

**The Ethics of a Sustainable Economy: Implications for Public Policy**

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**Abstract**

The currently dominant neoclassical economic model is not based on modern science or an ethic that adequately considers human-Earth relationships. This thinking and the activity based on it is leading to a dismal future for human life on Earth. It is based on the dominant ethics of utilitarianism and a version of the Lockean social contract. These, and the neoclassical model of economics, need to be replaced if sustainable human living is to be achieved. A steady state economics and an ethic based on the concepts of integrity, intrinsic value, reverence or respect, combined with equity, are required as the fundamental principles of public policy. Some of the implications for this policy in economic measurement; strategies and plans for transition; laws, regulations and taxes; government departments; money supply and banking; investment; energy; rural land use; and immigration and population, are briefly described. These changes are so profound and fundamental that many will find it difficult to move to new ways of thinking and behaving. Yet if a core function of government is to attend to the security of its citizens, these public policy directions are essential.

**Introduction**

This paper is based on a project undertaken recently by Sustainable Aotearoa New Zealand (SANZ) which resulted in the publication *Strong Sustainability for New Zealand: Principles and Scenarios* (Sustainable Aotearoa New Zealand, 2009). The project consisted of three ‘think tank’ workshops that involved over thirty people, followed by a

dialogue day that engaged a further sixty, culminating in preparation of the publication by twelve writers and eight external reviewers. All people involved were knowledgeable about the subject of sustainability and contributed views from a wide variety of personal and professional experiences, while also representing different ages and interest groups.

The SANZ publication proposes the core principles of strong sustainability and offers a scenario of what a strongly sustainable New Zealand would be like, and a possible transition path for its achievement.

This paper draws on that work to first establish that current human living is unsustainable and that the core reasons for this are economic practices along with population growth. The globally dominant economic model is found to be incompatible with sustainable human living. It is observed that the values that underpin the current global economy are restricted to human-human relationships so that the human-Earth relationships that are basic to sustainable human living are essentially ignored. It is argued that a sustainable economy cannot exist while utilitarian ethics and social contract principles dominate. The shift to a sustainable steady-state economy requires ethics based on notions of intrinsic ecological value, equity, and community values. This shift has major consequences for public policy.

### **Unsustainable Human Living**

In order to discuss the principles of strong sustainability, and especially a sustainable economy, it is first necessary to review the concept of unsustainability. This paper acknowledges, without review, that there exists overwhelming evidence that present human ways of living are unsustainable, globally and in New Zealand (Intergovernmental Panel on Climate Change, 2007; Millennium Ecosystem Assessment, 2005; Rockström, et al (2009).

The core reason for the unsustainable state of human living is the degradation of global and local ecosystems, which are complex interrelationships between living organisms (including human beings), atmosphere, soil, and water systems. Ecosystems provide services that are essential to human life, society and economies. These are the ecosystem services that absorb pollutants from human industry and consumption, and the ecosystem services that are core to production of the food, natural fibres, and some of the energy required for human living.

Degradation of ecosystems diminishes their capacity to provide these essential services. The more human ways of living degrade ecosystems, the less able they are to meet human demands for their services. However, human demand continues unabated and even grows, and so the ecosystems are degraded even further, and often faster. This is the core dynamic of unsustainability. The well-publicised phenomenon of global warming and climate change is but one of the outcomes of ecosystem degradation. There are many others that are affecting adversely the condition of oceans, lakes, rivers, aquifers, soils and the atmosphere.

If it continues in this way, current human civilisation will disintegrate because the ecosystem services upon which it relies become greatly diminished. Currently, this is the future for humans on Earth – a dismal prospect indeed.

## **Economic Practices and Unsustainability**

Present human society - in New Zealand and globally - attaches overwhelming importance to economic outcomes and the social wellbeing that is assumed to arise directly from them. Environmental outcomes are accorded much less attention and even this is grudging. It is assumed that economic activity can proceed essentially without regard for ecosystems because most impacts are trivial and that those that are significant can be dealt with through specific policies.

This priority ranking is a human delusion because it is the reverse of the way that the complex ecosystems of Earth's actually work. Everything – including all human activity – occurs within complex natural ecosystems (the biosphere). Human societies lie within the biosphere and are an integral part of it. Because the economy is an aspect of society it also operates totally within and as part of the ecosystems of Earth.

