

The Productivity Agenda: education, skills, training science and innovation

Australian governments support an international governance paradigm in which good governance normally requires clear separation of government policy from its administration, with the former driving competitive, transparent, service provision (Rich, 1989; Hilmer, 1993) so all may identify a range of economic, social and environmental outcomes. Program budgeting, as partially implemented in the public service by Wilenski (1982; 1986), is central to this approach. Managers start with regional program or project aims which have been consultatively developed, then establish strategies to meet them and prepare related budgets. All activities are monitored and their outcomes are measured in the light of the agreed aims. Unfortunately, the Senate Committee report of inquiry into transparency and accountability of Commonwealth public funding and expenditure (2007) recommended complex additions to old budget processes which are likely to add to current budget opacity and all related cost. The committee concludes its recommendations are designed to restore the Parliament's historical and constitutional prerogatives. This is undesirable in an era where open partnerships with industry and communities are required to achieve national and regional goals related to health and sustainable development effectively, through fair and efficient competition. The Senate committee seeks to take Australia backwards because it is blinded by an outdated Constitution and financial administration which reflect an outdated British governance model.

In the above context, broader, more up to date, flexible and cheaper education is vitally necessary to bring about community understanding and change. Open education models for community and industry management are vital for the future. Linked and open approaches towards education for health, sustainable development and human rights are necessary. Comparatively few Australian employers appear able to undertake or support much scientific and technological research and development on their own behalf. However, across the board benefits may be derived if industry leaders, their organizations and members are willing to participate in broader, more open, regional community planning approaches which also address effective communication, education, skills development and research to achieve national objectives related to control of greenhouse gas emissions and sustainable development. This direction should also be supported by broadly available, clear and cheap risk management education and by making key undergraduate and related curriculum content openly and freely available to all, so that research training for postgraduate students and others can be built more transparently and effectively on this clear basis of promotional and certifiable knowledge. An open curriculum approach would be the most obvious and effective way of developing many skills quickly and flexibly. It would be helpful for fighting inflation and for business and community innovation and cost cutting. The closed, computer-based, distance education initiatives which Australian universities have funded in the past are comparatively little utilized (Gallagher 2000; Nelson 2002), their production costs are more expensive than classroom teaching and they have not made money (Marginson 2004). These products are not open to scrutiny so their quality cannot be judged. Openness will improve it.

The Future of the Australian Economy

Economic crises show the need for greater world governance, especially to manage 'public goods' like financial stability and environment development. Papers of the Annual Bank Conference on Development Economics (Stiglitz and Muet, 2001) reflect a new high level understanding that more planned investment approaches are necessary to assist markets to meet the economic, social and environmental aims of triple bottom line accounting. Hilmer's independent committee of inquiry into an Australian national competition policy in 1993 should have led naturally to a highly competitive approach to sustainable development and triple bottom line accounting. He defined competition as, 'striving or potential striving of two or more persons or organizations against one another for the same or related objects' (1993, p.2). However, this late twentieth century idea, that competition need not only be for money, has since been overlooked as a result of dysfunctional additions to older legislation such as the Trade Practices Act. Understanding what Hilmer's view of competition required but did not get the chance to achieve is necessary for positive change.

The Prime Minister's tests for an effective emissions trading scheme are that it must:

- Be a cap and trade scheme to be internationally consistent
- Effectively reduce emissions
- Be economically responsible
- Be fair
- Recognize the need to act now

The European experience of carbon trading is that the long-term price of tradable emissions permits is too uncertain to be a driver of systematic technological change in industries where generating capacity investments are normally planned over thirty year periods. Current Australian overregulation prevents markets being informed. In the absence of more broadly scientific regional structures for managing risk, many more narrow and contradictory legal, economic and scientific expectations will make the achievement of sustainable development impossible.

