### NATURE, WEALTH, AND POVERTY IN THE ARCTIC

and the second se

#### Today's Menu

- The Changing Arctic its impact
- Who are the Arctic Peoples?
  - History of change: from tradition to modernity
  - Domination, inequality, and poverty
  - The emergence of self-governance
- What is the impact of climate change and resource exploitation on Arctic Peoples?
  - Positive impacts
  - Negative impacts
- The role of science and indigenous knowledge
- An Inuit story (short film)

#### People of the Arctic



# Indigenous population as proportion of total in Arctic Nations



#### Indigenous?





tł

Ir 0 р Ir

#### **Division of Arctic into Nation-States**



#### Traditional society before WW II



#### Animism



#### Cold War in the Arctic



#### Neo-colonialism...?



Sources : United States: US Census Bureau, 2002 and United States department of commerce 1993; Canada: Statistics Canada, 1995 and 2002; Greenland: Statistics Greenland, 1994 and 2002; Frare Islands: Farce Islands Statistics, 2002; Iceland: Statistics Iceland, 2002; Norway: Statistics Norway, 2002; Sweden: Statistics Sweden, 2002; Finland: Statistics Finland, 2002; Russa; State Committee for Statistics, 2003; Republican information and publication center, 1992; State committee of the Russian Federation for statistics 1992, AMAP, 1995, AMAP, Assessment Heport: Arctic Pollution Issues, AMAP, 1997. Arctic Pollution Issues: A State of the Arctic Environment Report. Stefansson Arctic Institute, 2004. Arctic Human Development Report.

#### Similarities and differences with cultural trends in non-Arctic areas

- Many of the cultural trends in the Arctic are the result of an unbalanced encounter between the cultural traditions of small-scale, hunter-gatherer societies and large-scale agricultural and industrialstates.
- What is peculiar for the Arctic is that these encounters occurred relatively late, and that agricultural/industrial cultural values were imposed in the 20th century.
- The similarities to non-Arctic areas are greatest with those of other hunter-gatherers pushed aside by agriculturalists

#### **Forced migration**



#### Loss of native culture.....



#### Wage employment and cash economy



# Regaining autonomy and reaffirming cultures and identities



#### Autonomous governance



### The Economy: Mix of Subsistance and Modern sectors

Subsistence (traditional sector)	Modern sector
Uses no or very little money	Is driven by money
People supply themselves with basic commodities such as food, water, fuelwood, etc.	Nature is used as a resource of tradable goods that are primarily valued after their trade value
Institutions are primarily customary, religious, etc.	Institutions are primarily set up by government, etc.
People are living within the nature	People are using nature as a resource base and are living out of the nature
Example activities: family farms/fishery/forestry for village- level supply	Example activities: cash-crop farming, commercial fishery, fish farming, industry, hydropower generation, urban water supply plants

#### Today.....Lower Living Standards in the Modern Economy







#### Lower Life expectancy

- Greenlanders vs. Danes
- Arctic indigenous populations in Canada (Nunavut) and the US (native Alaskans)
- In Russia, average mortality rates have increased significantly since the collapse of the Soviet Union.

#### Inequality in the Arctic

Mortality rates (per 100,000) by race, cause and year Alaska, 1992-2001



#### After UNDP Arctic Human Development Report 2004

#### Lost.....



#### **Climate Change**



#### Positive Impacts of Climate Change

 Some impacts of climate change may improve human well-being. Opportunities for agriculture and forestry may increase. There is evidence that Arctic warming could reduce the level of winter mortality as a result of falls in cardiovascular and respiratory deaths.

#### New jobs.....



#### Tourism and more fish.....



#### New Riches.....



#### And of course Oil!



#### Negative impacts.....

 But this will have to be set against possible increases in drought in some areas, the emergence and survival of new pests and diseases, likely contamination of freshwaters and health and psychological impacts of the loss of traditional social and 'kinship' structures.

#### **Petroleum and Pollution**



#### Contaminants



#### Mercury



Source: Arctic monitoring and Assessment Programme (AMAP), 2003. AMAP Assessment 2002: Human Health in the Arctic.

#### potential *direct* climate-related health impacts in Nunavik and Labrador

Identified climate-related change	Potential direct health impacts
Increased (magnitudeand frequency) temperature extremes	Increased heat- and cold-related morbidity and mortality
Increase in frequency and intensity of extreme weather events (e .g., storms)	Increased frequency and severity of accidents while hunting and traveling, resulting in injuries, death
Increase in uncharacteristic weather patterns	psychosocial stress
Increased UV – B exposure	Increased risks of skin cancers, burns, infectious diseases, eye damage (cataracts), immunosuppression

### Summary of potential *indirect* climate-related health impacts in Nunavik and Labrador

Identified climate-related change	Potential direct health impacts
Increased (magnitude and frequency) temperature extremes	Increase in infectious disease incidence and transmission, psychosocial disruption
Decrease in ice distribution, stability, and duration of coverage	Increased frequency and severity of accidents while hunting and traveling, resulting in injuries, death, psychosocial stress Decreased access to country food items; decreased food security, erosion of social and cultural values associated with country foods preparation, sharing, and consumption

#### **New dislocations**





#### **Sinking Cities**



#### "June isn't really June any more."

 Take the Inuit word for June, qiqsuqqaqtuq. It refers to snow conditions, a strong crust at night. Only those traits now appear in May. Shari Gearheard, a climate researcher from Harvard, recalled the appeal of an Inuit hunter, James Qillaq, for a new word at a recent meeting in Canada. Climate change is not at the top of the agenda for many people in the North

 Other problems, like unemployment, are more immediate, but more and more people are realizing that climate change may make some things worse. It represents one more thing to worry about

# Knowledge: Shipwreck on the Northwest Passage



# Traditional and local ecological knowledge



# How it can help climate change research



#### The End

