

January 12, 2015

The Honourable Greg Dewar
Minister of Finance
Manitoba Legislature

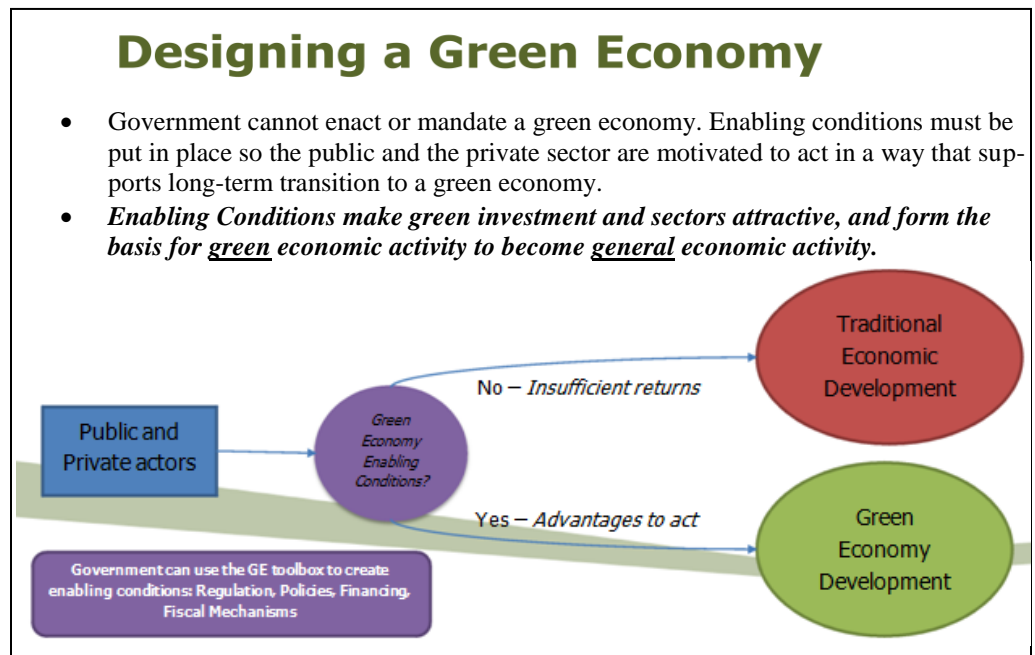
by email: minfin@leg.gov.mb.ca

Dear Minister Dewar:

Re: A Green Budget for a Green Economy

Welcome to your new position as Minister of Finance and thank you for inviting contributions for planning Budget 2015. Green Action Centre is a non-profit, non-government hub for greener living based in Winnipeg and serving Manitoba. Our many activities and concerns are displayed at our [website](#). We frequently comment on policies to realize the goal we share for Manitoba: "to be one of the most sustainable places to live on earth" with the promise that "a strong, resilient green economy will be built to reduce environmental risks and ecological scarcities, while improving well-being and social equity for Manitobans" (*TomorrowNow*, 6-7). As Finance Minister, you have a lead responsibility to explore the implications of your government's commitment to a green economy.

In our experience, Manitobans want to live greener lives and care about the world our children and grandchildren will inherit. But we must be wary about loading too much onto individual actions. A coordinated and integrated approach is needed, including infrastructure as necessary to make sustainable choices possible, along with education, price signals, regulations and incentives to encourage sustainable choices. Individuals are more likely to make sustainable choices if those options are practical, convenient, safe, affordable, efficient, healthy and enjoyable. Some businesses may be guided by a commitment to corporate social responsibility and reputational concerns, but all are driven to maintain profitability within a system of regulations and incentives. The International Institute for Sustainable Development (IISD) describes government's task as creation of the **enabling conditions** for individuals and organizations to make sustainable choices, as depicted in this graphic from a recent workshop.



In our brief we propose observations and recommendations to help move Manitoba's economy from business as usual to green. Many are elaborated in greater detail in [our last budget submission](#), the attached discussion paper *Green Action Centre Policy Framework for Building a Sustainable Manitoba*, and the hyperlinks throughout. Our recommendations are summarized below.

