public Health and the Synoptic Construction of Knowledge.* Although that paper addresses sustainability through public health action in communities, the process of linking the five decision-making contributions is the same as was found for sustainability governance in cities.

2.4 Sustainability and integrative frameworks

The push for more integration calls for the question "Integration of what"? In the case of sustainable cities, there is need for integration within the city, between sectors and between agendas, that is, action from the inside out; and between the city and external influences, action from the outside in. In both cases this includes a need for modes of collaborative decision-making, involving whole-of-community engagement, coordination of knowledge, and cooperative team-building.

A wide range of integrative processes has developed in city management in the past decades. These include place management, whole-of-community engagement, integrated local area planning, state-of-environment reporting, sustainability impact assessments, community mobilisation as in Landcare, social learning programs, multidisciplinary frameworks, quality circles, Common Ground, whole-of-council social change programs, etc, etc. The Local Sustainability Project Study found that the particular framework and tool were not as important as the presence of a sustainability advocate, with the personal strategic skills to select an appropriate framework and set of tools appropriate for the conditions of each particular settlement.

3. Ideas: Integrative sustainability decision-making processes

3.1 Sustainable cities: integrated decision-making process (D4P4)

The particular research approach taken by the Local Sustainability Project was to identify a decision-making framework that incorporated those of community, specialists, and government. A series of workshops with these interest groups produced the synoptic framework in Figure 1. below. Held at a first principle, simplistic level so as to achieve a shared understanding of an issue, the decision-making spiral (represented here as a cycle for convenience) consists of the four stages of Developing Principles (*what should be?*), Describing People and Place (*what is?*), Deciding on Potential for progress (*what could be?*); Doing in Practice (*what can be?*) as much as can be done to achieve the potential; and then back to check the shared principles.

This framework, described asD4P4 for short has been trialled in over 40 sites, and published as the basis for and integrated sustainability State-of-the-Environment Report for Western Sydney and as a toolkit for whole-of-community engagement for the Murray-Darling Basin Commission. For the community it matches the elements of social learning (values, facts, ideas and actions). For specialists it follows the standard state-of-the-environment reporting framework, Pressures - State - Impact – Response. For government strategic planners it matches "set goals, plan, do, review" (Figure 1).

3.2 Sustainability indicators
In developing indicators for sustainable cities, these are decision-making signals for progress towards and ideal, not mere one-off measures. Going round the cycle again in Figure 1. , the principles

(*what should be*) are the anchor point: they are the principles of sustainability accepted by the city concerned. While these could be Agenda 1, 2 or 3, above, here we are concerned only with the principles for Agenda 1, the Reform Agenda derived from the working definition in Section 1.   Indicators are chosen as a symbol, or a signal of publicly recognisable change between the existing measure (*what is*) and the potential for change (*what could be*). The actions connected with progressing change provide another evaluation point (*what can be*).

Since every city has its own ethos, its own social economic and ecological resource base, and its own history, straight comparisons of changes in air, water, soil, energy use, waste production and education are invalid.   However, the derivation of ratios (eg population increase by waste to landfill; city material flows) can allow comparisons; and development of a city sustainability vision (eg guided imagery, a charette, scenarios, preferred futures) can allow each city to fulfil its own dream of a sustainability city. Using either or both parameters allows cities to learn from each other, and settlements in the same region to work together collaboratively rather than competitively from within their "silos".

Sustainability Decision-making Processes (D4P4)
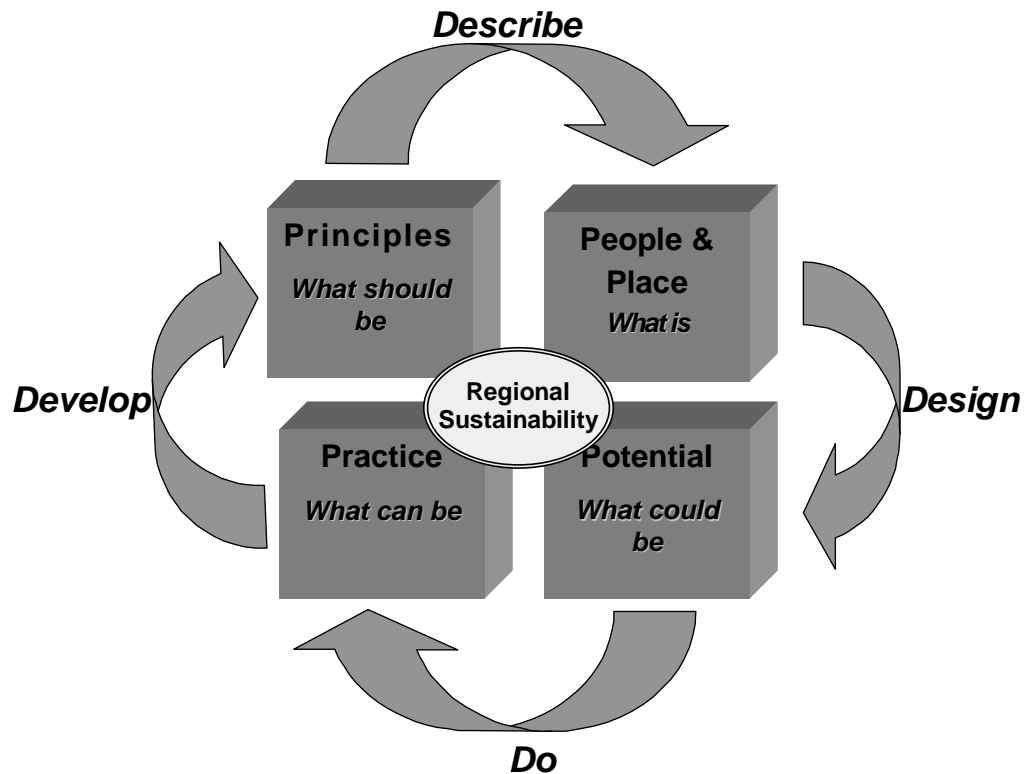
D4P4 Decision-making Framework (Brown 1997) incorporating:
- **Social learning cycle**
- **Environmental monitoring cycle**
- **Strategic planning cycle**

Develop Principles: POLICY	Describe the Place: MEASURES	Design for Potential: GOALS	Do in Practice: ACTIONS
Rules	Indicators		Progress

Figure 1. Integrative Decision-making for Sustainable Cities

(Brown Valerie A. 2004 *Wicked problems, Synoptic Solutions*)

ADDITIONAL INFORMATION HELD BY THE COMMITTEE

ATTACHMENT TO SUBMISSION NO. 90

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