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Arctic Monitoring and Assessment Programme

Major health effects associated with the exposure to PCBs

Toxic, mutagenic, carcinogenic and estrogenic effects

Disorders in immune system, behaviour and reproduction

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Structure and Effects

4-OH-PCB107

17 β -estradiol

Thyroxine (T4)

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Finnsnaren, Lennart Nilssons bild av spermien som befruktar ägget. FOTO: LENNART NILSSON

Vulnerable placenta barrier

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Smoking

Infections

Pollutants

Umbilical vein

Wharton's jelly

Umbilical arteries

Yolk sac

Amnion

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Placental transfer of elements-Selenium

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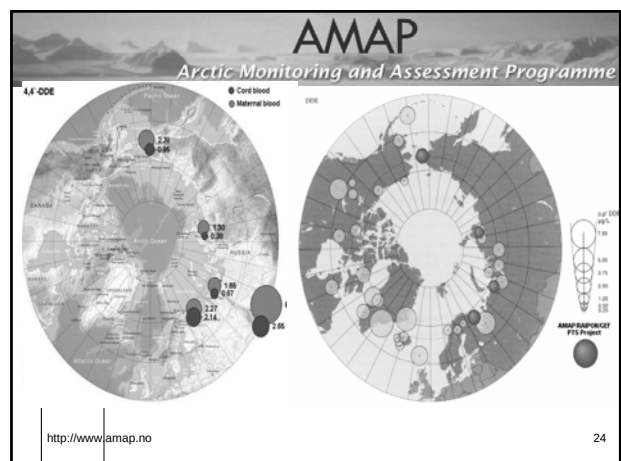
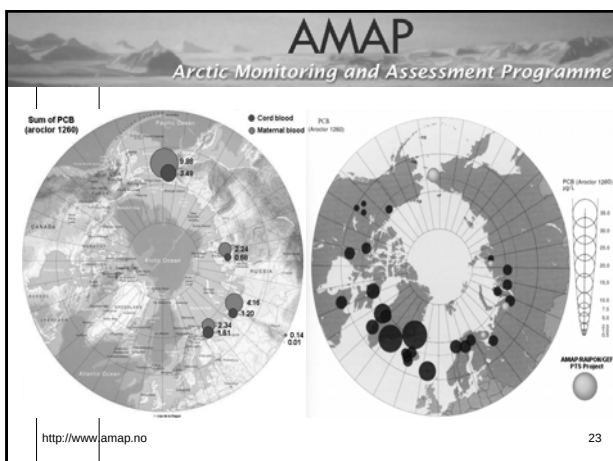