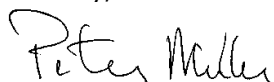
Summary of Recommendations

- a. Include “creating conditions for a greener, more efficient and just economy” as a goal of broad economic and social initiatives, policy advisory groups and financial management priorities.
- b. Create a green economy working group to advise the Priorities and Planning Committee of cabinet.
- c. Make Budget 2015 a green budget that enables a green economy.
- d. Environmental assessment should extend to the agricultural, oil and gas, and mining sectors to insure appropriate practices and strategies to operate non-destructively within nature’s limits and contribute to a more sustainable future.
- e. A new climate action plan is needed to address Manitoba’s major carbon pollution challenge with the heaviest emphasis on the most polluting sectors, transportation and agriculture, and the acceleration in all sectors of energy conservation, efficiency and renewable fuels that don’t increase global emissions. A carbon tax, described in [our last budget submission](#), has proven to [be environmentally and economically effective and politically popular](#) in BC.
- f. Make green economy principles, guidelines and enabling conditions such as the above explicit screens and tools for vetting and shaping government policies and budgets in all areas and reporting progress.
- g. Reduce or eliminate fossil-fueled transportation subsidies by collecting revenues from vehicles and their usage sufficient to reflect the social costs of road building and maintenance and carbon pollution while making a fair contribution to general revenues in support of public benefits. It is inappropriate to add to property or sales taxes to meet transportation infrastructure needs when motor vehicles fall so far short of paying their share of societal costs in general and the costs they impose on society in particular.
- h. Systematically review plans, policies, programs, revenue sources and expenditures to create green efficiencies and synergies in the pursuit of social goals.
- i. The province should empower Winnipeg and other municipalities to raise revenues from motor vehicles to fund transportation infrastructure and to recover the costs of new development through growth development charges.

Our key messages are:

- Integrate green economy goals and enabling conditions into provincial planning, budgeting and governance in all sectors.
- Address the elephant in the room: transportation, which often seems exempt from sustainability considerations and consequently defeats the achievement of climate action goals. Remove perverse subsidies.
- Empower Winnipeg and other municipalities to tax and invest sustainably.

Sincerely,



Peter Miller (p.miller@mymts.net)

for Green Action Centre Policy Committee and Board

CC: Premier and Ministers of Conservation and Water Stewardship; Infrastructure and Transportation; Jobs and the Economy and Winnipeg; Municipal Government; Mineral Resources; Agriculture, Food and Rural Development and Tracy Hucul, Executive Director, Green Action Centre (tracy@greenactioncentre.ca)

A Green Budget for a Green Economy

A submission from Green Action Centre for Budget 2015
January 12, 2015

1. Sustainability is a whole-government, whole-economy, all-sector mandate, but this is not reflected in central guidance documents.

Although CWS Minister Gord Mackintosh has championed the [TomorrowNow](#) initiative, the sustainability and green economy goals make clear it cannot be a policy for his department alone. Indeed Premier Selinger [released the policy](#) and [showcased it at Rio + 20](#) as a Provincial green economic initiative. This echoes the purpose of [The Sustainable Development Act](#) "to create a framework through which sustainable development will be implemented in the provincial public sector and promoted in private industry and in society generally."

Unfortunately this inclusive commitment in principle is not reflected in other central guidance documents of your government. As remarked in [previous submissions](#), Manitoba's 2010 Five-Year Economic Development Plan and the [mandate for the Priorities and Planning Committee of Cabinet](#) make little or no reference to promoting a green economy. The same can be said for the more recent [Five-Year Plan to Build a Stronger Manitoba](#) and the [Financial Management Priorities](#) and [Manitoba Advantage](#) in Budget 2014. One would never know from these documents that sustainability and a green economy are central goals of the provincial government.

Recommendations:

Green Action Centre reiterates the following recommendations to insure that sustainability and a green economy are integrated into government priorities, planning and budgeting.

- a. Include "creating conditions for a greener, more efficient and just economy" as a goal of broad economic and social initiatives, policy advisory groups and financial management priorities.
- b. Create a green economy working group to advise the Priorities and Planning Committee of cabinet.
- c. Make Budget 2015 a green budget that enables a green economy.

2. Environmental sustainability means pursuing economic and social goals within nature's limits.

A central insight of ecological economics is that "the economy is a wholly owned subsidiary of the environment, and not the reverse" (variously attributed to Gaylord Nelson and Herman Daly). At its core, environmental sustainability means not exceeding the carrying capacity of the environment to absorb and process wastes, not exceeding the regenerative capacity of renewable resources and not depleting nonrenewable resources at a rate faster than human invention and investment can produce renewable substitutes, while maintaining ecological functions and biodiversity.¹ In addition, environmental sustainability means reducing wastes and restoring ecosystems to a healthy state where the carrying capacity of natural systems has been exceeded.

On the waste side, Manitoba's environmental regulations, project assessments and solid waste reduction initiatives provide a foundation for addressing local waste impacts, although with solid waste we are starting behind

¹ Goodland, R. and H. Daly. 1995. *Universal environmental sustainability and the principle of Integrity*. In L. Westra and J. Lemons, eds. *Perspectives on Ecological Integrity*. Kluwer, Dordrecht, The Netherlands.

most provinces. A larger challenge is to find sustainable solutions to water quality degradation and failures at water retention to mitigate flooding. The largest challenge is the growing environmental debt from GHG emissions (from Manitoba and elsewhere), whose consequences are already felt and very costly. In Manitoba, [the largest contributors are transportation and agriculture followed by stationary combustion](#).

