PAQS 2018 – SYDNEY AUSTRAILIA

SUSTAINABILITY COMMITTEE REPORT

SUBMITTED BY IAN DUNCAN – CANADIAN INSTITUTE OF QUANTITY SURVEYORS

Introduction

Since the establishment of the sustainability committee it has been understood that the main focus of the subject matter in the reporting has been the Sustainable Construction. This includes the use of environmentally friendly materials, energy efficiency, proximity to public transport, ventilation, waste management etc.

One cannot, however, ignore the broader definitions which includes environmental, economic and social sustainability which are, in many ways, controlled by the policies established by officials we elect to our governments. Essentially we control our own destinies and those of our descendants.

In my research on line I came across an article on the University of McGill website named **"What is Sustainability?**" This article was provided by University of Alberta office of sustainability. Please find a copy attached which I think you will find useful.

Canadian Governing Bodies

Canada has three levels of government. We have the Federal government which represents National interests. Then we have Regional or Provincial Governments which govern the affairs of the Provinces and Territories. At the local level we have the Municipal Government which represents the local interests of each city, town or municipality.

Each three of these levels of government get involved, in some way, in effecting sustainability in the country.

Sustainable Construction

In Canada we have a National Building Code and many Provinces have their own regional or Provincial Building Code. The local Municipalities employ the Building Officials who are responsible to issue Building Permits and insure code compliance.

Over recent years we have seen Positive Trends emerging from all levels of construction practices.

Building code revisions have recognised the need for change based upon emerging sustainable initiatives such as:

Increases in levels of thermal insulation values in order to conserve energy. (Very important in colder climates).

Because of these increasing levels of if insulation and the move to reducing air infiltration through doors and windows buildings have become tightly sealed with the risk of not having enough ventilation or oxygen to sustain life. The Ontario Building code has, for example a relatively new requirement for all

residential buildings to include for a 24 hour Heat Recovery Ventilation System installed to ensure adequate ventilation.

Many cities in Canada have introduced their own Green Building Policies which include specific requirement over and above those of the building codes. Examples of these requirements include:

Green Roofs to new buildings.

Bird glass to the upper levels of high rise buildings in cities like Toronto. This is the introduction of fritted or embossed glass to the window at the higher levels to discourage migratory birds flying into them. There are literally thousands of birds which die every year through not recognising that the glass is showing just a reflection of the sky.

Storm water management systems which restrict the flow of storm-water and hence prevent erosion of rivers and streams.

There is an increasing trend to increase the number of Net Zero Energy Buildings being constructed. In some regions Net Zero is being used as a marketing tool by developers of new homes.

LEED Certification through the Canadian Green Building Council is being more and more recognized as having long term advantages in energy savings, enhanced working conditions and reduced absenteeism by workers. Even though there is an initial cost premium in adopting LEED principles when constructing a building developers are finding that they are often able to command premium rents for these more ecofriendly structures.

One example of what Canadian cities are doing for sustainable building practices is the City of Vancouver Land Use and Development Policies and Guidelines. (See copy attached).

Overall, it would appear that the sustainable building initiatives are being made by Cities across Canada which is most laudable.

Elephants in the Room

Canada likes to be thought of as being environmentally responsible and caring nation. We do have our fair share of tree huggers and environmental activists, many of whom do influence policy changes for the good of the planet in the name of sustainability. While sincere efforts are being made for sustainable policies at the municipal level there are some disturbing issues at the National and Provincial level that exist and although many are obvious, the environmental impacts are often ignored.

Unfortunately we do have some fairly substantial “Elephants in the Room” which contradict the Nation’s Green Image.

Alberta Oil Sands

The largest of these are Alberta Oil Sands which continues to wreak havoc on the environment. At PAQS congress in Edmonton in 2008 one of the optional activities was to take a flight over the Oil Sands to view the open pit mines. Soon after that congress tours or the Oil Sands ceased and observation flights restricted due to the negative publicity.

Rising production of tar sands oil is the biggest driver of the increase in Canada's greenhouse gas emissions.