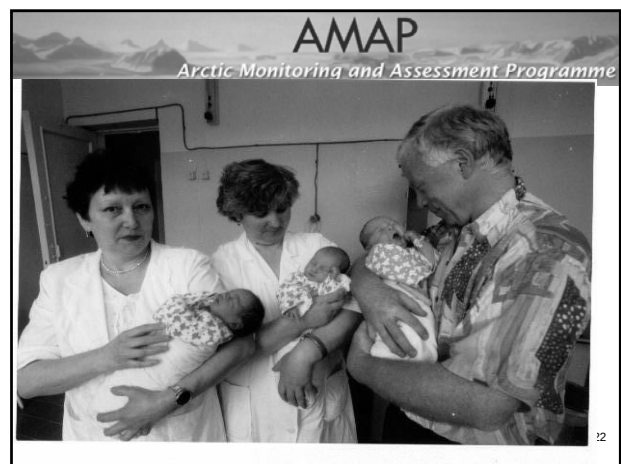
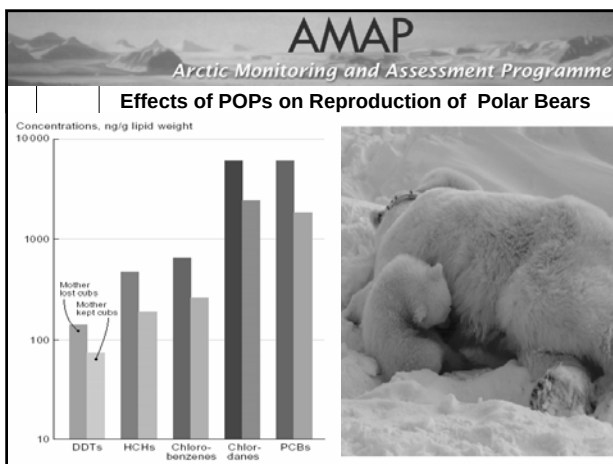
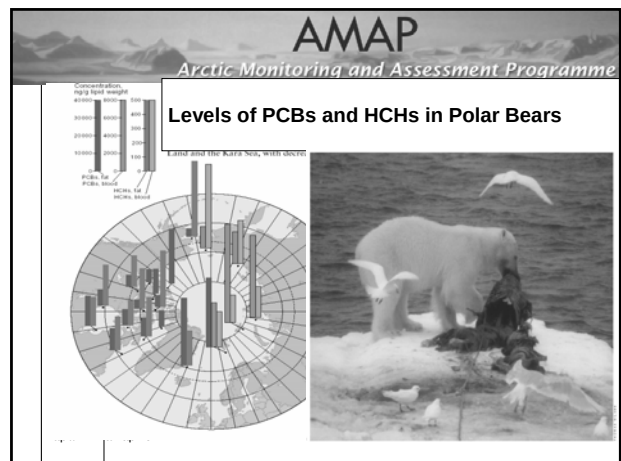
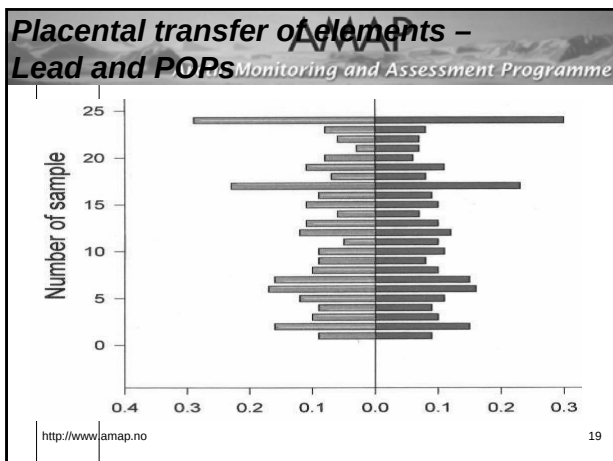
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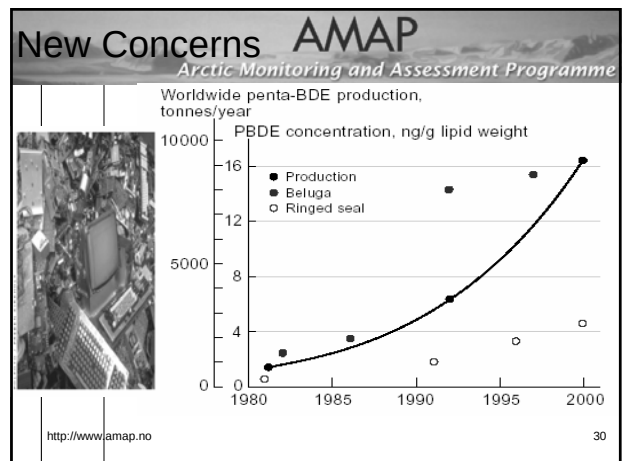
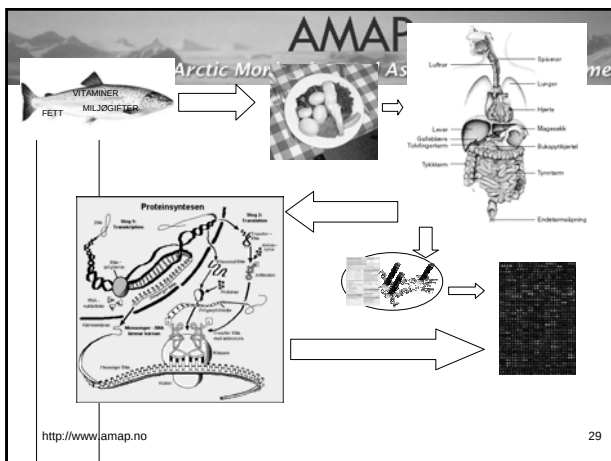
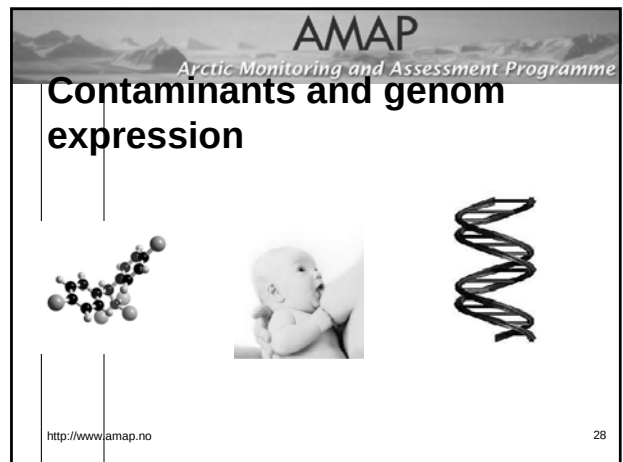
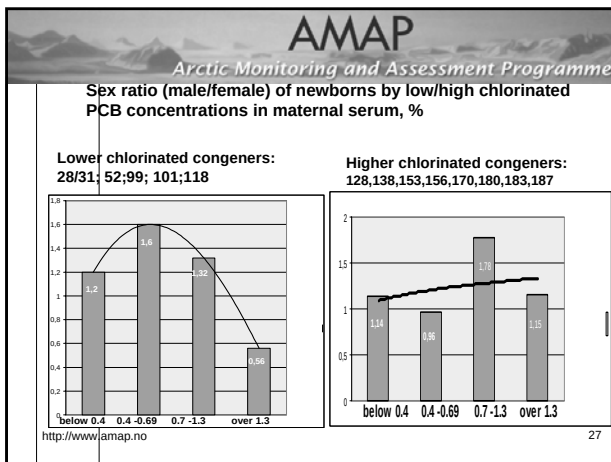
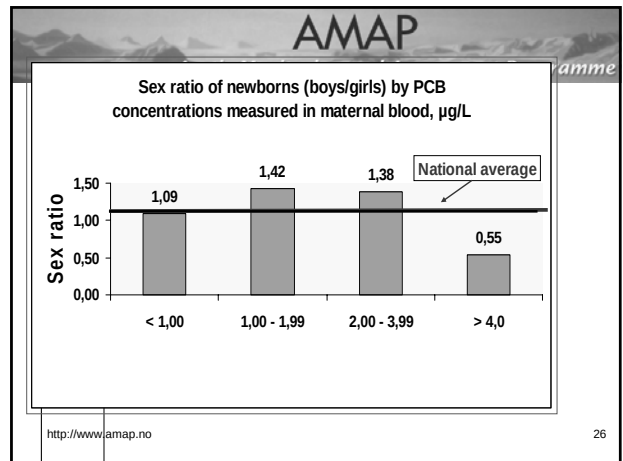
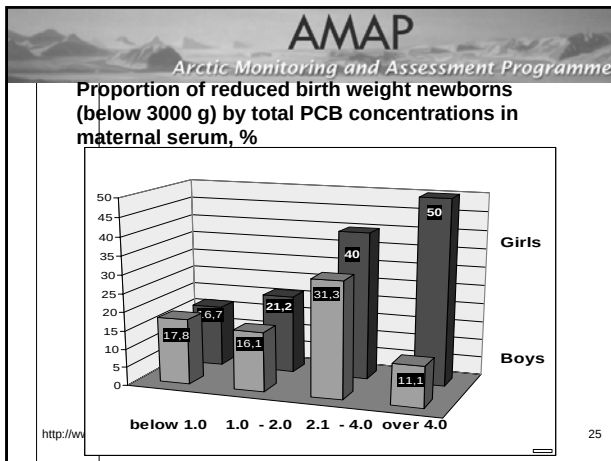
Placental transfer of elements-Cadmium