Manitobans send 0.84 tonnes of waste per capita to landfill and 16.3 tonnes of GHGs per capita to that great dump in the sky – nearly 20 times as much. Manitoba is developing an ambitious [waste reduction plan](#) to halve 0.84 tonnes/capita of landfilled solid waste by 2020. We need an equally ambitious plan for the 16.3 tonnes/capita of GHGs. Unfortunately the invisibility of the latter has meant out of sight, out of mind despite the serious consequences.

On the resource side, Manitoba is fortunate to have renewable hydroelectricity for almost all of its power supply plus fossil-fuel-displacing exports to boot. Moreover hydropower has the potential to backstop other intermittent renewables like wind and solar. As well, Manitoba has a sustainable forest management regime that sets harvest rates within forest regenerative capacities and the protection of biodiversity. However Manitoba's agricultural sector is more problematic because of impacts from waste (e.g. phosphorous and GHGs) and water drainage contributing to flooding, a heavy reliance on non-renewable inputs, and its disruption of biodiversity in the prairies.

Also problematic are the non-renewable oil and mining sectors, which are intrinsically unsustainable by themselves but potentially a contributing part of a sustainable economy to the extent that their waste impacts can be mitigated and they fund resource conservation and eventually their own displacement by more sustainable alternatives. The oil and gas potential is constrained more by GHG emission limits to avoid catastrophic climate change than by available reserves. The difference is [unburnable carbon](#), i.e. stranded fossil reserves that can't be burned if catastrophic climate change is to be avoided. Increasing amounts of oil and gas extraction using fracturing technology are also problematic for a green economy.

Recommendations:

- d. Environmental assessment should extend to the agricultural, oil and gas, and mining sectors to insure appropriate practices and strategies to operate non-destructively within nature's limits and contribute to a more sustainable future.
- e. A new climate action plan is needed to address Manitoba's major carbon pollution challenge with the heaviest emphasis on the most polluting sectors, transportation and agriculture, and the acceleration in all sectors of energy conservation, efficiency and renewable fuels that don't increase global emissions. A carbon tax, described in [our last budget submission](#), has proven to [be environmentally and economically effective and politically popular](#) in BC.

3. A number of widely vetted principles and guidelines for a sustainable society and economy exist.

Manitoba's Sustainable Development Act long ago set out a fairly robust set of [Principles and Guidelines of Sustainable Development](#). The first Principle, and repeated theme, is "integration of environmental and economic [and social and human health] decisions." The first Guideline, "efficient use of resources," promotes economic and ecological efficiency (getting more social benefits with a lower economic cost and smaller ecological footprint) and calls for full-cost accounting that takes into account external social and environmental costs. *In short, sustainability and efficiency are at the core of enduring well-being. At Green Action Centre, we call it "living green, living well."*

In [previous budget submissions](#), Green Action Centre noted that green fiscal measures are designed to promote sustainable behavior by individuals and institutions and help create a more just and sustainable society by:

- i. Making it easier and more rewarding to act sustainably (e.g. free or low-cost recycling and public transportation services);
- ii. Making it harder and more costly to act unsustainably (e.g. by removing perverse subsidies for sprawl and fossil fuel consumption);
- iii. Promoting planning and investments for a more sustainable future (e.g. economically and ecologically efficient buildings, communities, businesses and transportation systems);
- iv. Taking a full-cost accounting perspective in assessing the costs and benefits of actions (e.g. global social, ecological and economic costs and benefits of building, energy and transportation choices);
- v. Other things being equal, having users who impose social costs pay for those costs (user pay and polluter pay by internalizing the social costs imposed); but also
- vi. Insuring that basic welfare and human development needs (e.g. health and education) are provided for all citizens.

Principles (i.) through (iv.) lead to a more sustainable society. Principles (v.) and (vi.) represent two aspects of a just society that need to be reconciled – paying the social costs of one's actions and meeting basic human needs. Despite some potential tension between them, justice requires attention to both.

Finally, the United Nations Environment Program's [Green Economy Initiative](#) provides further resources for designing a green economy. Note in particular a chapter by IISD on [Enabling Conditions](#) for a green economy.

Recommendation:

- f. Make green economy principles, guidelines and enabling conditions such as the above explicit screens and tools for vetting and shaping government policies and budgets in all areas and reporting progress.