Australian design of a carbon permit trading scheme should draw on the social insurance, administration and competitive investment perspectives of Keynes, Beveridge, Wilenski and Hilmer. These developed over recent decades in Australia primarily through community and work related health and disability insurance, superannuation savings and related investment models which are also guided by national competition requirements and relevant international agreements. Governments, industries and communities should cooperatively establish regionally coordinated, consultative and transparent planning, risk management and related fund management and investment structures, to support key sustainable development goals. The issue of 'permits to pollute' is ideally designed and managed to control inflation and attain more open, scientific, stable, and competitive markets, which enable industry and community investments that are directly related to attaining sustainable development. Polluters ideally choose either to reduce their identified greenhouse gas emissions at the business source, or invest in the control of related problems in surrounding communities. Regionally coordinated, industry and community identification and prioritization of problems which can be solved by a range of simple or complex innovative projects for sustainable development are now required to meet the economic, social and environmental goals of triple bottom line accounting.

Population, sustainability, climate change and water

The first principle of the UN Rio Declaration on Environment is that human beings are at the centre of concern for sustainable development and are entitled to healthy and productive lives in harmony with nature. The UN Framework Convention on Climate Change led to the Kyoto Protocol in 1997. The latter commits countries to reduce greenhouse gas emissions in the staged way outlined. The long-term price of tradable emissions permits is too uncertain to be a driver of systematic technological change in industries where generating capacity investments are normally planned over thirty year periods. Garnaut warned the Australian government:

'Care would need to be given to the design of the institutional arrangements for administering the allocation and use of permits. Variation in the number of permits on issue or the price would have huge implications for the distribution of income, and so could be expected to be the subject of pressure on Government. There is a strong case for establishing an independent authority to issue and to monitor the use of permits, with powers to investigate and respond to non-compliance' (Interim Report, 2007, p.65).

This approach is irresponsible because government is elected to govern. By giving away its power to a body established at arm's length from itself, government makes itself more ignorant and unaccountable than it would otherwise have been. Without the primary requirement for openness and the potential for evidence based correction by government or its established authorities, arm's length management leads to more ignorance, extra cost, and likelihood of loss, rather than to achievement of investor aims. The common legal perception, that blinding oneself is a prerequisite for correct action, predates scientific views of problems in any arena and of all evidence. From a scientific perspective, one should be as informed as possible for good decision making to occur.

The idea that establishing fund management and risk underwriting bodies at arms length from an original body will guarantee objective management of funds is particularly wrong if the appointed trustees have secret relationships and drivers of their own. However, the report of the Parliamentary Joint Committee on Corporations and Financial Services (2007) on the structure and operation of the superannuation industry unquestioningly supported requirements that superannuation funds are managed and/or underwritten at arm's length by separate trustees. It recommended treasury conduct a review of regulation governing superannuation funds to identify how they may be rationalised and simplified. There is a prior need to describe and justify the funds' trustees and their wider aims and relationships. Otherwise, Australian producers and related saving and investment communities may be paying for the privilege of increasing their own ignorance, costs and loss of control over their financial affairs. If industry superannuation funds openly tender their key service provision agreements it would encourage the market through educating it. I assume perfect information, perfect competition, perfect accountability, perfect risk management and perfect democracy are all logically and positively related. What do you think?

Future directions for rural industries and rural communities

When the Hawke Labor Government came to power in 1983, it addressed the long-term problem of Australia's increasingly unacceptable terms of trade through an economic management agreement (an 'accord') with the trade union movement. Industry councils were also set up in manufacturing. These conducted stock takes of industry sectors and developed strategic plans. This moved employers and workers from an automatic reliance on barrier protection towards strategies which included economic incentives for microeconomic reform to make organizations more competitive. The latter approach is now highly relevant for rural and service industries and communities. Identifying the risk management aims of particular communities, industries and organizations, should begin with understanding production and its surrounding environment in order to reduce related risks. The next step to sustainable development is to identify and prioritize the key risks to air, land, water quality and biodiversity which arise on a related organizational, industry and community basis. Then organizational, industry and related regional community projects are ideally developed to control the identified risks to air, land and water quality, and to reduce loss of biodiversity. The comparative outcomes of this activity are evaluated and the allocation of future funds on the basis of comparative performance is undertaken. All environment rehabilitation and other key regional goals are ideally considered in related risk management contexts and funding incentives to the private and voluntary sectors are ideally provided by government to assist in the cooperative achievement of international, national and regional goals.