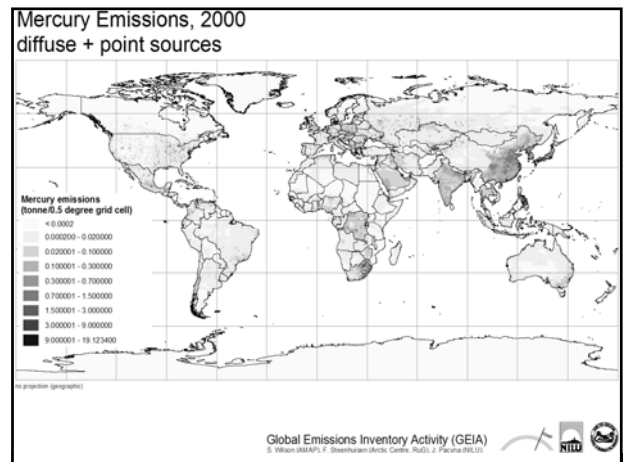
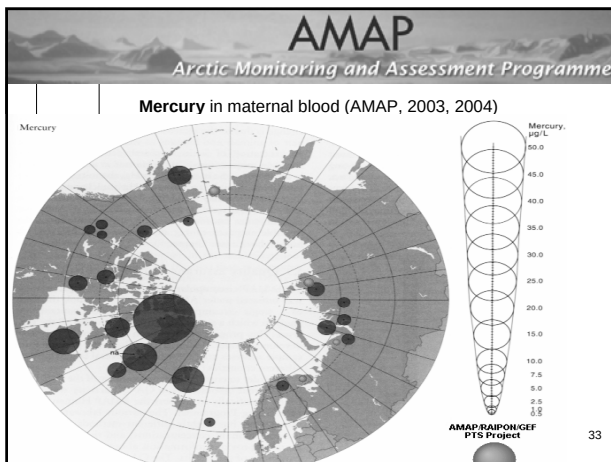
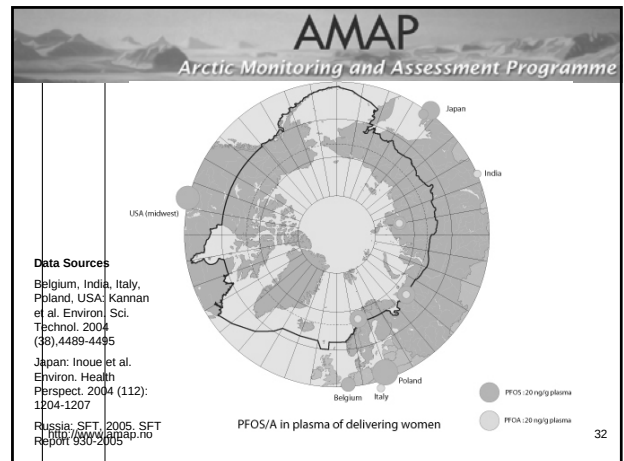
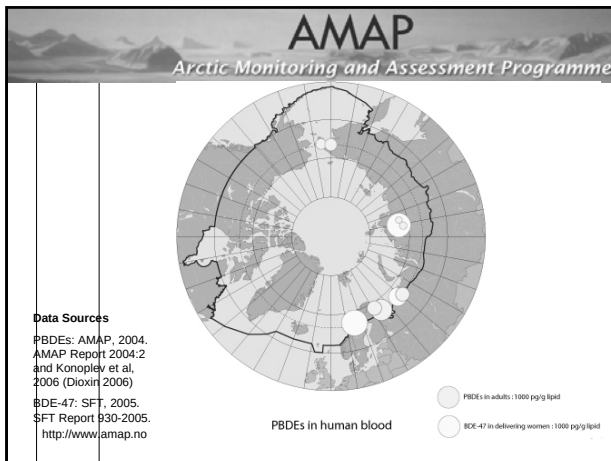
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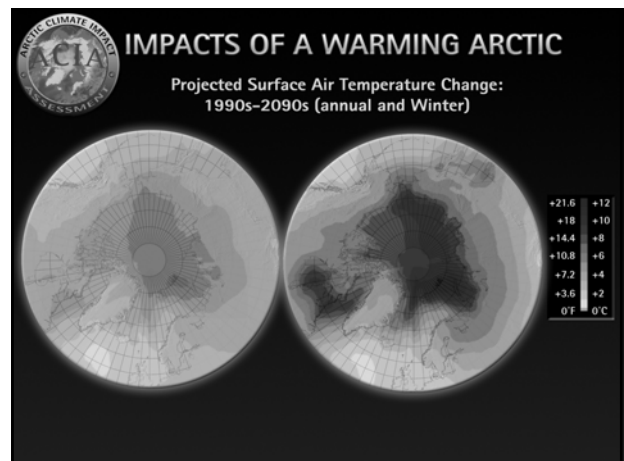


