



A framework for cumulative effects in HIA

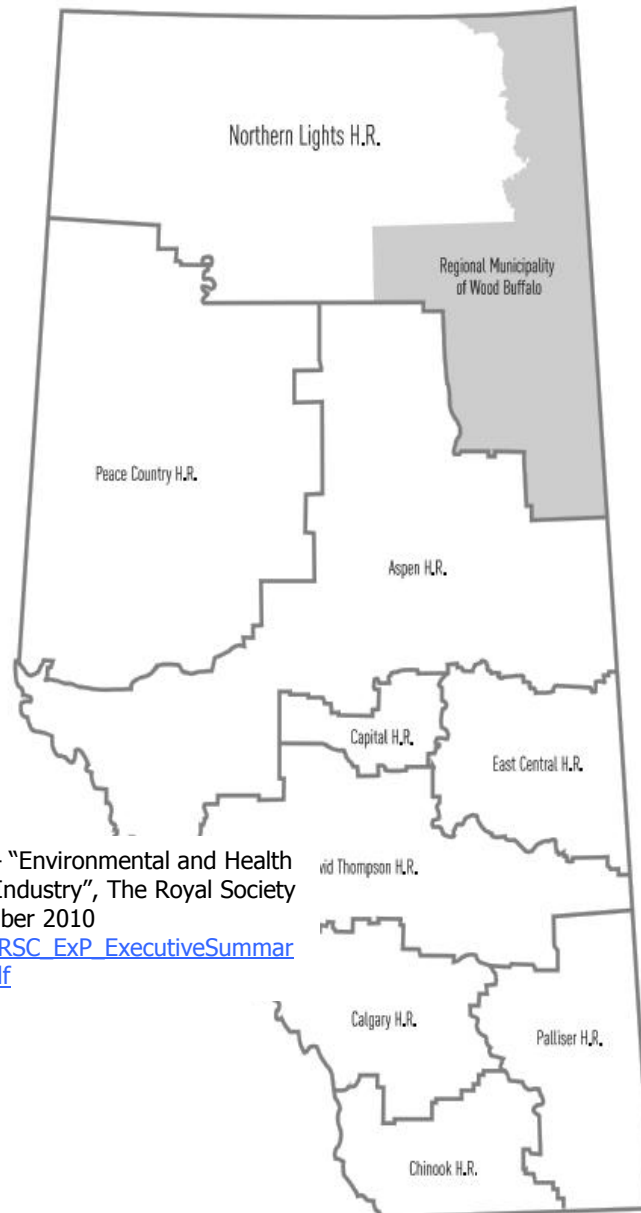
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www.BirleyHIA.co.uk

