New paths for municipal waste management: Emerging practices in Russia and experiences from Germany

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Scientific problem and research question

Russia plans to increase the recycling rate of municipal waste from currently 8-9% to 60% by 2025. Numerous toxic landfilling sides need to be rehabilitated. Waste management is probably the most urging governance issue in Russia. In 2012 each capita in Russia generated 561.7 kilogram waste per year, which is above European average. Though waste per capita is still lower than in Germany, it increased by 50% from only 354 kg ten years earlier (Table 1).

Table 1: Municipal waste in selected countries

<table>
<thead>
<tr>
<th>Municipal waste total, kilograms per capita</th>
<th>2000</th>
<th>Trend</th>
<th>Latest data available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>354.0</td>
<td>↗</td>
<td>561.7 (2012)</td>
</tr>
<tr>
<td>Germany</td>
<td>648.1</td>
<td>↘</td>
<td>637.4 (2017)</td>
</tr>
<tr>
<td>United States</td>
<td>783.2</td>
<td>↘</td>
<td>744.1 (2015)</td>
</tr>
<tr>
<td>OECD-Europe</td>
<td>525.0</td>
<td>↘</td>
<td>492.1 (2017)</td>
</tr>
</tbody>
</table>


Waste management means to reduce, reuse and recycle waste (3Rs) and only to dispose what was left. Municipal administration and state-owned companies play a key role in this process. Urban areas in Russia and Germany account for a large share of total waste. Effective municipal waste management contributes to climate protection and the sustainable development of the whole country.

Existing research concludes that waste management is still underdeveloped in Russia. Transforming conventional waste disposal schemes into a closed loop management requires 1) profound knowledge on best-practices and 2) realistic assessment of their applicability in Russian cities.
Germany recycles 64% of municipal waste; that is the highest recycling rate in Europe, and the level that Russia intends to reach within the next five years. Despite its positive reputation and high recycling rate municipal waste management in Germany faces numerous problems, too; e.g. Germany still generates too much waste, and too much solid household waste is simply burned.

The paper will investigate and compare waste management in selected Russian and German cities. It will be part of the research project “Municipal waste management in Russia and Germany” at the National Research University Higher School of Economics.

The research questions are:

1) To what extent municipal waste management varies across Russian and German cities in terms of organizational structure, decision making, and performance evaluation?
2) How do public managers learn from each other?
3) What factors facilitate or impede effective regulation and implementation of municipal waste management?

Methods

We conduct comparative case study research in a most different systems design (MDSD). Cities in Russia and Germany face a similar pressure from waste generation but vary by governance structures, legal frameworks and administrative contexts, among others.

We will first review the existing information on municipal waste management, followed by in-depth case studies in cities in Germany and Russia. The in-depth case studies will be structured alongside the waste management hierarchy in European and German law (Figure 1). They will encompass interviews with administrative practitioners, representatives from private and municipal waste companies, elected officials, and environmental NGOs.

Our case selection in Germany will be based on two indicators: waste generated per head, a proxy for problem pressure, and fees/quality ratio of waste collection which is an indicator for best-practices in waste service delivery. Candidates for case selection in Russia include Moscow, St. Petersburg, and Kaluga.

Based on the comparison between German and Russian cases we will draw conclusions on the demand and opportunities for transfer of technologies and practices into German and Russian municipal waste management.
Figure 1: Waste management hierarchy

**Practical application**

Our in-depth case studies generate and provide cumulative knowledge about best-practices and problem-solution in waste management in Germany and Russia to researchers, practitioners and the broad public. The proposed comparative analysis of the experiences, determinants and obstacles to sustainable waste management in cities in Russia and Germany will help to inform the Russian transformation process.

**Brief biographical paragraph describing the authors’ affiliation, research interest, and recent publications**

Tim Jäkel is an Assistant Professor at the School of Politics and Governance of the National Research University Higher School of Economics, Moscow, Russian Federation. He holds a PhD in Political Science (Dr. rer. pol.) from the University of Heidelberg, Germany. Prior to joining the National Research University Higher School of Economics, he worked as a research fellow at the German Research Institute for Public Administration Speyer, Germany. Tim’s research interests include environmental policy, public management, and work-attitudes and behaviors in Russia and Germany. Results from his research were recently published in the *International Review of Public Administration*, the *NISPACee Journal of Public Administration and Policy, Statistics, Politics and Policy*, and *Teaching Public Administration*. His email is tjekel@hse.ru.