Linked to the oil production is the ongoing planning of the proposed oil pipelines across to the Pacific Coast and down to Texas which have been recently approved by the Canadian Government after facing severe opposition from the Provincial Government of British Columbia, the indigenous population of the region and environment groups across the country.

Syncrude Aurora Oil Sands Mine/Credit: Elias Schewel. Hell on Earth

Oil, gas and coal are multi-billion dollar businesses, yet every year fossil fuel companies get billions in tax breaks and handouts. In a world that's shifting to cleaner sources of energy, those subsidies don't make sense—especially when they work against the other actions we're taking to fight climate change.

Prime Minister Justin Trudeau and his government have promised to stop subsidizing fossil fuels in Canada. But the federal government's latest budget actually locked in some fossil fuel subsidies for another 10 years. The same Government purchased all interests in the TransCanada Keystone and overruled opposition from the Provincial Government of British Columbia to push the project through all in the name of the mighty dollar.

Asbestos

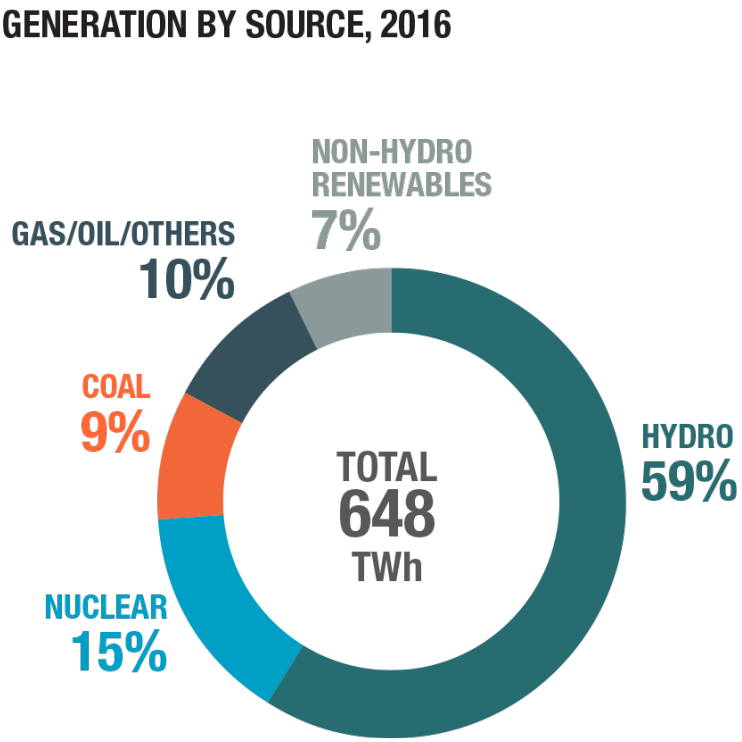
I was surprised to discover that it was only this year, 2018, that laws came into effect to ban the mining of Asbestos in Canada and use it in the manufacturing of building products. Although it has been illegal to use asbestos in building products since the 1970's. It appears that it was unsafe for Canadians but it did not matter if Canada exported it elsewhere.

Electrical Power Generation

Electrical Power Generation policy in Canada is, frankly, a mess.

In Canada the slang term for electrical supply is "Hydro" So when you get your bill from your local electrical provider it is your "Hydro Bill" This is probably due to the fact that the majority of the electrical power generated (almost 59%) is from Hydro Electric dams which is very sustainable. There is still 34% of our power generated from non-sustainable sources such as Nuclear, Coal and Gas. Of the 7% non-hydro renewables we have wind, solar and tidal sources of energy.

You can see that Canada still has a long way to go. In fact economic forces and subsidies on fossil fuels have stalled the investment of wind and solar power.



Carbon Taxes and Environmental Subsidies

Three of the major provinces Alberta, Saskatchewan and Ontario are going up against the Federal Government's carbon tax policies which are designed to reduce carbon emissions.