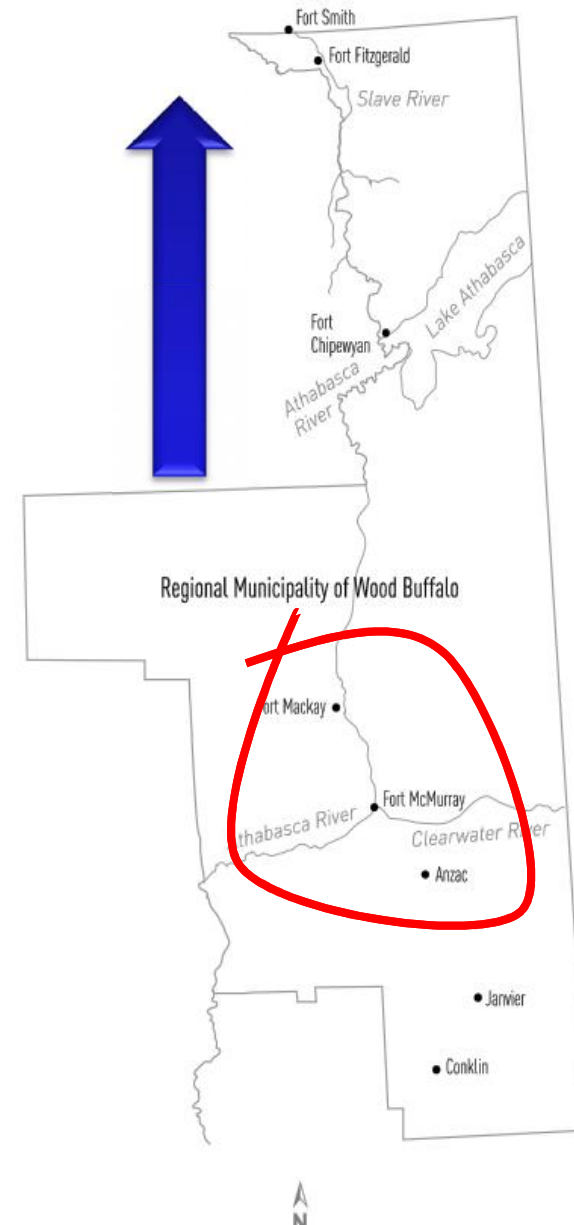
#iaia13



Bitumen sands case study Alberta



Royal Society of Canada 2010 – “Environmental and Health Impacts of Canada’s Oil Sands Industry”, The Royal Society of Canada Expert Panel, December 2010
www.rsc.ca/documents/expert/RSC_Exp_ExecutiveSummary_ENG_Dec14_10_FINAL_v5.pdf



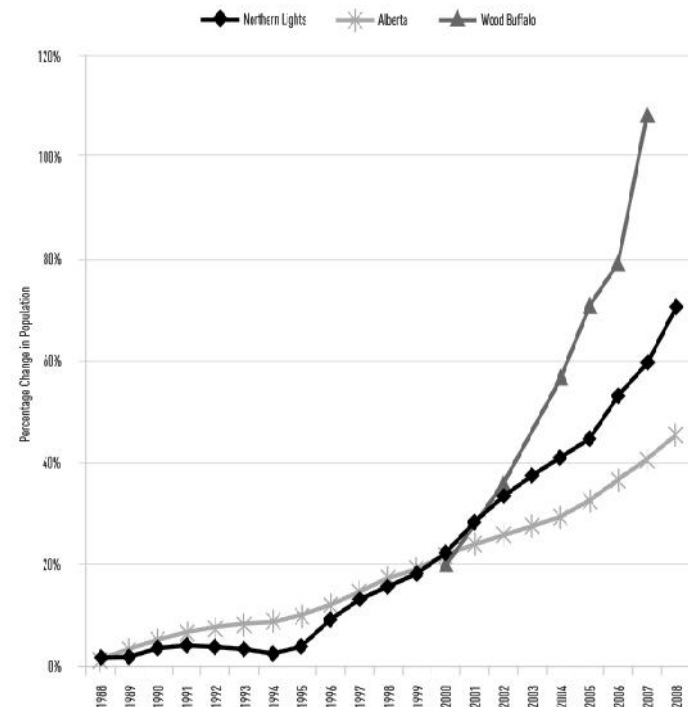
Framework cumulative impacts

		Mitigation by		
Scale	Examples	Project owners/business	Governments	Civil society
Local	Boom town			
Regional	Resource curse			
Planetary	Planetary boundary exceedances			






Examples of local cumulative impacts

- Boom town effects
- Influx
- STIs
- Inflation
- Falling medical services
- Road Traffic Accidents
- Drug and alcohol
- Homicide
- Pollution

Figure 10.3 Percentage change in population between 1989 and 2009, in the Northern Lights Health Region (NLHR), Alberta and in the Regional Municipality of Wood Buffalo (RMWB)

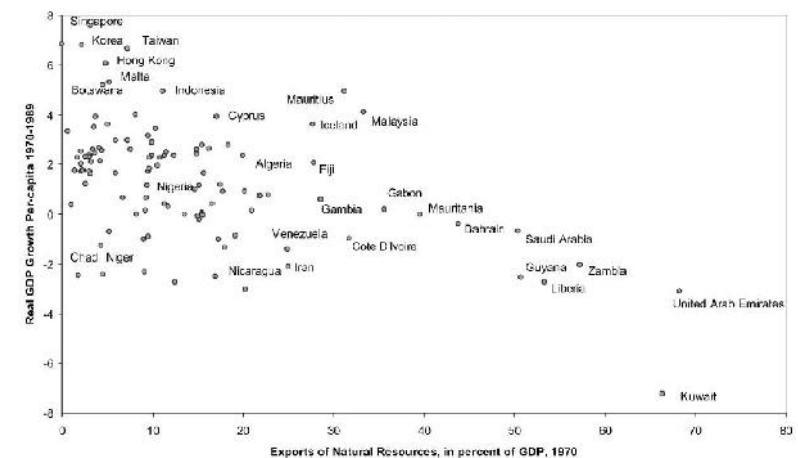


Regional cumulative impact: Resource curse phenomena

-  Rising inequality
-  Falling accountability
-  Inflation
-  Corruption
-  ...

