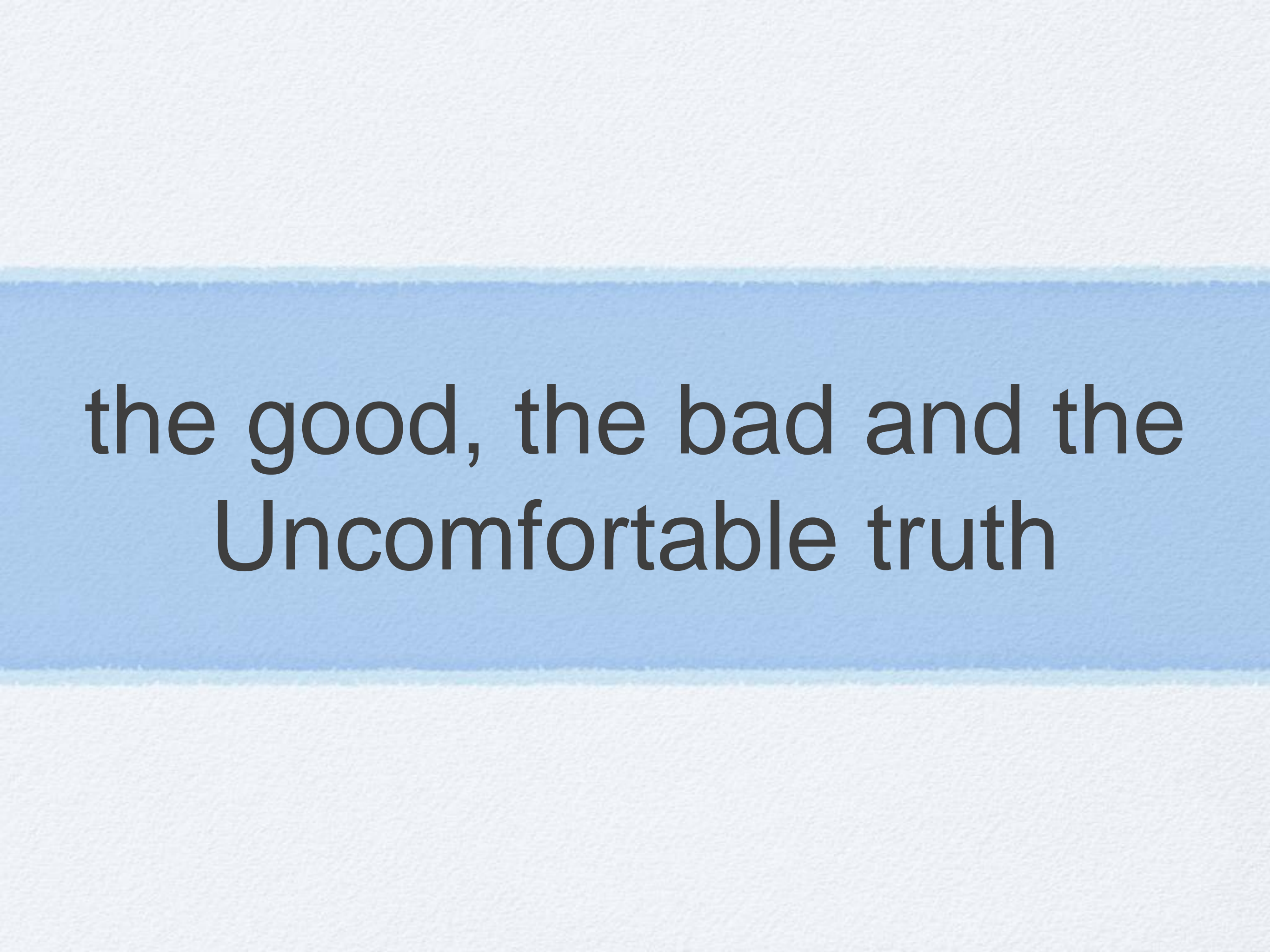




# connections

How global energy, climate and population pressures could create a new future for rural Manitoba

The background of the slide features a wide, flat landscape under a clear sky. A prominent, solid blue horizontal band stretches across the middle of the image, creating a visual separation between the upper and lower portions of the scene. The text is centered within this blue band.