The National Greenhouse and Energy Reporting Bill (2007) is a new opportunity to replace much dysfunctional regulation and assist attainment of more informed markets and better skills development. The Senate inquiry into the bill noted there are fifteen separate programs with greenhouse and energy reporting requirements. The bill presents the chance for an investigative audit of major polluters to establish better scientific foundations for carbon measurement, pricing and permit trading and for better industry and community based innovation, regional development and investment. Without an effective framework for managing sustainable development, all trading to improve performance is likely to be highly speculative, with all the associated high risks and costs. The World Wide Fund Climate Solutions Vision for 2050 (WWF 2007) and other scientific and regional studies appear ideally implemented in related investment contexts. The WWF recommends breaking the link between energy services and primary energy production; strategies to stop forest loss and concurrent growth of low-emissions technologies; development of more flexible fuels, energy storage and new infrastructure and the displacement of high carbon coal with low carbon gas. Carbon capture and storage potential must also be addressed. The national framework for management and monitoring of native vegetation, the national strategy for conservation of biological diversity and the national action plan for salinity and water quality appear most logically considered for direct implementation as greenhouse gas offset investments in related regional industry and community management frameworks, as described above.

Long term national health strategy – health promotion, workforce planning and ageing population

The first principle of the UN Rio Declaration on Environment is that humans are at the centre of concern for sustainable development and entitled to healthy and productive lives in harmony with nature.

Australia supports global partnerships for development to achieve the UN Millennium Development goals which aim at eradicating poverty, hunger, disease and gender inequality, as well as achieving universal education, health and environmental sustainability. The holistic, risk management approaches to achieving health, education and communication which are discussed below in the Australian regional context also support these international goals.

Health and related industry management models stress the importance of consultatively developed aims, supported by transparent service delivery to achieve them and related outcome evaluation. Regional health planning, health promotion, workplace risk management, and program budgeting all reflect such requirements, which may also be applied in resolution of disputes. First, an environment is studied in order to identify and prioritize its risks prior to dealing with them. From an action research perspective, all social administration is envisaged as experimentation combining investigation and implementation in a continuing process which also attempts to improve work and community outcomes. Ideally, organizations should have consistently applied duties of care to workers, clients, communities and the natural environment. Codes of practice, as they are ideally used under occupational health and safety acts, provide the flexibility necessary to achieve further innovative advancement and all related benefits of more scientific practice. Approved codes of practice are ideally followed unless another course of action appears safer, according to the specific requirements of a particular situation. Workers in health care apply a similar approach in that they ideally diagnose and treat each person after consideration of the apparently relevant body of scientific evidence. Treatment may vary as far as this appears necessary to meet the specific health needs of a particular individual's situation. The reasons for deviation from the generally expected expert practice should be documented. This then contributes to bodies of related information which are studied to improve treatment of both common situations and atypical ones.

Australian health, communication, education, research and competition policy should be coordinated to assist communities and businesses to understand the above direction, in order to improve health and sustainable development as broadly as possible. An open education model to deliver this may be driven by government, industry and community partnerships with the primary aim of promoting health and skills development through more open, flexible and broader dissemination of curriculum and related support. Students should be given an understanding of basic governance principles for injury prevention and rehabilitation, and have opportunities to undertake practical exercises in the consultative identification, prioritization and control of risks to health and sustainable development which may be applied in any community or workplace. Ideally they may also make short films or similar communication products as assessments. Outdated institutional requirements for confidentiality and vested sectional interests currently hinder this development approach. Broader regional cooperation is necessary to achieve it.

