

## Business as Usual?

These findings of the 2013 UN Global Assessment Report on Disaster Risk Reduction may be of interest to your business:

- **The globalization of supply chains led to new vulnerabilities.** The 2011 tsunami in Japan resulted in global parts shortages causing 150,000 fewer Toyota automobiles to be built in the USA, and production reductions of 50% in China and 70% in India. Toyota alone lost US\$1.2 billion in revenue.
- **Disasters directly impact business performance and sustainability.** Kobe was the world's sixth busiest port until the 1995 earthquake. It has been unable to recover despite massive investment in reconstruction and improvements, and in 2010 still ranked in 47<sup>th</sup> place.



- **In the Americas less than 15% of small and medium enterprises with fewer than 100 employees have a business continuity plan in place. They are at particular risk of losing most if not all of their business capital.**
- **Most disasters that could occur have not happened yet.** Globally US\$71 trillion in assets are exposed to 1 in

250 year earthquakes. The expected annual cost from earthquakes and cyclone damage is US\$180 billion.

The **business case** for stronger disaster risk management:

- **Reduces Uncertainty and Strengthens Confidence:** Orion invested US\$6 million in seismic protection in New Zealand that saved the company US\$65 million.
- **Cost Savings:** Preventative investments by Mexican fishermen saved each entrepreneur US\$35,000.00 during Hurricane Wilma in 2005.
- **Value Creation:** An Economist Intelligence Unit survey records that 63% of businesses see opportunities to generate value from disaster risk reduction.

**Some effective risk management strategies include:**

- 1) **Avoiding** regions known to be exposed to natural hazards and suppliers who are not risk resilient;
- 2) **Reducing** the impacts of disaster risk through business continuity and emergency planning;
- 3) **Sharing** the risk with third parties such as insurers, suppliers, buyers, peers and public institutions;
- 4) **Accepting** residual risk based on the company's risk appetite.

Business attitudes are changing towards disaster risk management. **The full report is available at:**

<http://www.preventionweb.net/english/hyogo/gar/2013/en/home/index.html>

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[www.biocentric.ca](http://www.biocentric.ca) or call Chris at **604-328-7253**

## **\$9.5 Billion Price Tag for Sea Level Rise Adaptation in the BC Lower Mainland**



Sea level rise is accelerating. It is influenced by global effects: melting of glaciers and ice caps, as well as warming of the upper ocean; and local effects: vertical movements of the land due to plate tectonics. **It is projected that a rise of 45 cm in sea level by 2070 could put at risk 150 million people and US\$35 trillion in assets in just 20 of the world's most vulnerable and fastest growing port cities.**

It was projected that a 100 year storm surge which was expected to start occurring every 3 to 20 years after a 30 cm rise in sea level would cost New York City \$5 billion in direct damages. The storm surge damage in New York City resulting from Hurricane Sandy in 2012 is **now estimated at US\$42 billion.**

**Estimates of mean sea level rise by 2100 for the BC coast range from 80 cm in Nanaimo to 120 cm in the Fraser Delta. Potential impacts of sea level rise in BC include:**

- Frequent & extremely high water levels in coastal areas
- Increased loss of property due to erosion and flooding
- Increased risk to coastal infrastructure, as well as increased maintenance and repair costs
- Loss of habitat and reduced biodiversity
- Saltwater intrusion into coastal aquifers
- Loss of cultural and historic sites

**In BC 59 municipalities and 14 regional districts will be vulnerable. Some have large populations, significant manufacturing capacity and some of the largest ports (marine & air) and rail/truck distribution hubs in Canada.**

**The responsibility for coastal flood management except on federal lands has abrogated over time from the federal government to the provincial governments and then down to the regional districts, municipalities and private landowners.** To adapt to the challenges facing the province, the BC government has supported stakeholders in their efforts against sea level rise by providing a Sea Level Rise Adaptation Primer. They have also provided local governments and land management authorities with a series of technical studies to assist practitioners in coastal flood plain mapping, sea dike design, and land use planning. For all detailed information please see:

[http://www.env.gov.bc.ca/cas/adaptation/sea\\_level.html](http://www.env.gov.bc.ca/cas/adaptation/sea_level.html)

**In the most recent technical report the cost of implementing adaptation to sea level rise in the lower mainland from the ocean up to the Port Mann Bridge by 2100 is estimated at CAD\$9.5 billion.** This report does not account for the cost of protection of other BC coastline at risk.

**Vulnerable investors, businesses and property owners will want to know what their local municipality or regional action plan is, how it will be paid for, and what the compensation will be for property and lost business should an event occur.** Will carbon emitters & carbon exporters help pay for these new protection measures or will municipalities, businesses and property owners be left with this additional tax burden? What financial support or compensation can be expected from insurers, the Province and the government of Canada and under what conditions?

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