This delusional version of the place of the economy in the systems of the planet leads to a theory and practice of economics that assumes that perpetual growth is feasible because ecosystems and their services are either inexhaustible or readily substitutable. This is the view of the economy held globally by most economists, business managers, and politicians. The public follows their lead.

In stark contrast, the scientifically correct view of the place of human affairs in planetary systems leads inevitably to the need for a steady state economy. The current approach to economics – in New Zealand and internationally – denies and rejects this truth. Thus, many economic decisions – governmental, corporate, household, and personal – result in outcomes that are highly destructive to the long-run wellbeing of humans, as well as to nature as a whole. There is a body of research and knowledge about this developed by ecological economists such as Georgescu-Roegen, Boulding, Daly, Costanza and others (Boulding, 1966; Georgescu-Roegen, 1975; Daly, 1996; Costanza, 1997).

Mainstream neoclassical economic reasoning has four attributes that orient human society towards ecologically unsustainable behavior. One is the belief that perpetual economic growth is feasible, intrinsically good, and even essential. This is actually impossible because the biosphere has finite limits, some of which have already been reached. The second is the assumption that humans are separate from nature and are therefore free to exploit it through economic activity. Actually, people are part of nature, so that through exploiting and damaging nature they are damaging themselves.

A third false concept is that individualistic self-serving human activity will bring best outcomes for individuals and for society as a whole. The reverse is true. To function as responsible members of the ecosystems of which they are a part, humans must act in the knowledge that they are interdependent with each other and with the natural systems of Earth.

The fourth attribute concerns market mechanisms and the assumption about resource ownership. The neoclassical economic model holds that human wellbeing is best served by human individual or corporate ownership of resources and the competitive trading of goods and services through markets. The role of government is minimised, and opportunities for common pool institutions providing cooperative collective use of resources are ignored (Laerhoven and Ostrom 2007). Most of the ecological systems upon which humans depend are in the commons. Hence, the market mechanisms that

are at the core of economic processes offer no guidance for the maintenance of essential ecological systems or for the allocation and utilisation of the services provided by them.

At a deeper level, the theory and practice of neoclassical economics, and the legal and political institutions that support it, hold to a theory of 'general equilibrium' that ignores the view of science that all planetary systems are open, being continually subject to flows of energy and matter, and exist not in equilibrium but in a 'steady state' that is actually very far from equilibrium. Such systems exist in intimate and dependent relationships with their surrounding ecosystems, and are capable of complex forms of behaviour that are vastly different from equilibrium. Thus, the mainstream of neoclassical economic theory and practice continues to adhere to assumptions about planetary systems that are wrong.

The result has been that neoclassical economics, starting from outdated scientific assumptions, has created a vast assembly of theories that have no real basis in fact, but appear very convincing to the scientifically uninformed. By promising outcomes such as continuous growth and infinite substitutability of scarce resources, economists have influenced the political and economic processes of humanity in ways that are now seen as completely at odds to the idea of a resilient and sustainable relationship between humanity and the rest of nature.

A corollary of these erroneous economic theories is that the political economy of capitalism is based on the privatisation of profits by risk-taking owners of capital and by the socialisation of losses. This whole body of belief and practice is at the centre of the reasons why humanity and the rest of nature are currently on a collision course, and why so many governmental policies on the environment - such as on climate change, energy, waterways and soils - are completely failing to address the real issues, let alone incorporate the understandings that might enable realistic solutions to be employed. In some cases, existing legislation could be of assistance but the dominant economic paradigm prevents them from being implemented to provide this.

Strong sustainability is the prerequisite and foundation of any human development, whether social, economic or technological. Strong sustainability means the preservation of the integrity of all ecological systems in the biosphere. Ecological integrity means the ability of an ecosystem to recover from disturbance and re-establish its stability, diversity and resilience. A strongly sustainable human society lives and develops as an integral part of ecosystems that have ecological integrity.

### **The Ethics of Economic Practice**

In addition to relying on outdated science, the current economics is based on inadequate ethics. It relies on a utilitarian ethic. It values resources derived from a Lockean version of the social contract theory. This establishes the primacy of individual and organisational property ownership, and the inviolability of contracts. Neither of these value systems considers adequately the human-Earth relationship.