Strengthening communities, supporting families and social inclusion through better housing

Australian governments have not resolved the problems of housing for millions of people. Milligan's research for the Australian Housing and Urban Research Institute (AHURI) argues policy to reduce the housing affordability problem should be mainly targeted to making housing more competitively priced for those in the lowest 40% of the total population of Australian household incomes. Housing development is ideally discussed like health care provision, from nationally and regionally planned and competitive perspectives. The interests of all Australian housing consumers are best conceptualized in regionally based, industry and community contexts and related analysis of their constituent parts. This is necessary to gain more affordable and sustainable housing as well as cheaper and more effective financial services. However, this perspective appears to be the reverse of those whose analysis is based primarily on supply and demand and driven by related investment strategies. Government policy should instead focus primarily on housing consumer needs and promote business competition to develop sustainable housing in a way which is also designed to assist the comparatively disadvantaged 40% of the population, whether they are purchasing or renting. Taxation design should support this.

Poor housing decisions add to greenhouse gas emissions and other environment problems. Governments and other interested parties should put forward project proposals to the Council of Australian Governments (COAG) as solutions to these problems. The concerns of 85 Councils from across NSW whose members rallied to oppose proposed changes to the NSW Planning System are also logically treated in a coordinated, national, context. Councils call for an efficient development and approvals process, which is not undertaken at the expense of heritage, sustainability and the democratic right for input into the future of the neighbourhood. These claims must be implemented from more broadly open and scientific regional perspectives to be effectively met and corruption free. The alternative is more confusion, division, cost and conflict, driven largely by the twin desires for market and political advancement. Councils are concerned that any NSW plans to limit monetary contributions to councils from developers will prevent the latter from providing local facilities and services. They also say these development contributions provide only a fraction of the cost of infrastructure needs. However, future funding or in-kind contributions for land purchase, housing and infrastructure development need to be more clearly and broadly justified. Otherwise they will increase the divide between the wealthier 60% of the population and the poorer 40% even further.

The CEO of Lend Lease Retail and Communities believes affordable housing and sustainable communities are best delivered in large scale projects and that this will result in the most integrated outcomes and most efficient use of government subsidy. He calls for clear identification of broadly expected project outcomes and a related clearer identification of major project risks and accountabilities. Why not work with such large organizations to attain the goals of improved services and all related sustainable development and to bring in triple bottom line accounting – with financial, social, and environmental goals?

Options for the future of Indigenous Australia

The central tenet of democracy is not just that all adults ideally have the responsibility to vote for leaders. The right of all people to develop and speak up honestly and independently is vital. Minority groups and all individuals should be assisted to achieve this by those with more power or capacity. Each Aboriginal person can normally speak only for him or her self, like anybody else. However, the practical outcome of using indigenous experiences as measures of the effectiveness of supposedly democratic institutions is that it requires investigation and understanding of those unique experiences, bringing them to the centre of all broader discussions about democracy. This is also true in regard to many others who are comparatively powerless. In the absence of this, Australian democracy is only a popularity contest.

Whether elected or appointed bodies manage an organization or community, the danger is they may use their offices to favour themselves and particular supporters rather than governing in the interests of the entire community whose interests they ideally represent. Openness and good accountability mechanisms are necessary to avoid this. Clear communication and education are also vital for good government and for related economic and cultural development. All administration is ideally envisaged as experimentation combining investigation and implementation in a continuing process which tries to improve service and community outcomes.