the good, the bad and the  
Uncomfortable truth

# Our Rural History

- 200 years since Selkirk Settlers
- Agriculture dominant
- What was good for agriculture was also good for rural



# Our future

- Agriculture and Rural still go hand in hand
- But their futures are increasingly distinct from one another



# The wheat economy

- About more than the commodities we produced and exported
- Publicly owned genetics - common good vs private gain
- Value chain smaller, but more of it captured by farmers



# The 'canola' economy

- Canola largest generator of farm cash receipts (not always the most profitable)
- Knowledge and control externalized
- More value. But less of the value stays in the local economy



# Agriculture

- direct and indirect contribution to provincial GDP is between 4.4 and 4.8%
- food processing 2 to 4 %
- indirect
- Total: 9.6%
- 1 in 10 jobs



# agriculture

- Just under 20,000 farms - down 10 per cent from the last census/ continues to fall
- Average size: 1,000 acres
- Average age of farmers: 51





# Diversification

- Export oriented
- More diverse range of higher value crops
- Limited development of value added processing
- Food vs fuel



# Specialization

- Boom/bust cycles - less resilience to outside forces
- Hog industry - we saw the economic opportunity - But not the whole picture
- Current restrictions directly related to public backlash - export markets but “local” rules
- we



# Murky Rural reality

- Political reality - urban issues dominate
- 80 per cent of Canadians are urban
- Issues like water quality an urban concern





**bigger Farming: Fewer people**



makes 'rural' a smaller place for  
our youth



# Rural Services

# The farm story

- Average TOTAL farm family income in 2011: \$109,000 (Canadian non-farm average \$75,000)
- 2011 Canadian farm's average net worth: \$1.6 million, up 44 per cent over five years.
- Similarly positive outlook for next decade
- Let the good times roll...

# the rest of the story

- Average 2011 farm family income: \$109,000.  
\$88,000 coming from OFF-FARM sources
- Percentage of net operating income income that actually comes from the farm: grain 23%, cattle 3 %
- Huh? Thought we were done with lifestyle farming. How big do farms have to get? Who is really capturing the value of what we do?



# Can we afford this?

- Government payments contributed 55 per cent of average net operating income over five years: 2004- 2009 (hogs: 170 per cent, grains: 50 per cent, poultry: 11 per cent)
- Question: Are continued taxpayer subsidies for a wealthy sector sustainable in times of restraint?

# Rural Repopulation

- “It’s the five acres, the 10 acres, the hobby farms that people want ... They want to maybe keep a few horses or have a little chicken coop.”
- RM of La Broquerie 42 % population growth since last census/Stanley 31%
- First Nations: 11 per cent



# population Pressures

- Based on current trends, Statistics Canada predicts in 20 years, the Canadian population overall growth rate will be at or near zero, unless immigration numbers remain high or there is a substantial increase in the birth rate.
- Population density: Canada approx. 4 per square km; Ethiopia, 83; Bangladesh, 964!

# Global migration

- migration expected to increase
- environmental refugees
- economic opportunities
- aging populations in OECD countries
- political refugees

- There are currently close to three million long-term immigrants entering OECD countries legally every year and even more temporary movements if international students are included. And this does not count unauthorized movements. (OECD 2005)



Feed the world?

or

Invite it to dinner?



new neighbours?