Utilitarianism states that an action is right when its outcome produces the maximum utility ('a measure of the relative satisfaction from or desirability of consumption of various goods and services') or happiness (Bentham, 1948; Mill, 1998). The unavoidable problem with utilitarianism is that it is used to justify policies and actions that

are immoral. Utilitarianism has been extended to the consideration of animal welfare, but not to any other aspect of nature. It does not provide a comprehensive coverage of moral language and behaviour on which ethical theories need to be based. A major problem with the concept of 'utility' is that it is often impossible to assess even the shorter term consequences of our actions, let alone the longer term impacts. For this reason, the use of the utilitarian ethic in cost-benefit analyses has been shown to disadvantage poor people, future generations, and the environment.

The social contract is the process and outcome of justifying arrangements about natural rights by considering the agreement that would be made among suitably situated rational, free, and equal persons. Natural rights are those rights that human beings are supposed to have before government intervenes. Natural rights, by Locke's reckoning, are life, liberty, health and property. According to Locke, any social contract establishing a government cannot morally be maintained if these natural rights are ignored. For Locke, people come to own previously unowned land by their investment in the labour of their land (Tuckness, 2005).

Locke's social contract theory asserts falsely the notion of natural rights to include the individual right to property. Locke ignored indigenous people's means of owning land. He established this concept of property rights at a time when the world was not overpopulated, and the assumption was made that indigenous people had no prior rights to their territories, so that this could be appropriated by people who had perceived 'more highly civilised' values. Locke's arguments do not provide an adequate conceptual base for modern thinking about property ownership that may be public, communal, or individual. A further major weakness of his theory is that land and resources are seen in instrumental terms (being of value for human purposes only). It ignores the interdependency of humans on other humans, and the interdependency of humans and non-human entities and systems.

### **Ethics of a Sustainable Economy**

If humans choose to have a future society that is strongly sustainable, they will live and develop as part of natural ecosystems. Although human activity will affect these ecosystems, humans will do nothing that upsets their stability, or reduces their diversity and resilience. The societal shift away from self-destruction and towards strong sustainability will require a very different set of societal ethics and values.

The model of selecting core ethical concepts is dependent on distinctions between the three categories of first, everyday discourse; second, schema, such as constitutions, charters, policies, codes of conduct; and third, metalanguage, where theories are proposed using a concept or set of concepts to describe and explain schema and moral language. This has been discussed elsewhere (Howell 2009a) and used to evaluate and prioritise concepts that cover both human-human and human-Earth matters. Any one of the concepts of reverence, respect, intrinsic value or integrity is necessary for an adequate ethical base for a sustainable world, but not sufficient: other notions, such as equity, need to be included in the set of principles. However, the notion of reverence, respect, intrinsic value or integrity takes priority over equity. There are no ecological rights that guarantee human rights. The United Nations Declaration of Human Rights describes relative not absolute rights. From these primary concepts community values can be derived such as mutual respect, fairness, cooperation, gratitude, compassion, forgiveness, humility, courage, mutual aid, charity, confidence, trust, courtesy, integrity,

loyalty, and respectful use of resources (Bachman, M., 2008). The value of local community, with associated benefits of reduced environmental footprints and increased cooperation between people will be supported.

Nature will be valued intrinsically through citizens knowing that their society and its political economy is an integral and interdependent component of nature and the biosphere. People will know that they are personally and collectively responsible for their impact on the integrity of all ecosystems in the biosphere. Great importance will be given on non-material sources of happiness and removing the perceived linkage between success and economic growth. Measures of economic performance such as GDP will be replaced by measures of community wellbeing and the integrity of ecological systems.