J.D. Sachs, A.M. Warner / European Economic Review 45 (2001) 827–838

829

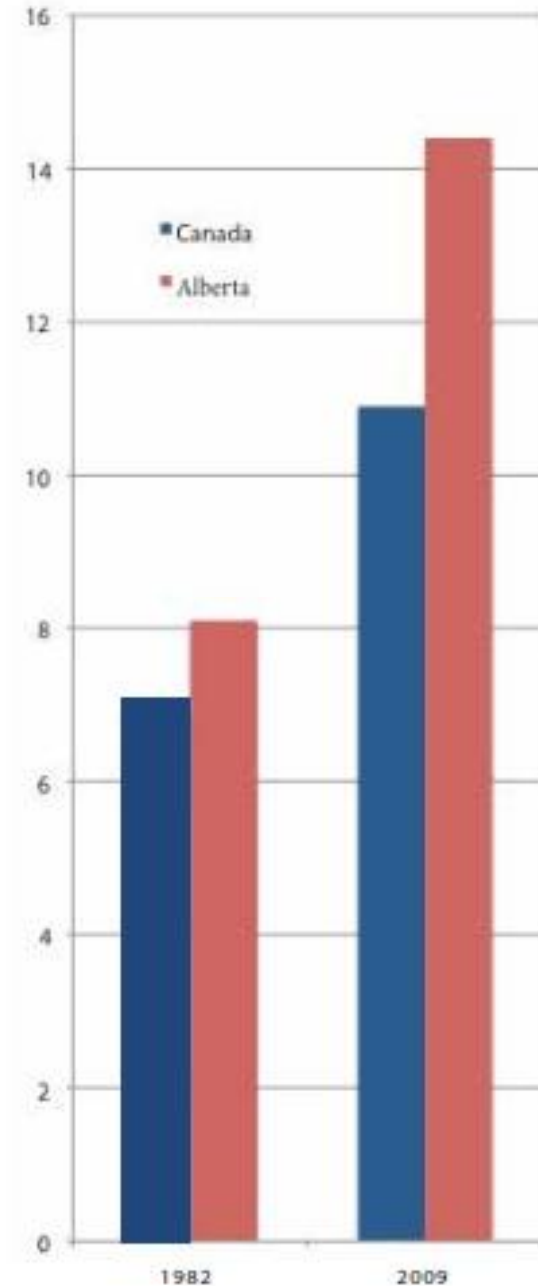


Growing inequality in Alberta

Share of income of top 1% earners

1982	8.1%
2009	14.4%

FIGURE 5 | Top 1 percent share of pre-tax income



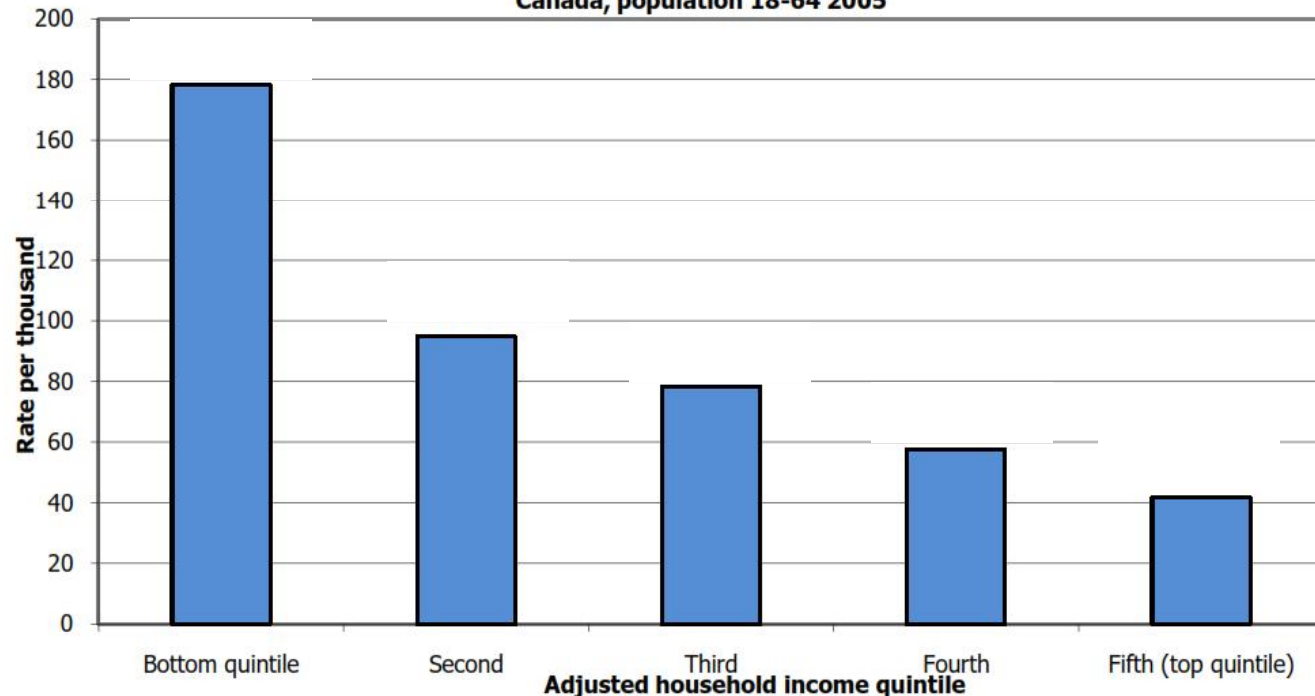
Gibson D, 2012, A social policy framework for Alberta: fairness and justice for all.
http://parklandinstitute.ca/research/summary/a_social_policy_framework_for_alberta/

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Inequality and self-reported health, all Canada

Figure 1: 'Poor' or 'fair' self-reported health, per thousand population

Age adjusted rates, by adjusted household income quintile
Canada, population 18-64 2005



www.wellesleyinstitute.com/publication/poverty_is_making_us_sick_a_comprehensive_survey_of_income_and_health_in_canada/

Planetary cumulative impacts

Exceeded safe boundaries



Biodiversity



Water scarcity



N and P cycles







Climate change

- Amplifying existing health risks and health inequalities




Mitigation

		Mitigation by		
Scale	Examples	Project owners/business	Governments	Civil society
Local	Boom town	Countering misinformation		
Regional	Resource curse			
Planetary	Planetary boundary exceedances			Countering disinformation

Disinformation

-  By proponents or opponents
-  Often health related
-  Deception with intent
-  Manufacturing doubt or “spin”

Manufacturing doubt

-  Union of Concerned Scientists (2007). Smoke, mirrors and hot air: how ExxonMobil uses big tobacco's tactics to manufacture uncertainty on climate science. www.ucsusa.org
-  Oreskes, N and Conway, E (2010). Merchants of doubt: how a handful of scientists obscured the truth on issues from tobacco smoke to global warming. www.merchantsofdoubt.org
-  Donors Trust US (reported 2013): \$120M on manufacturing doubt