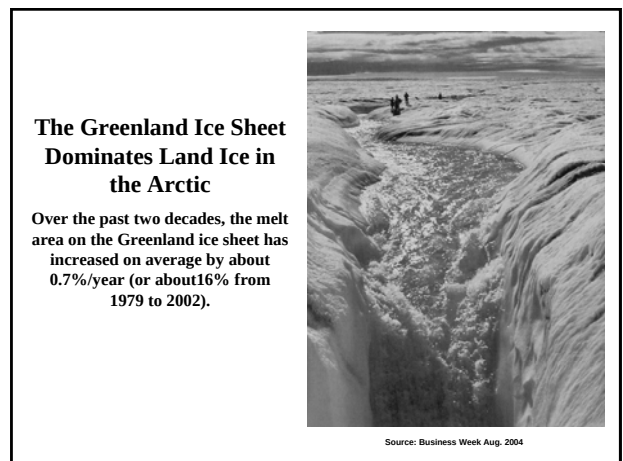
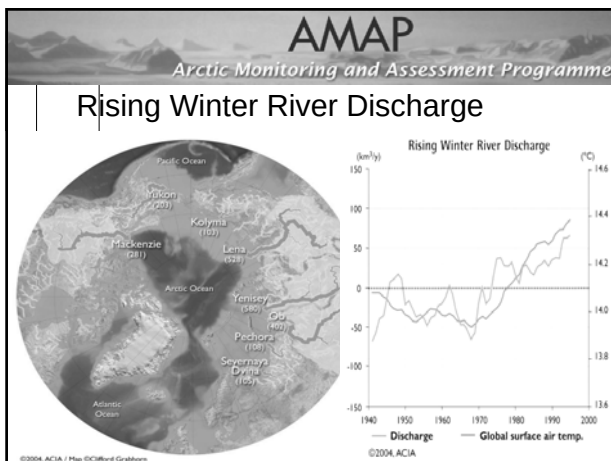
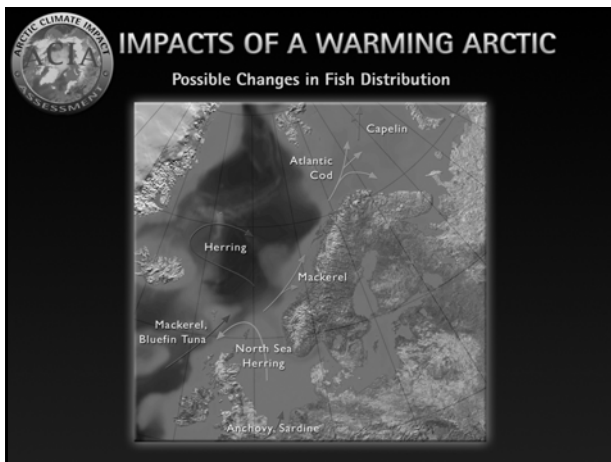
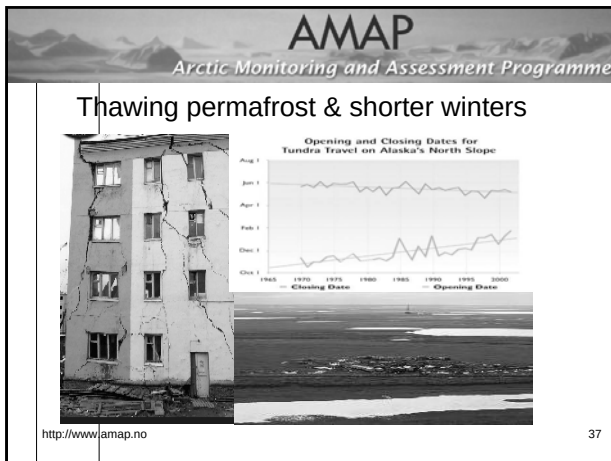
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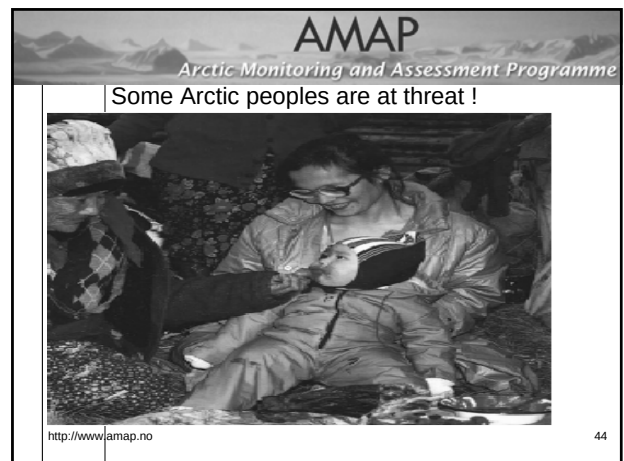
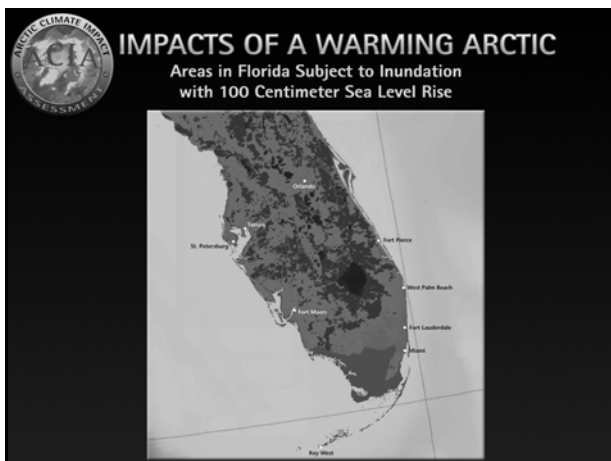
Conclusions from studies on MeHg