# Pending peaks

- Peak oil
- Peak phosphorus
- Peak water
- Peak population

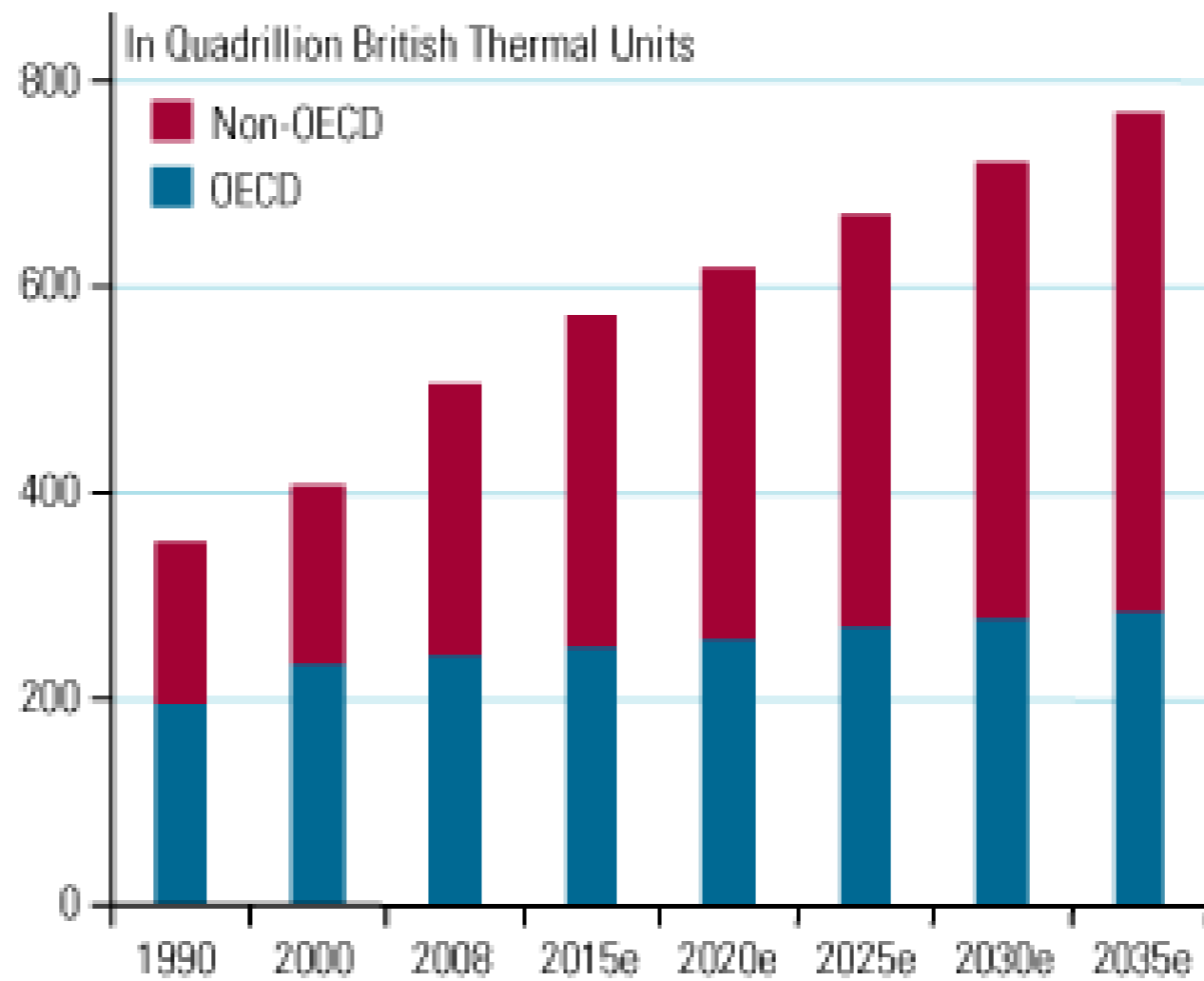


# peak oil?

- 10 years
- 30 years
- 40 years
- Never?
- Now?

# Energy

## World Energy Consumption



e=estimated

Source: U.S. Energy Information Administration



Natural systems

# Manitoba Energy

- Has vast quantities of renewable Hydro energy
- Renewable resources to develop ie. wind, biomass
- Elton Energy co-op:<http://www.eltonenergy.org/>



- “Community power is a way to make an investment with favourable returns, while supporting our local communities and helping the environment.” Elton Energy Co-op
- Harvesting cattails: biomass economy, water and nutrient management.

# Peak oil and Population

- Feeding 9 billion by 2050? ...or
- Max out at 7.5 billion by 2025? Dropping to 1.8 billion by 2100 due to “ long-term aggregate effects of energy decline.”
- Somewhere in between?