Courts are feudal, expensive, institutions that silence those who do not go through lawyers. They keep no data which assists injury prevention, rehabilitation or cost control. Health and industry management models are necessary that have evidence based, consultatively developed community and individual aims, supported by transparent service delivery to help achieve them and outcome evaluation. Regional planning, health promotion, workplace risk management, and program budgeting reflect such requirements, which can also be applied in dispute resolution. Codes of practice, as ideally used under occupational health and safety acts, provide the flexibility to achieve further innovative advancement and the benefits of more scientific practice. Approved codes of practice are ideally followed unless another course of action appears better, because of a particular situation. Workers in health care apply a similar approach in that they ideally diagnose and treat individuals after attempting objective consideration of all apparently relevant evidence. Treatment varies if this appears necessary to meet the health needs of the

particular situation. Deviation from the normally expected practice is documented. This contributes to bodies of related information which are studied to improve treatment of common and atypical situations.

Open and flexible education for sustainable development is necessary. Open curriculum is the most effective way of building skills quickly. Students and communities should learn basic governance principles related to injury prevention and rehabilitation by doing practical exercises in the consultative identification and control of risks to sustainable development, in community or workplace settings. They may make short films or similar products during their assessments.

Towards a creative Australia: Developing a globally innovative and competitive film industry

Part of the answer to developing a globally innovative and competitive film industry is to analyse and meet the entertainment and education needs of Australians and others together. For a personal example, the Sydney University Vice Chancellor's recent discussion of the need to maintain the student experience in the face of voluntary student unionism (VSU) and the helpful list of films about US presidents in a recent Sydney Alumni Magazine (SAM) reminded me of how much more productively all tertiary students and staff could co-ordinate their communications and related technology services to develop a better grounding for any industry, including the film industry.

I wondered where the films on US presidents listed in SAM could be found for teaching purposes. My experience of trying to get hold of key films or videos I would like to show to students is that they were almost impossible to find and never cheap. Compared with the easy availability of books, the storage and availability of films for teaching purposes is abysmal. When teaching at Sydney University I often also tried to find suitably qualified postgraduate students to undertake large quantities of essay and project marking on a casual basis, but could seldom get anybody appropriate quickly enough because there was no effectively organized system for doing so. There were lots of postgraduate psychology students sitting in the Faculty of Health Sciences where I taught, but comparatively few from other social sciences. I faced similar problems when trying to find students to help me make my first films for health policy teaching purposes and also when I wanted to find a suitable student to employ on building a website in order to make all my lectures and Powerpoint overheads freely available to anybody. I also encouraged my students to make seven minute films for their assessments and for Tropfest competitions, but only a handful did so as there was no technological support for this.

My experience was that student clubs and societies tend not to respond to any email queries from comparatively technophobic elders from unknown tribes and who could blame them? However, I constantly lamented that the full potential of much wonderful Sydney University student and staff product is lost and the employment of students by staff is made infinitely harder because of the generally poor and balkanized communication systems run by postgraduate and undergraduate students. The various research, teaching and administration services of the universities and the National Tertiary Education Union (NTEU) do not work together helpfully on their membership communication either. In general, I think that the service and productivity gains for students, staff and many others which could be derived from more effectively coordinated tertiary education, related communication and information technology management systems would be enormous. What a pity there seems to be so much resistance to more effective cooperation. This is the result of so many collegiate cultures. They are dysfunctional for nearly everybody and must be changed.

The future of Australian governance

The first principle of the UN Rio Declaration on Environment is that humans are at the centre of concern for sustainable development and are entitled to a healthy and productive life in harmony with nature. At the 1994 Asia Pacific Economic Cooperation (APEC) summit, leaders agreed to an Asia-Pacific free trade zone by 2020, and to protect health and the natural environment. The Australian government emphasis should now be on clear separation of national policy and its regional administration, with the former also

driving competitive, transparent, service provision so all may identify its comparative outcomes. Coordinated, open, regional governance structures are essential which can translate the vision of sustainability into targets, and to plan, implement and review the programs that will achieve those targets. Regional environments ideally must be examined to identify, prioritise and manage risks to sustainable production and communities.