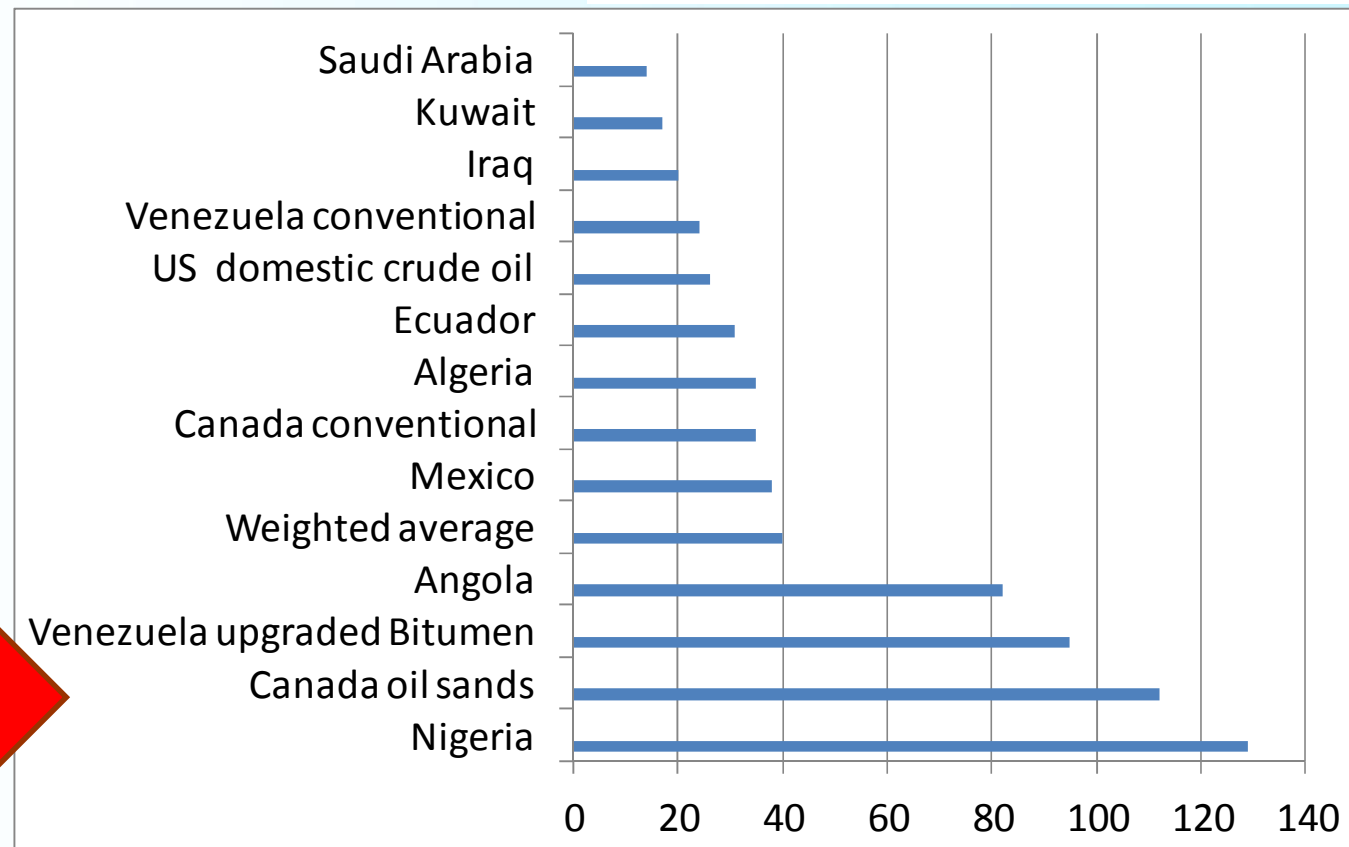
Government of Alberta



“When the entire carbon footprint is considered, crude from oil sands stacks up very closely with other sources”

