

# Food and health security in the Norwegian, Finnish and Russia border region: linking local industries, communities and socio-economic impacts



Murmansk County  
Birth registry

The Northwest Public Health  
Researcher Center

Institute of the Industrial  
Ecology Problems of the North

# Participants

## Norway:

- The Fram Centre (NILU, APN, UiT, NORUT and NRPA) NILU LP Heimstad
- County governor Finnmark (FiF)
- NILU Lead Partner, Heimstad

## Finland:

- Northern and environmental issues, Thule Institute, University of Oulo (UoO)
- Finnish Meteorological Institute (FMI)

## Russland:

- Murmansk County Birth Registry (MCBR)
- Institute for Ecological Problems, Kola Science Centre, Apatity (INEP)
- The Northwest Public Health Research Centre, St Petersburg (NPC)

# Background

- Increase of toxic elements in freshwater sediments
- Food advisories- reindeer meat- dioxins
- Local industry (Russia, Norway)
- People are concerned due to pollution issues
- Arctic dilemma
- Many projects over the years, Monitoring programs, The Pasvik programme, Contaminant in food etc – need to get an overview of knowledge status, make a synthesis
- Well established collaboration between the partners
- Complementary knowledge and competence

# Competence

Epidemiology

Environmental Chemistry

Toxicology

Ecotoxicology

Social sciences,

Socioeconomics

Birth registries

Human Security

# Work Packages

**WP1:** Human exposure assessment and identification of dietary sources of exposure across border areas **Arja Routti, UoO**

**WP 2:** Contaminants in relevant food items – geographical differences and trend data **Anita Evenset, APN**

**WP 3:** Health effects of contamination in the region – status and future predictions **Alexey Dudarev, NPC & Erik Anda, UiT**

**WP 4:** The socioeconomic consequences of contamination and food safety in the region **Eirik Mikkelsen, NORUT**

**WP 5:** Public awareness and informed policy decisions – addressing human security **Gunhild Hoogensen, UiT**

# Activities

- Literature survey on contaminants in food and blood, Socioeconomic/security studies.
- Questionnaires/interviews.
- Food sampling/blood sampling.
- Assessment of impacts from local industries on local food
- Identify relevant health endpoints
- Blood and food analysis.
- Identification of populations at increased risk
- Data analysis and data integration.
- Communication with stakeholders and dissemination.



# Deliverables

Enhance knowledge on contaminants in key species (food products) used for local consumption and of commercial value (i.e. reindeer and fish).

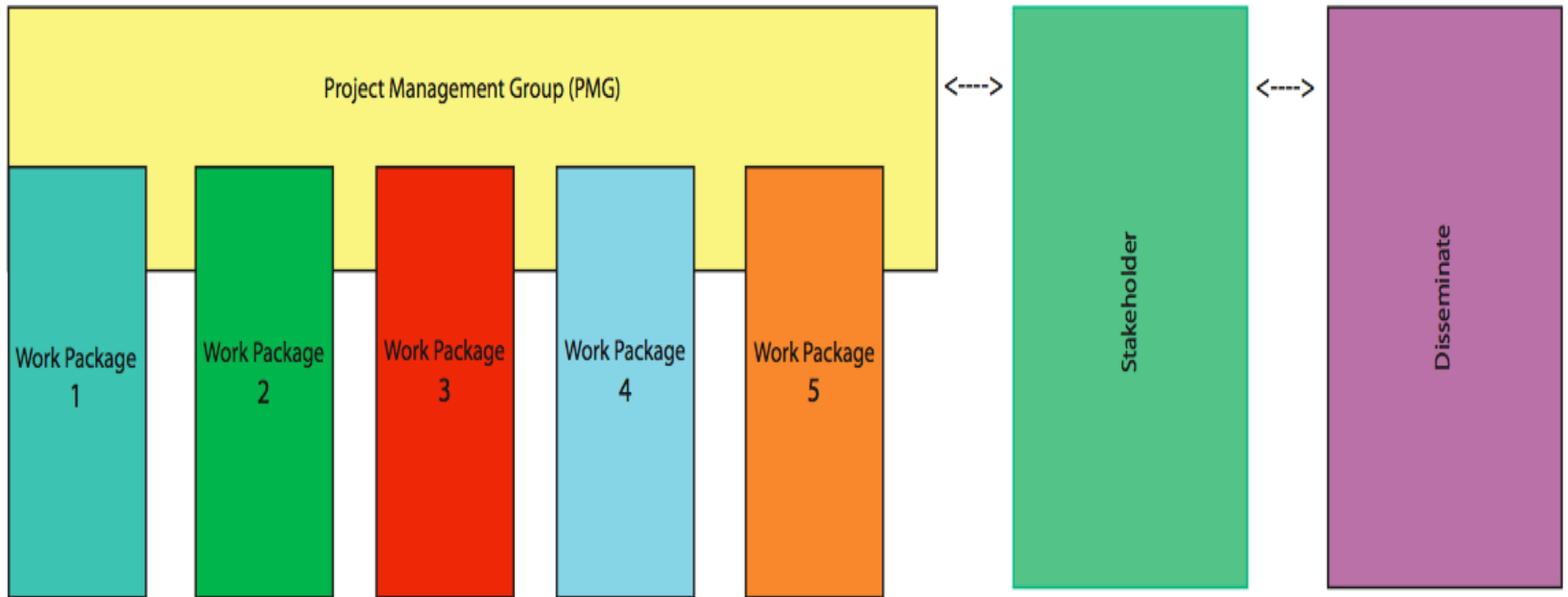
Assess exposure trends of relevant contaminants in residents within the region from both historical and newly collected samples.

Assess social, economic and human health consequences based on contaminant levels in commercially and dietary important species.

Combing both existing and future human health studies to assess current food safety guidelines.

Inform decision makers on how assess future human health and food security risks in the region.





## Public awareness

Human Health

Policy Makers

Perceived  
Security

Local foods

Local Industries