# Climate

- Weather extremes - flooding/drought/flood
- Averages don't get the crop in on time



# climate

- Global warming or weather ‘weirding’
- Local impacts: more volatile, more drought, heavier precipitation events, different pests
- Global: Rising oceans - environmental refugees? Food insecurity; Political instability; Economic hardship



# sneak preview

- Perennial crops in their infancy
- Won't happen by itself



- Unfortunately, humanity's behaviour remains utterly inappropriate for dealing with the potentially lethal fallout from a combination of increasingly rapid technological evolution matched with very slow ethical-social evolution.

- The human ability to DO, has vastly outstripped the ability to understand. As a result, civilization is faced with a perfect storm of problems driven by over population, overconsumption by the rich, the use of environmentally malign technologies and gross inequalities.

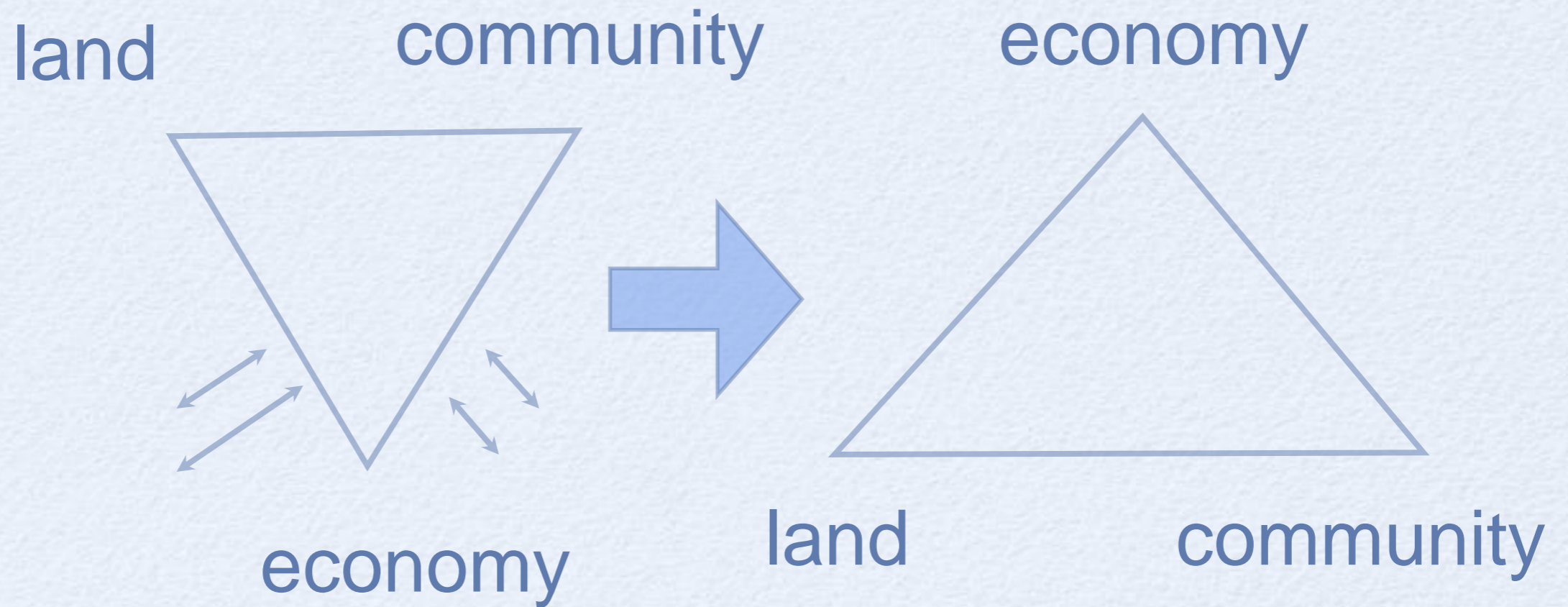
- Community based groups in the poorer, most inaccessible rural areas around the world have demonstrated the power of grassroots action to change policy at regional and national levels...

- there is an urgency now to bring them into mainstream thinking, convey the belief that all is not lost, and the planet can still be saved.

# In a nutshell

- We are not immune to the effects
- Farming - a more natural systems approach
- Bio energy represents an opportunity for rural communities
- Migration will bring more people to Canada - but where will they settle?

# Resilient economies



Which has a more stable base?



**Shifting sands**