If an economic and ethical system based on strong sustainability as described above is selected, then there are a number of public policy changes necessary. It is critical that both the economic and ethical factors are considered together. The neoclassical economic model is incompatible with the ethical principles of reverence, intrinsic value, and integrity. The economic principles of strong sustainability are inconsistent with a utilitarian and Lockean derived social contract ethic. Moreover, the widespread belief that human happiness, employment, wealth and economic growth are inevitably linked must be abandoned. Actually, linking progress with economic growth is a relatively recent belief. Arndt has stated that the perhaps first explicit official announcement in favour of economic growth as a policy objective in any Western country was in 1949 (Arndt, 1978). In calculations for Canada, Peter Victor has shown that growth is not necessary for full employment (Victor 2008). He developed scenarios for Canada in which full employment prevails, poverty is essentially eliminated, people enjoy more leisure, greenhouse gas emissions are drastically reduced, and government debt declines. If it is generally believed that human utility and satisfaction can only be achieved through a growth economy, then promotion of an economy that operates within the capacity of the Earth to support human life will never be achieved (Watts 2009). A human-Earth ethic requires a human-Earth economy.

### **Public Policy Implications**

A number of issues and questions for public policy arise from the above discussion. What would some of the major policies be like if we had an economy and ethic based on the capacity of the Earth to sustain human life? What policies are necessary to move or transition to such a position? What policies should be developed as back- up to cope with situation where it is not possible to achieve a desired economy and ethic, and for preparation for some of the adverse and catastrophic scenarios (Barkham, P., 2009; Hamilton, 2009)? Because of limited space, the focus of the discussion below will concentrate as far as possible on the first question as it applies to New Zealand.

#### Towards a Steady State Economy

In the shift towards strong sustainability, the core public policy issue will be the transition from an ever-expanding economy to a steady state economy. This will be especially challenging because the expectation of economic growth is so deeply imbedded in the current human way of life. However, the field of ecological economics provides a substantial base of knowledge that can guide this process.

## Proper Measures

If humans are to live within the capacity of the Earth to sustain human activity, measures must be developed that describe this capacity and current variations from it. The recent *Report by the Commission on the Measurement of Economic Performance and Social Progress*, includes a review of the research for measures dealing with sustainable development and the environment (Stiglitz, J, Sen, A and Fitoussi, J-P, 2009). Their discussion includes dashboards or extensive sets of indicators; green GDP or NNP, or Systems of Eco-Environmental Accounting (SEEA); Adjusted Net Savings (ANS) put forward by the World Bank; ecological footprints or carbon footprints. The Report recommends building comprehensive indexes focused on the economic side of sustainability, with a set of 'physical' indexes for the environmental dimension of sustainability.

Use should also be made of some of the most promising measures, such as an amended ecological footprint, (Wackernagel, M., Wermer, P. and Goldfinger, S., 2007; Venetoulis, J. and Talberth, J., 2008) and supplemented where necessary with other indicators. Consideration should also be given to the use of the planetary boundaries of nine interlinked environmental subsystems (Rockström, J et al, 2009). It is a misguided belief that the existing GDP should continue because there is not an ideal alternative: policy makers will continue to base decisions on false signals. There is enough evidence about the degradation of the environment and adverse human impact to measure the capacity of the Earth to sustain human life, and to use this in policy formation for the setting of targets.

## Transition Strategies and Plans

Once measures have been established, humans should move to adopt strategies and plans for the attainment of those targets. There is a current handicap at the international level in not having any effective international decision making and enforcement body (Brown, Garver, et al, 2009). Human society is dependent on forums where nations try and reach agreement collectively, and there is no formal mechanism for dealing with failed and recalcitrant states. Hence there is reliance on United Nations agencies or groupings such as G20. To augment or replace these processes there is precedent for an international body with enforcement responsibilities similar to the World Court and the International Criminal Court (Brown et al, 2009), and the International Atomic Energy Agency.

Because of the increasing likelihood of catastrophic effects of climate change and related ecological degradation, responsible and enlightened nations should set up independent strategies and plans, based on a national targets and taking account of their impacts on other nations, and develop policy even in the absence of an international accord.

Moving to a steady state economy will lead to less emphasis on the internationalisation of New Zealand's economy, and more emphasis on the regional and local aspects. Policies will be required to ease adjustment to major declines in some sectors and industries, to encourage reinvention of others, and to incentivise new growth sectors as

the economy adjusts to the drivers of change and to the requirement for sustainable ecosystem footprints. There should be emphasis on the opportunities to develop technologies that save rather than destroy the planet.

