

4.1.5 Waste Management in Icelandic Urban and Rural Communities. Part 1

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The next section of Training Module 4 is dedicated to the waste management in urban and rural communities of Iceland

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The first part is focused on Iceland main features in connection with solid waste generation rates and its material composition and discusses the organization of waste collection schemes

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Iceland is an island state situated in the North Atlantic, close to the Arctic Circle. The proximity to Arctic classifies the climate as subpolar oceanic. As we may see in this map, it is divided in 8 regions with the main population being clustered around the Capital Region. However the population density barely reaches 3.5 persons/km². From statistical data, it resulted that approximately 20% of the population lives in rural villages or rural areas. A unique feature of the island, with significant impact on the living conditions is the availability of alternative energy sources such as geothermal and hydrothermal. The oldest economic activity which is still playing an important role is fishing.

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The Icelandic statistic database considers 33 communities with a population between 50 and 200 people as rural areas, the rest of 62 communities can be considered as urban settlements. As mentioned before the population is distributed mainly in the Capital Region, followed by the Northeast and Southwest region. The harsh climate and the existing main road infrastructure makes transportation distances rather long. In the past 20 years, tourism increased ten times, from around 0.2 million per year to 2.5 million per year. Not only do tourists contribute economically to the development of Iceland but also in terms of seasonal waste generation. Rural and remote areas are used to manage much of their services on their own including the waste collection service.

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Given the social and economic aspects of Iceland, the municipal solid waste generation is one of the highest in the European countries at approximately 700 kg/capita/year. A study performed by the SGI Network on 41 countries in 2022, has showed that in terms of Environmental policies, Iceland has an average score of 6.4, ranking it on the 18th place out of 41. Among the indicators with minimum scores is Waste Generation.

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A material composition of municipal solid waste in Iceland has indicated a 35% mixed non-household production waste, 25% mixed household waste, followed by 13% paper and cardboard waste and 10% wood waste, to name the most significant fractions. In more populated areas, municipalities often outsource waste collection, while more rural municipalities are more likely to manage their own waste collection. It is the responsibility of local authorities to determine the most suitable arrangements for waste collection and to adopt regional waste treatment plans.

A new system for separate waste collection was adopted by the municipalities in the Capital Region starting with 2023. The 4 bin collection system follows a uniform classification of household waste: green bin for plastic, blue bin for paper and cardboard, gray bin for mixed HH waste and brown bin for organic kitchen waste. To encourage waste prevention and reduction, a thrifty bin is also available instead of the gray bin, with half of the gray bin size and cheaper in terms of waste collection fees.

In the same area, 6 recycling centers are available in which population might bring up to 32 categories of recyclable waste.

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To sum up, we talked about the solid waste generation and composition in relationship with the main social and economic aspects of Iceland and found out about the existing waste collection schemes. Thank you for your attention.