



UArctic Conference Session: 201. Solid Waste Management in the Arctic: Issues, Complexity, and Sustainable Future

Managing Solid Waste at the Periphery: Interplay Between Remoteness and Urban Governance in the Arctic

Nadezhda Filimonova and S. Jeff Birchall

Arctic Centre, University of Lapland
University of Alberta

UArctic Congress,
27 May 2026, Tórshavn



LAPIN YLIOPISTO
UNIVERSITY OF LAPLAND

Initial Empirical Study



Journal of Environmental
Management

Volume 371, December 2024, 123111



Research article

Sustainable municipal solid waste management: A comparative analysis of enablers and barriers to advance governance in the Arctic

Nadezhda Filimonova ^a✉, S. Jeff Birchall ^b✉

Common Challenges from the Case Studies Related to Remoteness:

- (1) Recycling opportunities are limited in remote areas.
- (2) Finding markets for recycled materials can be difficult, and transportation costs might be high.

Research question:

How does remoteness influence the advancement of MSWM in Arctic small and medium-sized cities?



Conceptual framework

Conceptualizing remoteness:

(1) *A distance from the (dominant) centre.*

Power dynamics and characteristics of peripheral areas (d'Plesse 1992; Pezzi and Urso 2016).

(2) *Beyond the distance approach.*

Technological and economic connectivity (Bocco 2016; Ronström 2021).

Modes of governing waste: 'disposal mode', 'diversion mode,' 'eco-efficiency mode,' and 'waste-as-resource mode' (Bulkeley et al. 2007).

Findings

<i>Governing waste at a distance</i>	National legislation vs Arctic conditions for its implementation (challenges in implementation and enforcement).
<i>Knowledge of waste composition</i>	A problem of inadequate data concerning the volume and types of waste generated.
<i>Waste management infrastructure deficit: sources of funding</i>	Who is responsible for the costs associated with infrastructure development and maintenance?
<i>Waste management and innovations</i>	Fostering innovation often depends on individuals (e.g., entrepreneurs), companies, or local authorities willing to take on leadership roles.
<i>The role of non-state actors</i>	Local NGOs providing unique insights into environmental issues but also limited in their capacities due to small size.

Conclusion

- (1) Waste management strategies should be adapted to local Arctic contexts rather than relying on one-size-fits-all approaches.
- (2) Recognizing and addressing structural challenges, including transportation, infrastructure, workforce, funding, and governance limitations, is critical for improving MSWM systems and supporting sustainable regional development.
- (1) Strengthening dialogue and communication among local, regional, and national authorities and the public is equally important for enhancing coordination, policy coherence, and effective implementation.

Anchorage Regional Landfill



Thank you for your attention!

nadezhda.filimonova@ulapland.fi

References

- Bocco, Gerardo. 2016. "Remoteness and Remote Places. A Geographic Perspective." *Geoforum* 77:178–81.
- Bulkeley, Harriet, Matt Watson, and Ray Hudson. 2007. "Modes of Governing Municipal Waste." *Environment and Planning A* 39(11):2733–53.
doi:10.1068/a38269.
- d'Plesse, Peter. 1992. "Redefining Remoteness in the Post Industrial Society." *Australian and International Journal of Rural Education* 2(1):1–6.
- Ronström, Owe. 2021. "Remoteness, Islands and Islandness." *Island Studies Journal* 16(2):270–97. doi:10.24043/isj.162.