### Laws / Regulations / Taxes

The adoption of effective strategies and plans cannot occur in a governance vacuum. Laws and regulations need to be established that provide the boundaries that shape commercial, governmental and civil society's behaviour. New Zealand does not have a written constitution, but there are well established constitutional principles (example: Treaty rights for Maori) that we use. New Zealand has also signed up to various international treaties, declarations, and agreements, such as the International Declaration of Human Rights. These are the rules through which strategies and plans can take effect. Currently they are not based on an ethic for a sustainable economy. Local government in New Zealand is required to take economic, social, cultural and environmental factors into account in their planning, but this is based on a weak and ineffective sustainability model. It should be replaced by a strong sustainability model. Central government should be required to plan and act in the same way.

As an example, Ecuador has a new constitution included a section giving Nature or Pachamama, where life is reproduced and exists, the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution. Article 3 states that the State will motivate natural and juridical persons as well as collectives to protect nature; it will promote respect towards all the elements that form an ecosystem (Community Environmental Legal Defense Fund, 2008). The constitution uses the notion of respect to deal with the human-Earth relationship.

The ethical principles described above need to be incorporated into the basic legal framework of our society, and provide the moral basis for constitutions, regulations and taxes.

### Government Departments

If legal and financial changes as described above are to be introduced, then the major New Zealand government ministries and departments need new directions and different skills. State Services need to change its civil service rules, particularly the moral codes. Treasury needs to have people who have ecological economic knowledge and skills: one option is to carry out a major overhaul of Treasury; another option is to merge Treasury with the Ministry for the Environment.

### Money Supply and Banking

A steady state economy cannot support the current system by which virtually all money is created through the issuing of credit by banks. This is because repayment of debt with interest relies on a further expansion of the supply of money, which requires growth of credit and hence growth of the economy.

Public policy will be required to return the role of money to its essence – facilitation of exchange of goods and services and lending for investment in capital projects. The supply of money will be publicly regulated to support the volume of market transactions.

These policies will initially be limited to the domestic economy and it is acknowledged that the interface with international money systems will be complex in the period before the steady state concept is widely adopted.

### Investment

A new public policy is required to guide both investment by government and non-government institutions. Government investment concerns the purchase and use of resources (such as buildings and electricity to operate these) for its many functions (like law courts, prisons, schools). Policy should ensure that these resources are used within an allocated sustainable ecological footprint. Government investment also deals with Sovereign Wealth Funds. In New Zealand these are called Crown Financial Institutions (CFIs). The current ethical policy is that they should “avoid prejudice to New Zealand’s reputation”. Implementation of this policy has not led to investment in ethical companies from either human-human or human-Earth perspectives (Howell, 2008). Therefore, the ethical frameworks of CFIs must be changed so that they align with strong sustainability.

Non-government investment needs to be influenced so that it meets strong sustainability criteria. It is important to note that the majority of international fund investment that is called socially responsible and environmentally sustainable, does not meet these criteria (Howell, 2009b). Less than 10% of Sovereign Wealth Funds would meet this standard (Economist, May 2007 and Jan 2008; Robinson, May 2008).

A major weakness of these types of investment is that they deal only with the social and environmental impact (and governance characteristics) of investment and then exclude or select certain types of investment or engage to change behaviour. The investment process is based on the assumption that the financial sector and the economic principles on which it is based, do not need to change. During the last few years, this has been shown to be a false assumption. The international finance sector is a complex, interdependent system that is prone to conflicts of interest. Fraud has been rampant in the sale of subprime mortgages. The financial returns to bankers and fund managers do not take into account their performance or the longer-term consequences of what they were doing (Economist, March 2008). While proper regulation should avoid some of the worst extremes, other investment strategies are needed to take a longer and sustainable perspective into account (Howell 2009b).

### Energy

Although the majority of New Zealand’s energy comes from hydroelectric dams, New Zealand is vulnerable to a number of these being subject to increasing drought. There is also substantial potential for development of other renewable sources of electricity, including wind turbines, tidal turbines, and geothermal. The key public policy issue is to ensure that socially and environmentally correct incentives are provided to investors in these alternatives. The current reliance on the corporate investment model that has a short horizon and high discount rates may not be appropriate in a situation where long-term outcomes are paramount.