4. Address the elephant in the room: Transportation.

Manitoba has maintained a level GHG emissions profile since 1996. This is a testament to both the effectiveness of a number of GHG mitigation initiatives (e.g. standards for new furnaces) and the failure to contain transportation emissions. GHG growth from transportation has negated the reductions in other areas despite the ethanol and biodiesel initiatives. In 2009 the [Vehicle Standards Advisory Board](#) (VSAB) found:

- In Manitoba, light-duty vehicles (passenger cars and light trucks) comprise 15 per cent of all greenhouse gas emissions in the province, and 43 per cent of all emissions from all transportation activities. Between 1990 and 2006, emissions from all light-duty vehicles in Manitoba increased by 21.6 per cent; with most of this increase coming from the light truck category (which includes small vans and SUVs).
- Between 1996 and 2006, the total stock of all light-duty vehicles in Manitoba increased by 37 per cent. The stock of passenger cars has remained relatively flat, while light trucks (including small vans and SUVs) have increased by 88 per cent.
- From 1996 to 2007, Canada experienced a 6.5 per cent increase in total annual light-duty vehicle kilometres traveled; over the same period Manitoba experienced an increase of 27 per cent, the highest among all Canadian provinces.
- From 1996 to 2006, the proportion of Canadians commuting to work by car decreased by 1.3 per cent, in Winnipeg this proportion increased by 1.4 per cent; the largest increase among 35 metropolitan areas surveyed.

- From 1996 to 2006, the number of Canadians using public transit to commute to work increased from 10.1 per cent to 11.0 per cent. In Manitoba, this number declined from 9.8 per cent to 8.9 per cent.

Manitoba's transportation trends are going in the wrong direction, particularly the switch to larger personal vehicles and increased total kilometers travelled. We also note the trends have continued since. Between 2006 and 2012, transportation emissions grew 16% from [7200 kt CO2e](#) to [8325 kt CO2e](#). In the same period, transportation's share of Manitoba emissions grew from 34% to 40.6%.

These negative trends are supported by provincial fiscal policies that are perverse from a sustainability perspective and ignore advice from advisory bodies created by the province. Contrary to sustainable user pay and polluter pay principles, fossil fuelled motor vehicles receive a triple subsidy. 1. Fuel taxes cover less than half the costs of building and maintaining the roads they require (not to mention increased costs for police and medical services). The subsidy from general revenues was increased when the sales tax was raised to cover infrastructure. [Similarly the City of Winnipeg, lacking a means to tax vehicles, has dedicated a portion of property tax increases to lane and road repair.] 2. In the absence of a carbon tax, fossil-fuelled motor vehicles receive a massive subsidy by exemption from the social costs of climate change. 3. Finally, in the absence of a sales tax on fuel, transportation is a major area of commercial activity that fails to shoulder its share of the costs of supporting health, education, welfare and government thereby putting a greater burden on other revenue sources or starving support for other public services or both. As we said on another occasion, [it is time to get cars and trucks off welfare](#).

Note that Manitoba's strategic directions report [2020—Manitoba Transportation Vision](#), the product of extensive public consultation, recommended

In order to achieve sustainable funding for our transportation infrastructure, Manitobans suggested an increase to fuel tax, on the condition that such fuel taxes are directed into a fund specifically dedicated for transportation infrastructure renewal (13).

At our urging, the 2012 Budget made a partial move in this direction with a 2.5 cents/litre fuel tax increase after a two-decade freeze. But a year later in 2013 the user pay principle, endorsed as fair by Manitobans, was passed over in favour of the 1% sales tax increase for infrastructure. With most purchases except fuel and a few items like groceries subject to the tax, the subsidy to drivers thereby increased.

The VSAB report [Moving Forward – Reducing Greenhouse Gas Emissions from Passenger Vehicles in Manitoba](#) recommends measures to help Manitobans to drive less, operate existing vehicles more efficiently, and encourage consumers to purchase low- or zero-emission vehicles. To promote the last of these, they propose a "feebate":

Develop a greenhouse gas reduction based vehicle rebate program that replaces the two-year hybrid rebate program. The program should provide larger rebates for low-emitting vehicles while attaching a surcharge to high emitting vehicles. Financial incentives and/or annual vehicle registration fees linked to GHG emission ratings of existing vehicles should be considered (19).

However the province chose to eliminate the hybrid rebate program without replacing it with the alternative incentives proposed by the VSAB.

In sum, both transportation emissions trends and transportation tax and fee policies that affect those trends have been moving in the wrong direction in Manitoba and contrary to the advice given by two advisory processes.

Recommendation:

- g. Reduce and eventually eliminate fossil-fueled transportation subsidies by collecting revenues from vehicles and their usage sufficient to reflect the social costs of road building and maintenance and carbon

pollution while making a fair contribution to general revenues in support of public benefits. It is inappropriate to add to property or sales taxes to meet transportation infrastructure needs when motor vehicles fall so far short of paying their share of societal costs in general and the costs they impose on society in particular.

5. Manitoba's prosperity is not affordable unless it is green.

A common objection to investing in environmental initiatives is that we can't afford it. After our investments in health, education, poverty reduction, infrastructure renewal, and protection from crime, what is left for the environment? This objection stems from a non-integrated view of the economy and our natural environment. Put together, a number of answers emerge based on concepts of prevention, alternative transportation, efficiency, substitution, stimulus and synergy. Together they imply Manitoba's prosperity is not affordable unless it is green.