Although Australian governments require a scientific governance paradigm they remain bound by a Constitution which reflects a feudal British model, in which elected politicians, government administrators, and the judiciary are separate and independent governance pillars. The Constitution is a law about administration, with Commonwealth and state policies subject to it. This expensively deforms all policy making. The Constitution appears to stand for a Supra-natural Power, which takes a prescientific approach to all development. How else can the supreme authority of Its word over all other law made by the contemporary community or future generations be explained? This is an authoritarian rather than scientific governance approach. Each generation is more informed than the previous one and ideally should correct past mistakes in the light of new experience. The Constitution keeps Australia looking backwards to a feudal past.

Perfect information is necessary for perfect competition. Legal 'privilege' is a ubiquitous feudal concept justifying denial of information. The assumption is that the lawyer may conceal or mould what his client knows is true, to maximise his interest in revenge or escape from any guilty judgment and its consequences. From a scientific perspective this is fraudulent behaviour. Lawyers are prohibited by narrowly feudal assumptions about the supremacy of the legal Word from understanding or properly implementing any whole of government approach to the attainment of community or individual interests. Courts provide no data to assist more scientific approaches to community or industry management. The legal fraternity do not systematically classify cases or study outcomes of a broader range of related judgements, to gain better understanding of outcomes for groups or individuals and so as to promote better injury prevention, rehabilitation, premium setting or better law and policy in future. Scientific principles are overruled by feudal ones.

Ignore the Constitution where necessary and get rid of the monopoly powers of lawyers. All dispute resolution should be conceptualised as social service, like the provision of health services or education services and treated accordingly. The array of expensive, feudal, wrong, legal assumptions which undermine all scientific management approaches are long outdated.

Australia's future security and prosperity in a rapidly changing region and world

The one child policy and increasing life expectancy has meant China's population is ageing fast. While this is a major Chinese welfare preoccupation, the population in many developing nations is increasing extremely rapidly. This is likely to lead to surrounding poverty, environment degradation and land dispute. Primary education provides the greatest return on investment for individuals and communities and may be related to fertility control and sustainable development. Iran is currently a world leader in improving mother and child health, education and birth control.

In 1986, Wilenski admired the Chinese mobilisation of a large labour force to carry out the slogan 'Put prevention first' in regard to environmental health tasks. He noted the break-up of the medical monopoly and the creation of new health service delivery models designed to meet identified community needs. As a result of the Kyoto Treaty and its related trading and investment aims, a renewal of this approach may now be assisted through more open communication and education technology development for sustainable development. Many industry and community health and sustainable development needs should now be identified, prioritised and met through related projects, openly linked with others. Whether elected or appointed bodies manage organizations, communities or projects, the danger is they may use their office to favour themselves and close supporters rather than governing in the interests of those they ideally serve. Openness and clear accountability are necessary to avoid this. Social administration is ideally envisaged as

open experimentation combining investigation and implementation in a continuing process which attempts to improve all understanding and service outcomes.

Bluescope Steel wrote to the Australian House of Representatives Standing Committee inquiry into manufacturing (2007) that one of its major priorities is ensuring greenhouse gas regulations do not make Australia's steel industry uncompetitive and that China is the world's largest producer and consumer of steel and therefore a major polluter. Business generally abhors government financial strategies which attempt to 'pick winners', but these are often used. Many in manufacturing, no doubt like many academics, think that hopelessly competing for comparatively small amounts of money is a waste of everyone's time and money. The Business Council of Australia wants inefficient taxes and charges on production cut. The Australian Council of Trade Unions stressed that Australian industry should progress 'up the value chain'.

This suggests many opportunities may exist for the design of more direct industry and community based planning, education and related investment to drive sustainable development locally and globally. Many Australian inquiries indicate the benefits of industry and community ownership of social insurance and related investment funds are comparatively clear, as long as those funds are managed effectively and competitively. Combined trading and investment systems for large development projects may be effectively coordinated with government support for rural health, education and other services aimed primarily at the poorest. Australian and Chinese partnerships could now assist attainment of many other regional development aspirations by providing knowledge and skills development openly and broadly for all to use at will.