While renewable sources will provide an increasing proportion of low/no carbon based energy, public policy will also be needed to manage energy demand. All policies need to ensure that energy supply is based on a proper ethical and sustainable human-Earth relationship.

## Rural Land Use

Most of New Zealand's current agriculture and horticulture is based on unsustainable practices that are degrading soils and adding greatly to the disruption of the phosphorus and nitrogen cycles. This disruption is manifested in destruction of the ecosystems of rivers, lakes, and the ocean, as well as contamination of aquifers. This sector also contributes substantial greenhouse gas emissions. Public policy will be required to mitigate these effects and to recover the affected ecosystems. The policies and strategies that are needed to move agriculture to sustainable fundamentals will amount to a transformation of farming systems. Substantial public research and incentives will be necessary.

Further public policy challenges will arise from the need to adapt to the impact of climate change on agriculture and horticulture. A key issue will be the requirement to retire land from production as it becomes increasingly vulnerable to erosion, flooding, saline incursions and drought.

## Immigration Policy and Population Management

New Zealand will require two aspects of public policy that ensures that its human population is consistent with strong sustainability and is demographically stable.

The core is a citizen-led and voluntary approach to manage the birthrate. This will arise directly from the ethical principles required for sustainability. Citizens will understand and accept that human reproduction is not a matter of individual rights but an aspect of societal stewardship.

This approach to birth rate management has been complemented by immigration policy. There will be more pressure from New Zealanders overseas, and foreign environmental refugees and immigrants, to shift permanently to New Zealand. This will increase as parts of the northern hemisphere in particular, become relatively less attractive due to climate changes. Effects on Indonesia and Australia will lead to increasing requests for their peoples to move to New Zealand. An immigration policy is needed to control this pressure, based on the capacity of New Zealand to support its population sustainably, and an analysis of a sustainable agricultural policy.

New Zealand will require a clear policy of accepting immigrants but with numbers limited to the carrying capacity of our ecosystems, especially those that deliver food for human consumption.

## **Conclusion**

During the last four decades or so there have been shifts to an increasingly globalised market-led economy based on a neoclassical economic model that favours privatisation of goods and services, and downsizing the role of government.

President Obama's election has signaled the possibility of a reversal of this trend in the US, with extension to the international arena, but there are still many advocates and proponents of the current neoclassical economic model in positions of power, including roles in Obama's Cabinet. It will not be easy for citizens in the developed world, even in

the more welfare minded European countries, to accept a collective decision making responsibility based on the need for the ecological ethics essential for a sustainable economy, and some of the public policies that flow from it.

Policies and strategies are more likely to work when all the stakeholders are included in the decision making, but it is often a time consuming and lengthy process, and there are many vested and selfish interests. Unfortunately, the world faces a future with a complex sequence of global changes that will take human civilisation outside the range of prior experience in terms of the speed, the magnitude and irreversibility of change, so there is little time for these preferred processes of change

The Intergovernmental Panel on Climate Change states that making development more sustainable by changing development paths can make a significant contribution to climate goals. But changing development pathways is not about choosing a mapped-out path, but rather about navigating through an uncharted and evolving landscape (Intergovernmental Panel on Climate Change, 2007, III, 12, 693). The disruptions that climate change will bring are likely to be greater than the introduction of electricity, the enclosures in Britain in the eighteenth and nineteenth centuries, and the changes made during the industrial revolution. There are some possible lessons from history: some of the former communist countries that changed when the Berlin Wall fell, provide some guide for such a transition (Solyom, 2009). But this was where all parties accepted the need for change. It is likely that more ecological degradation is necessary before significant political will accepts the desired changes. Rapid change is possible in a war (Howell, 2008), but this is dependent on society accepting the seriousness of the threat, and this is not the case currently in New Zealand or internationally. Unfortunately this means that an orderly and planned transition is unlikely. Developing countries are likely to be very badly affected. In developed countries such as New Zealand there is likely to be a significant deterioration and breakdown of the physical and social infrastructure providing the goods and services that human society depends on for life itself. Civil disorder is likely.

This makes preparation and public discussion of policy options all the more critical, so that contingency plans can be prepared to minimise the adverse effects and assist people to cope with the significant disruptions and threats ahead.

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