- There is a strong case that unsustainable land drainage and climate change intensification are responsible for the huge hits to the provincial economy in recent years causing large and continuing provincial deficits. Nicholas Stern and other economists have argued that the costs of climate mitigation are orders of magnitude below the costs of runaway climate change. In both cases, **prevention is the most cost-effective policy.**
- **Urban and suburban sprawl based on an auto-centric transportation system is terribly costly.** As Bill McKibben reports (*Deep Economy: The Wealth of Communities and the Durable Future*, p.154), "...[A]ccording to a recent World Bank report, cities that emphasize walking, cycling, and public transport spend a far smaller percentage of their total wealth on moving people around than car oriented cities do: only 4 or 5 percent of their wealth is expended on transport compared with up to 17 percent in freeway-dependent cities like Phoenix."
- Where will we get the money to invest in renewables? The [50 by 30 organization](#) answers - we're already spending billions of dollars on gas and petroleum products from Alberta for heat and transportation. **Demand reduction, efficiency and renewable energy investments save on fossil fuel expenditures and substitute local expenditures.** Renewable energy is local energy for Manitoba.
- Moreover, **spending those energy investments in Manitoba stimulates our economy and provides green jobs.**
- The Public Utilities Board's recent [Report on the Needs For and Alternatives To \(NFAT\) Review of Manitoba Hydro's Preferred Development Plan](#) observed that

The capacity savings in the supplementary [15-year Demand Side Management] plan amount to more than 80% of the net system capacity addition from the proposed Conawapa Project. Similarly, the annual dependable energy savings from the Power Smart Plan exceed 85% of the dependable energy output from the proposed Conawapa Project. To achieve these electricity savings, Manitoba Hydro budgets \$822 million, which is less than 8% of the \$10.7 billion cost of building Conawapa (22).

In other words, vigorous pursuit of conservation and efficiency measures can make available for Manitoba use and profitable exports most of the power that Conawapa would yield at a fraction of the cost, saving billions of dollars.

- Finally, **green prosperity means looking for synergistic solutions.** [TomorrowNow](#) rightly highlights the activities of BUILD and its sister social enterprises that have developed a synergistic "successful business model that combines social, economic and environmental objectives" (11). BUILD's founder Shaun Loney speaks of his protégés as "million dollar men," reflecting their costs to society from welfare and a life of crime. Providing an alternative livelihood in energy efficiency is obviously a socially, economically and environmentally preferable alternative.

In the attached discussion paper *Green Action Centre Policy Framework for Building a Sustainable Manitoba*, Harvey Stevens identifies four dimensions of sustainability - environmental, economic, governance and social - and the objectives for each. He proposes a systems view of policy making as follows.

Key to developing a sustainable society is the selection of those policies for each of these domains that contribute to achieving sustainability in the other domains so that the policies are mutually reinforcing and produce a virtuous circle. For example, sustainable economic policies must both protect and strengthen the carrying capacities of the natural ecosystems while, at the same time, generate sufficient government revenues to avoid structural deficits. Similarly, sustainable social policies must avoid incurring large government expenditures that do not support economic development in order to ensure fiscal sustainability.

For governments, this means that policy making must take into account impacts across program areas and seek those policies which provide positive spill-over effects and which minimize negative impacts on other areas.

Recommendation:

- h. Systematically review plans, policies, programs, revenue sources and expenditures to create green efficiencies and synergies in the pursuit of social goals.

6. Manitoba's sustainability is not achievable without a sustainable Winnipeg.

Both Manitoba, in [TomorrowNow](#), and Winnipeg, in [OurWinnipeg](#) and related documents, have made sustainability a core commitment. Yet neither can achieve success without the other, since 60% of Manitobans live in the City and even more in the Capital Region. Winnipeg has elected a new mayor with ambitious plans for rapid transit and other sustainable initiatives. These will require both funding assistance from senior governments and the power to raise revenues sustainably. Yet so far the province has denied requests from the City to raise city revenues from motor vehicles (e.g. higher parking lot revenues, road tolls, fuel tax, registration fees) or from [growth development charges](#) ("let growth pay for growth").

Recommendation:

- i. The province should empower Winnipeg and other municipalities to raise revenues from motor vehicles to fund their transportation infrastructure and recover the costs of new development through growth development charges.

DRAFT PROPOSAL

GREEN ACTION CENTRE POLICY FRAMEWORK FOR BUILDING A SUSTAINABLE MANITOBA

Harvey Stevens

January 12, 2015

DEFINITION OF SUSTAINABILITY

There are many definitions of sustainability and sustainable development and they emphasize different elements, including the following:

- A multi-generational focus by ensuring the needs of current and future generations are met;
- A multi-dimensional focus including social, economic and environmental objectives;
- An acknowledgement of competing needs and trade-offs and the challenge of balancing them while respecting the finite carrying capacity of natural systems and the need to meet human needs within those limits.;
- A maintenance of natural and human-made processes of productivity indefinitely by replacing resources used with resources of equal or greater value without degrading or endangering natural biotic systems. The restoration of natural capital that has been excessively depleted.
- A systems approach to growth and development that manages natural, produced and social capital for the welfare of current and future generations;
- A qualitative improvement in the ability to satisfy wants without a quantitative increase in throughput beyond environmental carrying capacity.