The new PC provincial government of Ontario has cancelled the rebate incentives on the purchase of electric and hybrid cars. They are also cancelling vehicle emission test on private vehicles. Subsidies on energy efficient appliances, furnaces, home solar and wind generation are all being cancelled.

South of the Border

Notwithstanding the environment failings of Canada, to me, the more terrifying developments are those emerging from our neighbours from the South, the USA, and the current White House appear set on accelerating the demise of the planet.

Some of their policies affect me directly, such as the return of coal mining and its use in manufacturing directly down wind of my home in Ontario.

In 2017 the Trump administration proposed a 31% cut to the EPA's budget to $5.7 billion from $8.1 billion and to eliminate a quarter of the agency jobs. However, this cut was not approved by Congress.

The USA withdrawal of the Paris Agreement this year is also of great concern for The North American continent and the world. Luckily the rest of the world are not following their example.

Donald Trump has begun the process of rolling back carbon pollution standards for vehicles following a meeting with automakers in Detroit, Michigan.

The list continues while storms increase in intensity, seas rise and the planet warms.

Respectfully Submitted

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What is sustainability?

Sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs. In addition to natural resources, we also need social and economic resources. Sustainability is not just environmentalism. Embedded in most definitions of sustainability we also find concerns for social equity and economic development.

Where does the term come from?

While the concept of sustainability is a relatively new idea, the movement as a whole has roots in social justice, conservationism, internationalism and other past movements with rich histories. By the end of the twentieth centuries, many of these ideas had come together in the call for 'sustainable development.'

The Bruntdland Commission

In 1983, the United Nations tapped former Norwegian prime minister Gro Harlem Brundtland to run the new *World Commission on Environment and Development*[1]. After decades of effort to raise living standards through industrialization, many countries were still dealing with extreme poverty. It seemed that economic development at the cost of ecological health and social equity did not lead to long-lasting prosperity. It was clear that the world needed to find a way to harmonize ecology with prosperity.

After four years, the "Brundtland Commission" released its final report, *Our Common Future*. It famously defines sustainable development as:

> ***development that meets the needs of the present without compromising the ability of future generations to meet their own needs.***[1]

The Commission successfully unified environmentalism with social and economic concerns on the world's development agenda.

Sustainability is a holistic approach that considers ecological, social and economic dimensions, recognizing that all must be considered together to find lasting prosperity.

Did you know?

Adopting sustainable practices, whether large or small, can have significant impacts in the long run.

If every office worker in the United Kingdom used one less staple a day by using a reusable paper clip, 120 tonnes of steel would be saved in one year.[2]

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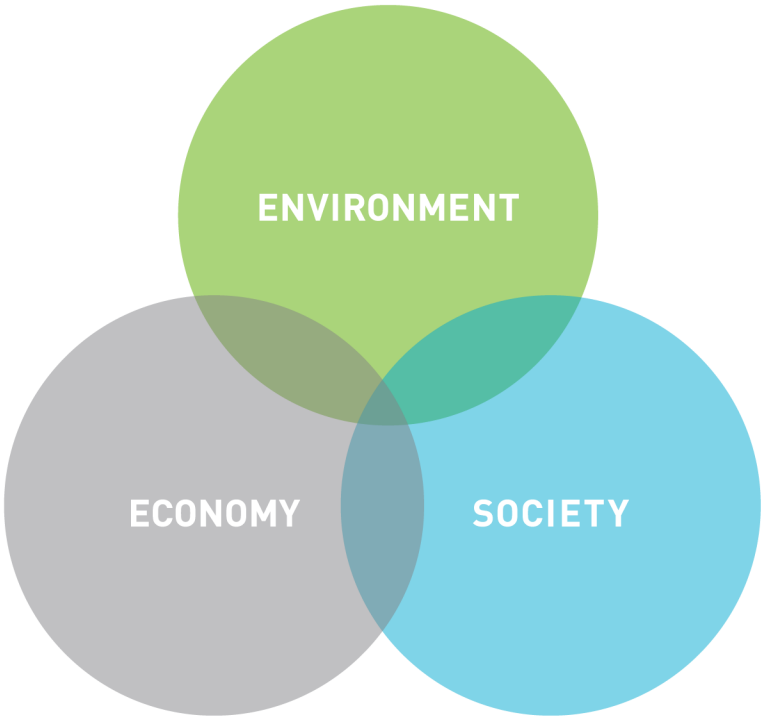
Three pillars of sustainability[3]

What would a sustainable world look like?