- Neurobehavioral effects, memory and language, visuospatial and motor functions
- Cardiovascular effects, increased blood pressure
- Prenatal generally more toxic than early postnatal exposure
- Preliminary results from age 14 years suggest that effects are permanent
- Food advice has reduced intake and levels

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Building Cohorts

- Establish cohorts based on delivery clinics
- Cooperation with Indigenous Organizations and Research Programs
- Preparing effect studies – epidemiological and molecular effects

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Objectives

- To ascertain the levels of dietary exposure
- To evaluate the public health and dietary implications of the findings
- To create advises to the vulnerable part of the population – fertile, pregnant, newborns
- To create evidence to decrease production and release of "old" and "new" substances

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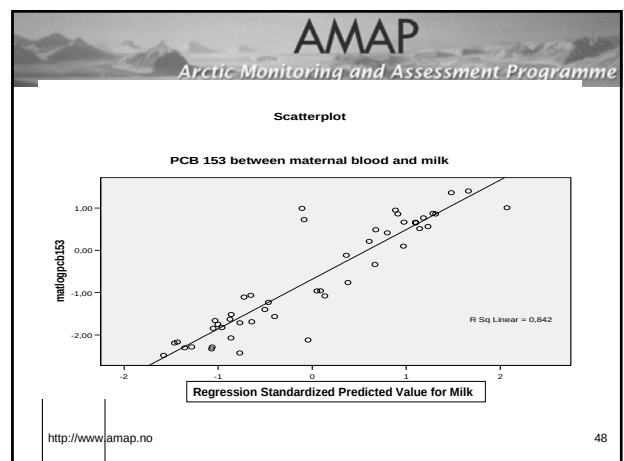
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Stockholm convention
Global Monitoring for POPs in air and human tissue (blood or milk)

First report in 2009 to be based on:

- Existing monitoring programmes (e.g. AMAP, WHO) to perform Regional assessments and global overviews
- Harmonized methodologies
- QA/QC requirements
- Open for new and simple methodologies

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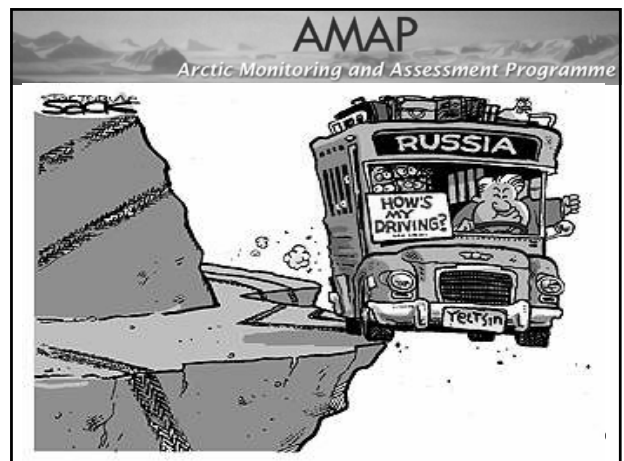
Classic monitoring of the Arctic



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ERIKT JOE HANSEN AND HJALMAR JOHANSEN SUMMER 1988

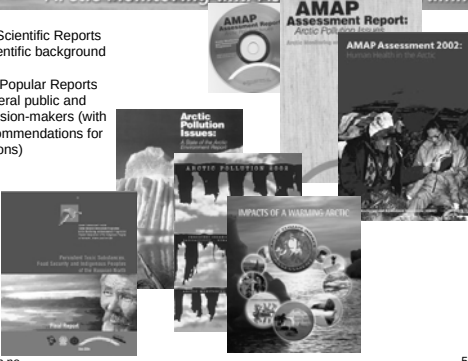
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ARCTIC MONITORING AND ASSESSMENT PROGRAMME

- AMAP Scientific Reports
scientific background
- AMAP Popular Reports
general public and
decision-makers (with
recommendations for
actions)



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