By way of encapsulating these several themes, the United Kingdom's Sustainable Development Commission offers the following summary definition of sustainable development:

“ ... at its core it is an approach to development that looks to balance different, and often competing, needs against an awareness of the environmental, social and economic limitations faced by society. . . the focus of sustainable development is about living within environmental limits and also about ensuring a strong, healthy and just society. “

The commission also developed a set of sustainable development principles agreed to by the several governments of the United Kingdom:

- **Living Within Environmental Limits**
Respecting the limits of the planet's environmental resources and biodiversity – to improve our environment and ensure that the natural resources needed for life are unimpaired and remain so for future generations.
- **Ensuring a Strong, Healthy and Just Society**
Meeting the diverse needs of all people in existing and future communities, promoting personal wellbeing, social cohesion and inclusion, and creating equal opportunity for all.
- **Achieving a Sustainable Economy**
Building a strong, stable and sustainable economy which provides prosperity and opportunities for all, and in which environmental and social costs fall on those who impose them (polluter pays), and efficient resource use is incentivised.
- **Promoting Good Governance**
Actively promoting effective participative systems of governance in all levels of society – engaging people's creativity, energy and diversity.

- **Using Sound Science Responsibly**

Ensuring policy is developed and implemented on the basis of strong scientific evidence, whilst taking into account scientific uncertainty (through the precautionary principle) as well as public attitudes and values.

DIMENSIONS OF SUSTAINABILITY

Building on the above definitional elements and principles, sustainable development involves the following dimensions and an understanding of what sustainability implies and requires for each dimension:

Environmental Sustainability

At its core, environmental sustainability means not exceeding the carrying capacity of the environment to absorb and process wastes, not exceeding the regenerative capacity of renewable resources and not depleting nonrenewable resources at a rate faster than human invention can produce renewable substitutes¹. Regarding the latter, it is important to understand whether natural and human-made capital are substitutes or complements. If human-made capital can replace natural capital, then non-renewable resources can be used up. However, if natural capital cannot be replaced by produced capital then the stock of natural capital has to be maintained. In addition, environmental sustainability means reducing wastes and restoring ecosystems to a healthy state, where the carrying capacity of natural systems has been exceeded. It also means fostering biodiversity.

Economic Sustainability

To be supportive of environmental sustainability, the thrust of economic policy has to be on increasing the efficiency with which goods and services are produced so that waste and pollution are minimized and on emphasizing development and qualitative economic improvement rather than growth and physical expansion, particularly where the size of the economy has exceeded the carrying capacity of natural systems. Building an economy based on non-polluting energy sources that do not destroy natural lands and waters and on the production and sale of non-material services are ways of achieving needed limits to growth.

Key to such a transition is the creation of 'green' jobs which can be defined as jobs which focus on increasing the health of ecosystems and of aiding the economy to live within the finite carrying capacity of natural systems. Thus, jobs which restore ecosystems to health, which help to regenerate natural capital, which increase the energy and material resource efficiency of production processes, which minimize waste products and convert them into useable products are all examples of green jobs.

¹ See, Goodland, R. and H. Daly. 1995. *Universal environmental sustainability and the principle of integrity*. In L. Westra and J. Lemons, eds. *Perspectives on Ecological Integrity*. Kluwer, Dordrecht, The Netherlands.

As well, to be supportive of social and fiscal sustainability, economic policy also has to ensure employment for all who want it and levels of income that ensure economic self-sufficiency of individuals and families as well as adequate government revenues. To achieve such a balancing act, a number of economists have pointed out that there is a need for a macro-economics for sustainability that takes into account resource constraints, the need for high public sector expenditure and investment, lowered levels of consumption and yet an adequate level of demand to ensure employment for those who want it.²

Governance Sustainability

This type of sustainability encompasses three elements: fiscal management, effective policy making and public participation.

Fiscal management is concerned with achieving a balance between revenues and expenditures and avoiding the accumulation of public debt. Key to achieving this balance is having an understanding of the longer-run potential size of the economy and the revenues it can produce so that expenditures can be scaled accordingly and structural deficits avoided.

Effective policy making requires that governments commit to evidence-based policy making and to implementing programs in such a way that they can be evaluated. Only in so doing can the most effective policies be implemented.

Finally, sustainable governance requires that citizens are involved in the political process through voter turnout in elections, participation in developing and providing feedback to government proposals and programs and advocating for required changes.

Social Sustainability

With social sustainability, the core focus is on developing *the capacity* of individuals to be healthy, contributing members of society so that their happiness/life satisfaction is maximized, that they possess the resiliency to optimally cope with disruptive changes in their lives and that they make minimal demands on those publicly-funded health, education, justice and social services focused on rehabilitation. Key to achieving this objective is the strengthening of core social institutions such as the family which play a strong preventive role.

