

**Development of Environmental Goals and Sustainable Prosperity
Measures for Nova Scotia**

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Nova Scotia's Environmental Goals and Sustainable Prosperity Act

In 2007, the provincial legislature unanimously passed the *Environmental Goals and Sustainable Prosperity Act* (EGSPA).

In addition to setting 21 specific environmental goals, EGSPA has two overarching goals:

The long-term environmental and economic objective of government is to fully integrate environmental sustainability and economic prosperity and to this end to:

- (a) demonstrate international leadership by having one of the cleanest and most sustainable environments in the world by the year 2020; and*
- (b) provide certainty to all sectors of the economy through the Government's economic development strategy entitled Opportunities for Sustainable Prosperity and establish clear environmental goals while improving the Province's economic performance to a level that is equal to or above the Canadian average by the year 2020*

The Nova Scotia Round Table on the Environmental and Sustainable Prosperity was formed in 2008. The Round Table includes 19 members from the legal and academic communities, industry, environment sectors and the deputy ministers from both the Department of the Environment and the Department of Economic and Rural Development. In compliance with the Act, the Round Table will advise on the province's progress in meeting its commitments in the *Environmental Goals and Sustainable Prosperity Act*.

Measuring Economic Progress

In *Opportunities for sustainable prosperity 2006: An updated economic growth strategy for Nova Scotia*, prosperity or sustainable competitiveness "recognizes a need to protect and enhance the distinct quality of life that we cherish here in Nova Scotia. To paraphrase the United Nations World Commission on Environment and Development, sustainable competitiveness 'meets the needs of the present without compromising the ability of future generations to meet their own needs'" (p. 3).

Gross domestic product (GDP) has been the primary indicator to judge economic growth. Developed as a tool to measure the level of economic activity, within the scope of the function it was designed to fill, the GDP is an important economic indicator. It was, however, never intended as a stand-alone measure to serve as a proxy for the overall health of the economy or the well-being of citizens. The GDP does not count any human efforts or contributions which go unpaid,

essential as they may be. It does not consider the loss of environmental resources that may result from economic activity, nor does it consider whether economic activity is the result of destruction due to war or natural disaster or is caused by negative factors such as increased pollution, crime, accidents or health problems, or whether economic benefits are equitably distributed.

Perhaps, even more importantly, GDP can not capture the potential impact of our current policies, our behaviour, consumption and investment on our future wealth and the wealth of future generations.

Step 1 – Selection of Approach

A working group was put together to review various indicators and associated measures that might be suitable for assessing Nova Scotia's economic performance. The preference of the working group was to use a relatively simple domain-based set of indicators as being more accessible to those without a background in economics or statistics.

It was determined early in the process that, at a minimum, each indicator and measure must:

- contain valid and reliable information;
- make sense to the general public;
- be readily available and updated periodically;
- be easily compared to Canada and other provinces;
- be able to show long-term trends.

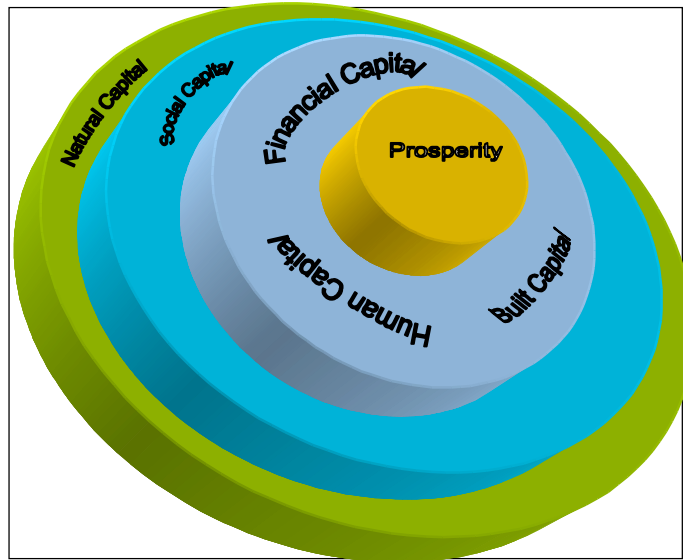
The Five Capitals

For much of Nova Scotia's history, its economy has been immediately dependent on the environment. Natural resources, whether renewable (fisheries, forestry, farming) or non-renewable (coal, gas) have provided employment and supported trade for several hundred years. The environment, however, is much more than natural resources. How can we interpret the contribution of the environment, and not just natural resources, to economic performance?

Nova Scotia's economic growth strategy is based on the concept of five capitals. Natural, financial, built, human and social capital are the building blocks or constituent elements that must interact to form the foundation of a strong economic structure. As stated in the strategy, "Without the foundation, the house cannot be built."

The importance of these five capitals is later reflected in the province's social prosperity framework, *Weaving the threads, a lasting social fabric: Our framework for social prosperity*.

