

# Advancing Sustainable Municipal Solid Waste Management in the Arctic

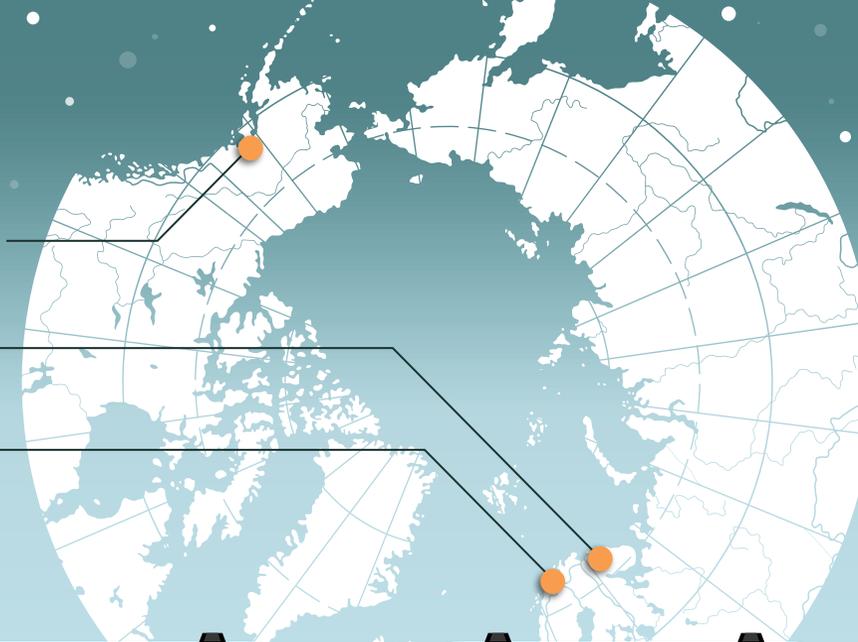
**The Arctic's** fragile environment, severe weather conditions, and rapidly changing climate, make improving municipal solid waste management (MSWM) here critical.

A comparative case study of three communities revealed five categories of enablers and barriers that affect the advancement of MSWM.

Anchorage  
USA

Murmansk  
Russia

Tromsø  
Norway



**BARRIERS | ENABLERS**

## LANDFILL CAPACITY

- Diversion from landfills and incineration
- Running out of space
- No new landfill sites
- Unauthorized landfill

## WEATHER & LOCATION

- Waste collection innovations
- Challenges with waste collection in winter
- Issues with access to markets for recyclables

## LEGISLATION

- Presence of legislation that mandates recycling
- Absence of legislation that mandates recycling

## FUNDING

- Presence of national funding for MSWM infrastructure
- Absence of national funding for MSWM infrastructure

## PRIORITIES

- Continuity of policies under newly elected local leadership
- Disruption of policies under newly elected local leadership

## Analysis

Evolutionary Governance Theory exposes dependencies that create further enablers and barriers including:

### ➤ **Path Dependencies:**

Either enable innovations or create barriers for local waste policies

### ➤ **Interdependencies:**

Enable advancement of MSWM when there is local leadership commitment

### ➤ **Goal Dependencies:**

Create barriers to advancing MSWM when there is a lack of overarching goals