A SYSTEMS VIEW OF POLICY MAKING

Key to developing a sustainable society is the selection of those policies for each of these domains that contribute to achieving sustainability in the other domains so that the policies are mutually reinforcing and produce a virtuous circle. For example, sustainable economic policies must both protect and strengthen the carrying capacities of the natural ecosystems while, at the same time, generate sufficient government revenues to avoid structural deficits. Similarly, sustainable social policies must avoid

² See, Jackson, Tim. 2011. *Prosperity without growth: Economics for a Finite Planet*. Routledge, London.

incurring large government expenditures that do not support economic development in order to ensure fiscal sustainability.

For governments, this means that policy making must take into account impacts across program areas and seek those policies which provide positive spill-over effects and which minimize negative impacts on other areas.

POLICIES AND PROGRAMS FOR ACHIEVING A SUSTAINABLE MANITOBA

Given this understanding of the multi-dimensional nature and substance of sustainable development, there are a range of policies and programs required to make Manitoba a more sustainable society. Some of those policies include the following:

Environmental

Reduce GHG Emissions

At a broad scale, a carbon tax of the kind implemented by the government of British Columbia is needed to reduce GHG emissions. Its carbon tax is broad-based and features a tax rate set at \$30 per tonne of GHG emissions, the revenues from which the government then returns to taxpayers in the form of a rebate to low income households and in reductions to corporate and personal income taxes. If such a tax were in place in Manitoba, it would have raised \$288.6 Million in 2013. The revenues also could be used to fund green infrastructure projects, as is done with Quebec's carbon tax.

For the transportation sector, the strongest growth in GHGs has come from the absolute increase in the number of vehicles on the road and from the increasing proportion of those vehicles being heavy- and light-duty trucks. To address the move from cars to light-duty trucks and the slow rise of fuel efficient vehicles, a feebate should be implemented which imposes a surcharge on vehicles whose rated fuel economy is above a target level, e.g. 5 litres/100 km. and then rebates that surcharge to vehicles whose fuel economy is less than the target level. The feebate could be imposed on all sales of both new and used vehicles. To reduce the use of heavy-duty trucks, measures are required to make rail transport more attractive including restoration of regional rail lines.

Other measures could be aimed at increasing the efficiency of industrial production processes both in terms of the energy used and the raw materials. Here again, economic incentives merit strong consideration.

Reduce level of contamination of lakes, streams and aquifers

As for measures aimed at reducing phosphorus emissions into the streams and lakes, there should be a review of all of the boutique programs being funded and more effort put into addressing the agricultural sources of phosphorous run-off. The province has put a lot of effort into regulating the treatment of manure from the livestock industry and in finding ways to reduce the run-off from fertilizer application. However, more is required such as incenting farmers to reserve land for capturing run-off both to capture the phosphorous and to slow the release of water into drainage ditches, thus preventing downstream flooding.

Reduce levels of waste production and increase levels of recycling

The Province now has Extended Producer Responsibility programs in place for waste oil, used tires, electronics, pharmaceuticals, hazardous wastes, paper and packaging and they seem to be working

well³. However, they are focused almost exclusively on households. Very little is being done to promote and require recycling by the ICI (Industrial, Commercial and Institutional) sector and one of the key road blocks is low tipping fees at the waste disposal sites. It is cheaper to landfill than to recycle for most commercial waste haulers. Thus, higher tipping fees at landfill sites across the province are a key measure.

There are few programs in place for composting. The Province has announced measures to tackle this issue. Green Action Centre is exploring [a social enterprise for the collection of compostable organic waste](#). Curbside composting programs are required to increase the level of composting.

A final challenge is that of finding local ways of recycling the materials collected. Most of the waste packaging and electronics collected is shipped long distances for recycling, thus adding to the level of GHG emissions.

Fiscal

Address Structural Deficits and Public Debt

An analysis is required of the level of *structural*⁴ surpluses and deficits incurred by the Provincial Government over the last 15 years and the future trend. The Parliamentary Budget Office (2010) has produced a methodology for estimating the level of structural surpluses and debts for the federal government. A similar exercise should be carried out for the Manitoba government as it will identify the components that account for the potential output of the provincial economy and determine whether tax increases or expenditure reductions or both are required to address the deficit that exists. Such an analysis is foundational to other policies aimed at increasing income via a carbon and/or other green taxes or reducing expenditures as it will indicate the extent of the deficit and the magnitude of corrective measures required to eliminate it.

Increase the Progressivity of the Provincial Tax System

A review of the current provincial income, sales and property tax system should be undertaken to identify areas for improving the progressivity of the tax system such as a rescinding of the elimination of school tax for seniors.

³ See, <http://greenmanitoba.ca/manitoba-recycles/> for the list of recyclables.