In the model below, the five capitals represent the major categories of inputs into the economy. This provides us with a storyline, allowing us to determine why economic growth is occurring (or not) and whether it is sustainable in the long run.



As shown in the diagram, natural capital is the foundation not only for a healthy economy, but for social, human, built and financial capital. All capitals must be healthy to provide the necessary inputs for sustainable economic activity (prosperity) and the development of a resilient, diverse economy.

It is important to be aware that the capitals do not operate as self-sufficient silos. There are many interactions within and between the capitals and also between the capitals and the economy. This forms a complex web of interrelationships.

Defining the Capitals

Both the economic strategy and the social prosperity framework each used their own definitions of the capitals. The first task of the working group was to develop “final” and more comprehensive definitions.

Natural Capital – the natural environment, made up of dynamic, interacting systems of organisms and the habitats (air, water, land, minerals) on which they depend. Renewable and non-renewable natural resources are components of natural capital that contribute to economic activity and our quality of life.

Social Capital – the relationships and networks that support individual and societal well-being and healthy, prosperous communities. This includes a broad range of formal and informal support systems such as families, friends, communities, governments, institutions, organizations and associations.

Built Capital – manufactured physical assets—equipment, technology, and infrastructure—that support productive economic and social activities. This includes a broad range of public assets (e.g., transportation networks, educational facilities) and private assets (e.g., factories, housing and infrastructures for energy and communications)

Human Capital – the capacity of individuals to participate actively and productively in society and the economy. Individual capacity includes health, skills, knowledge, creativity, education, training and experience.

Financial Capital – the funds available for public and private sector investment in business activity, research and development, and social programs and services.

These five definitions were refined by a sub-committee of the sustainable measures working group, who reviewed the definitions developed for the economic growth strategy and sustainable prosperity framework, the definitions by Forum for the Future, and checked terminology with accepted economics-based definitions.

Step 2 – The Indicator Framework

Indicator sets may be organized according by domains, which are often selected to reflect the key areas of concern of stakeholders or citizens. A number of indicators are selected to measure the areas of concern in each domain.

In this framework, the capitals serve as domains, with stocks and flow very approximately interpreted as “What do we have?” and “How do we use it?”; a third category, “Is it sustainable?” is added. The framework allows the indicators for each capital to be presented in context with all the other capitals and with GDP.

Capital	What do we have?	How productively do we use it?	Is it sustainable?
Natural			
Social			
Human			
Built			

Financial			
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The framework itself can be adapted to a number of situations:

- It could be developed with outcome measures to assess performance
- It can be adapted for use at the provincial, community or organization level
- It can be adapted to different target audiences through the selection of measures meaningful to the audience.

The measures selected will need to be representative of overall trends within a capital. This can be achieved by comparing various measures and by selecting measures that have a high degree of interconnectedness with other elements of the capital. An example might be ground water levels in natural capital.

Step 3 – Development of Interim Measures

Provided the measures selected for each capital meet the requirements for each column, there is considerable flexibility in what measures can be used. These can be adapted for the intended audience and the situation.

To meet EGSPA requirements, measures will be chosen to reflect “high-level” economic, environmental and societal conditions. These are not intended to be performance outcome measures. Even though government actions may not have a direct or strong effect on these measures, nevertheless, it describes the situation as it is.

The working group is in the process of finalizing a set of interim measures. This has proved to be challenging. There is limited data available, especially as the committee is limited to indicators that describe trends for each province.

Step 4 – Validation and Feedback

When an indicator framework is constructed top-down, so to speak, where is the space for stakeholder input?

Once approved by the Deputy Ministers’ Forum on Sustainable Competitiveness and the Round Table on Sustainable Competitiveness, the measures will be published in the EGSPA annual report. Public feedback will be invited. Options being considered include the solicitation of comments and feedback from interested members of the public through a web-based platform.

One challenge has been aligning input on the indicators with an understanding of the concept of the five capitals. In fall 2009, a group of Master’s-level students from Dalhousie University’s Management program, developed a workshop to

both educate the public and facilitate public input from interested groups and organizations. The key workshop outcomes were to provide participants with an understanding of what the five capitals are, how they are interdependent and their relation to prosperity and economic performance.

As part of their approach, the students created a large set of cards, each with a drawing or photograph of people, objects and situations that fell under one of the five capitals.

Each participant is to select their own set of cards from the table that best exemplifies their vision of sustainable prosperity. This should be completed quickly; i.e., within 3-5 minutes. Assure participants that if they cannot find an image card that they think is representative of their vision, they can draw their own on blank cards. They can pick as many cards as they like.

Participants then work as a group to arrange their cards on a table or wall to represent the group's vision of sustainable prosperity (15 minutes). Additional cards can be selected if required. The arranging (vision mapping) exercise should be stopped after 15 minutes. (Bonnell et al, 2009.)

The feedback from a pilot workshop was positive, and the student-designed workshop may be adapted for practical use.

References

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