GHG emissions, well to refinery

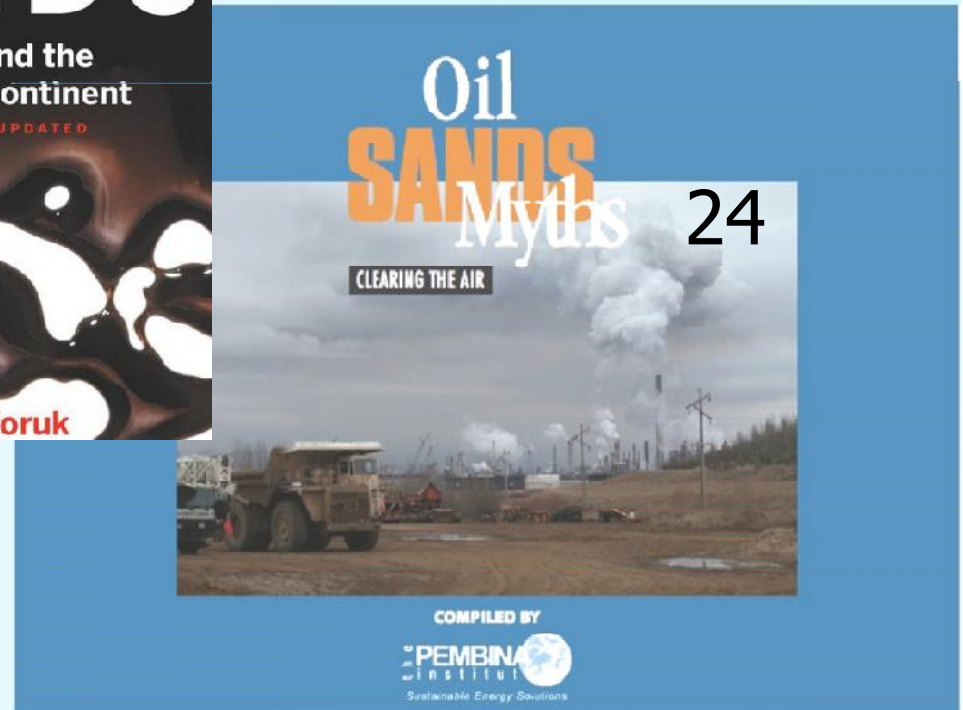
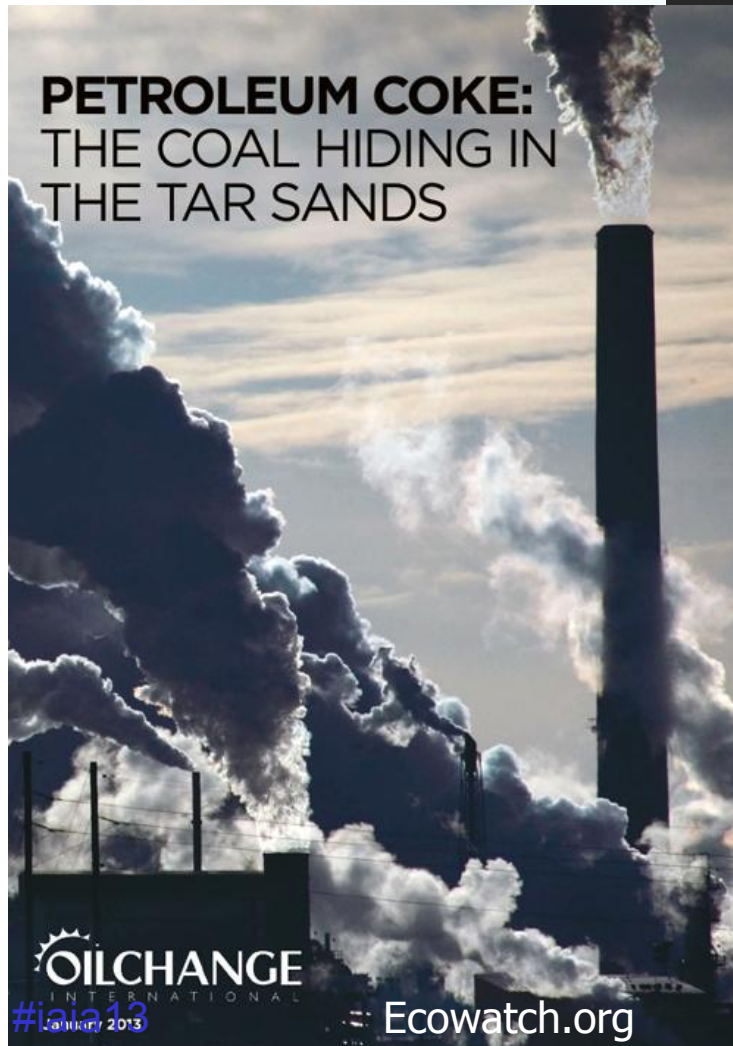
GHG Emissions (kg Co2E/bbl feedstock acquired)



Ignoring pet-coke





Kristin, G. and T. J. Skone. (2009). "An Evaluation of the Extraction, Transport and Refining of Imported Crude Oils and the Impact on Life Cycle Greenhouse Gas Emissions." www.netl.doe.gov/energy-analyses/pubs/PetrRefGHGEmiss_ImportSourceSpecific1.pdf&ei=4vEYUbjkJaSW0QWO1oCoCw&usg=AFQjCNHuST_Cc5WY9QSbJWYuhVBE2Mr9rA&bvm=bv.42080656,d.d2k

Countering disinformation



www.pembina.org/oil-sands/oilsandsmyths

Conclusion

-  Cumulative impacts on health at local, regional and planetary scales
-  Many opportunities for mitigation
-  Disinformation is happening
-  Need more debate on integrating cumulative impacts in HIA

END