⁴ A structural (permanent) deficit differs from a cyclical deficit in that it exists regardless of the point in the business cycle due to an underlying imbalance in government revenues and expenditures. Thus, even at the high point of the business cycle when revenues are high the country's economy may still be in deficit. The structural component of the budget is a good indication of a government's financial management, as it indicates the underlying balance between long-term government revenues and expenditure, while removing factors that are mainly attributable to the business cycle.

Economic

A broad-based carbon tax that gradually increases in value will do much to increase the energy efficiency of the economy. The provincial government's *Green Economy Initiative* should be reviewed to see how it can be strengthened to promote the creation of green jobs in the province.

Social

Key to ensuring social sustainability is an investment in those programs which increase the capacity of individuals to prosper and achieve happiness and satisfaction. To achieve this, the emphasis of social policy should be on preventive programs targeted to children and adults. Measures aimed at improving the capacity of at-risk individuals to become employable, productive adults could include:

- Introducing an enriched learning curriculum into the licenced child care program, modeled on the Abecedarian program;
- Making early childhood education available to all families,
- Identifying and funding enhancements to the programs being provided by Healthy Child Manitoba;
- Strengthening the efforts of the Employment and Income Assistance program to prepare recipients for employment.
- Reviewing addictions treatment programs for effectiveness and increase funding where needed;
- Identifying best practices for promoting healthy lifestyles and increase funding for preventive health care measures;
- Creating employment opportunities commensurate with abilities.

BUILD and Aki Energy are notable examples of social programs for at-risk or underemployed individuals that provide training to improve employability and create economically and environmentally productive jobs.

Income support programs should feature *targeted* increases to low income individuals aimed at addressing specific gaps rather than a broad-based income support program like a Basic Income and direct most of its investments at improving the chances of children and adults to escape poverty. Targeted measures for increasing the incomes of low income adults could include:

- Establishing a transparent methodology for setting social assistance rates on an annual basis;
- Raising the income assistance rates for the single person with and without a disability;
- Increasing the rent assist budget to 75% of the median market rent;
- Providing a provincial top-up to the federal Working Income Tax Benefit;
- Converting the current system of non-refundable tax credits to refundable tax credits targeted to those with incomes below the poverty line;
- Delivering the Manitoba child benefit via the income tax system rather than the current application process to increase the number of families benefiting from it.

By way of summarizing the foregoing discussion, the following chart itemizes some of the policies required to move Manitoba to a more sustainable footing.

POLICY FRAMEWORK FOR ACHIEVING A SUSTAINABLE SOCIETY

SUSTAINABILITY DOMAIN	SUSTAINABILITY GOAL	SELECTED POLICIES FOR ACHIEVING GOAL
1. Natural Environment	1.1 Reduce GHGs to 6% below 1990 levels	Create a new climate action plan, implement a broad-based carbon tax or increase the excise tax on motive fuels, introduce feebates, provide funding to build a public rapid transit system
	1.2 Reduce Contamination of lakes & streams and aquifers	City of Winnipeg waste treatment upgrades, reduced agricultural run-off.
	1.3 Reduce the generation and disposal of waste	Higher tipping fees at landfill sites for ICI waste, more waste diversion programs.
	1.4 Maintain Provincial Parks in their natural state	Ban on logging and mining in provincial parks
	1.5 Restore organic content to soils and return mine sites to pristine state	Incentives to farmers to increase organic content of soils and implement sustainable agriculture practices.
2. Economy	2.1 Increase the efficiency of production processes (energy & materials)	Broad-based carbon tax with a recycling of revenues via reduced personal and corporate tax rates.
	2.2 Promote local production of goods & services	
	2.3 Create higher-paying & more secure jobs	
	2.4 Create green jobs.	Strengthen the measures contained in the Manitoba <i>Green Economy Initiative</i> .
3. Government/ Political	3.1 Eliminate structural deficits.	Measure the potential GDP of the provincial economy and commit to balanced budgets over a business cycle.
	3.2 Reduce the public debt	
	3.3 Improve Governance	Implement best practices for policy development and program evaluations in government departments. Subject all new policies to a 'sustainable development' screen that looks at the effects across all the dimensions of sustainable development

SUSTAINABILITY DOMAIN	SUSTAINABILITY GOAL	SELECTED POLICIES FOR ACHIEVING GOAL
4. Social	4.1 Reduce poverty & increase financial security	Implement targeted income-support measures for the least-served low income groups. Per capita or income-tested carbon tax rebates to households.
	4.2 Improve physical & mental health	Commit to preventive health programs.
	4.3 Promote early childhood development	Increase budgets for HCMO projects.
	4.4 Promote education and lifelong learning	
	4.5 Reduce addictive behaviours	Review existing programs for their effectiveness and increase funding for rehabilitation programs.
	4.6 Reduce criminal activity	Provide increased funding to diversion and rehabilitation programs.
	4.7 Promote human rights	