Environmental Sustainability

Ecological integrity is maintained, all of earth's environmental systems are kept in balance while natural resources within them are consumed by humans at a rate where they are able to replenish themselves.

Economic Sustainability

Human communities across the globe are able to maintain their independence and have access to the resources that they require, financial and other, to meet their needs. Economic systems are intact and activities are available to everyone, such as secure sources of livelihood.

Social Sustainability

Universal human rights and basic necessities are attainable by all people, who have access to enough resources in order to keep their families and communities healthy and secure. Healthy communities have just leaders who ensure personal, labour and cultural rights are respected and all people are protected from discrimination.

The world community adopts sustainable development

1979
First World Climate Conference opens up the science of climate change

1987
Brundtland Report consolidates decades of work on sustainable development

1992
Rio Earth Summit rallies the world to take action and adopt Agenda 21

1993
Convention on Biological Diversity puts the precautionary principle to work

1997
Kyoto Protocol takes the first step toward stopping dangerous climate change

2000
With Millennium Development Goals, social justice meets public health & environmentalism

2006
Al Gore brings climate change to the mainstream with *An Inconvenient Truth*

2012
Rio+20 takes stock on 2+ decades of efforts at sustainable development

Sustainability at the University of Alberta

The definition of sustainability is broad, and the world is a big, diverse places. For sustainability to remain a relevant, useful tool, it is important that it adapt to the local context. In 2010, the Academic Advisory Committee for the Office of Sustainability at the University of Alberta put together a working definition of sustainability for our institution.

Sustainability is the process of living within the limits of available physical, natural and social resources in ways that allow the living systems in which humans are embedded to thrive in perpetuity.

The University of Alberta is committed to a continuous effort to instill sustainability into the many aspects of university life, on our campuses, in our institutions, and in the larger community of which we are part. Sustainability is rapidly making its way into teaching and learning, research, outreach, and the operations that support them.

UAlberta's Sustainability Plan

In 2012, the university crossed a major milestone by approving its first Sustainability Plan. It collates the many strategic goals, initiatives and practices that will guide the university toward sustainability leadership. A variety of different processes plans and people contributed to the development of the Sustainability Plan, including student, staff and faculty engagement at many levels. For example, the plan followed an award-winning student-initiated public deliberation with all stakeholders on campus called Deliberation on Campus Sustainability. The document itself is a comprehensive guide, but also an engine for discussion to drive sustainability forward into the future.

Why sustainability?

The motivations behind sustainability are often complex, personal and diverse. It is unrealistic to create a list of reasons why so many individuals, groups and communities are working towards this goal. Yet, for most people, sustainability comes down to the kind of future we are leaving for the next generation.

Sustainability as a value is shared by many individuals and organizations who demonstrate this value in their policies, everyday activities and behaviours. Individuals have played a major role in developing our current environmental and social circumstances. The people of today along with future generations must create solutions and adapt.

"Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has."

– Margaret Mead

Sources:

1. "Our Common Future: Report of the World Commission on Environment and Development". UN Documents. n.d. Web. Retriev ed 27 June 2013. < http://www.un-documents.net/ocf-02.htm>

2. Horton, Jocelyn ed. "Mad About ... Tropical Rainforests." Friends of the Earth. Jan 2003. Web. Retrieved 27 June 2013. < http://www.foe.co.uk/resource/factsheets/rainforest_mad_about.pdf>

3. United Nations General Assembly "48. Sustainable development: managing and protecting our common environment "2005 World Summit Outcome. 24 October 2005. Web. Retrieved 27 June 2013. < http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N05/487/60/PDF/N0548760.pdf?OpenElement>