

Case Study 16.E

Warsaw, Poland, and City Sustainability Reporting

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Population (Metropolitan Region)	1,735,442 (Statistical Office in Warsaw, 2015)
Area (Metropolitan Region)	517.2 km ² (Statistical Office in Warsaw, 2015)
Income per capita	US\$12,680 (World Bank, 2017)
Climate zone	Dfb - Cold, without dry season, warm summer (Peel et al, 2007)

Sustainability Reporting

Sustainability reporting – publishing data on an entity’s environmental, economic, and societal performance and governance – is an essential step in climate change mitigation and adaptation (Sulkowski and Waddock, 2013). As a management tool, it can help city managers evaluate plans, investments, regulations, and incentives to optimize quality of life and climate mitigation and adaptation (Ballantine, 2014). Among other motivations, organizations also engage in sustainability reporting as a way to better communicate with stakeholders, encourage innovation, boost confidence of investors, and attract, retain, and inspire talented people (Hughey and Sulkowski, 2012; KPMG, 2013; Walsh and Sulkowski, 2010; Wu et al., 2011).

Sustainability reporting among cities is at a much earlier phase of adoption than among companies. While a sustainability reporting framework for corporations, the Global Reporting Initiative (GRI), was founded in 1997 (Brown et al., 2009), a similar framework for cities did not appear until late 2012 in North America: the Sustainability Tools for Assessing and Rating Communities (STAR Communities, 2015). The first set of indicators designed for global adoption by cities was not published until 2014 (the International Organization for Standardization’s ISO 37120:2014). In 2013, when more than 4,000 companies published sustainability data, including 93% of the largest 250 corporations in the world (KPMG, 2013), it

was still considered innovative for a city to release such data (Ballantine, 2014).

Data Related to Climate Change

All standards suggest that reporting entities publish specific facts related to their organizational profile and governance, plus statistics about environmental, societal, and economic impacts. We present here examples of major metrics that most directly gauge an entity’s impacts upon and vulnerability to climate change, plus goals, investments, and progress toward eliminating its negative impacts and adapting to a changed climate:

- Energy consumption within the organization
- Reduction in energy used as a result of efficiency initiatives
- Habitats protected or restored
- Direct greenhouse gas (GHG) emissions
- Indirect GHG emissions
- Reduction of GHG emissions
- Investment in environmental protection expenditures

City of Warsaw Implements Sustainability Reporting

Warsaw, capital of Poland, has an official population of 1.7 million with a total of almost 3 million people in its metropolitan area. It was systematically razed near the end of World War II by occupiers as punishment for resisting and has been rebuilt since 1945. The reconstruction included the largest rebuilding of a Medieval Old Town. At the same time, city planners of the foreign-imposed Communist regime laid out a sprawling new grid of avenues between four- to six-car lanes in width. This context, coupled with the explosive growth of Poland’s economy since the country’s return to full independence in 1989, has resulted in a mix of opportunities and challenges that, as in other cities, are directly related to climate change.

The 2013 Warsaw Integrated Sustainability Report was the first in the world to use the latest standard (called G4) of the Global Reporting Initiative partly to draw attention to the concept of city sustainability reporting (Cohen, 2013; City of Warsaw, 2013), a distinction that earned it a spot on a list of the top 10 sustainability reports of 2013 (Cohen, 2014). In 2014–15 the city took additional steps of referencing the new ISO standard and engaging local university students under the oversight of professors to complete the reporting exercise (Ballantine, 2014).

Box 1 Highlights of Warsaw's Climate Mitigation and Adaptation

- 25% of Warsaw is green space
- Co-generated heat distribution system from electricity production is third largest (1,700 km) in the world
- Fuel use, because of co-generated power and heat, is 33% more efficient than many power plants elsewhere in the world
- Recently modernized water treatment plant was the largest environmental protection investment in Europe (totaling €769 (US\$908.4) million) and is 33% powered by processed solids from wastewater
- Ranked 16th out of 30 in the European Green City Index
- Biomass-based energy generation to grow from 2% to 10% and waste-to-energy from 1% to 8% from 2010 levels to 2020, with a goal of cutting emissions 20% below 2007 levels by 2020
- Adjacent UNESCO World Biosphere Reservation is home to thousands of plant and animal species

In Warsaw, as elsewhere, sustainability reporting can play a key role in furthering climate change mitigation and adaptation by:

- Optimizing outcomes by helping leaders see positive relationships between climate policy and economic, societal, and local environmental benefits

Encouraging residents (and other stakeholders) with positive-but-underappreciated facts about the city, and inspiring further climate-friendly behavior choices (e.g., related to recycling, lifestyle, and commuting)

Lessons Learned and a Checklist for Implementing Sustainability Reporting

Cities can readily adopt the practice of sustainability reporting. Based on implementing sustainability reporting for Warsaw and municipalities in the United States, sometimes with university student teams, the author offers the following generalized steps to consider:

1. Study the conceptual background of sustainability reporting, standards, and examples.
2. Find a champion of reporting within city government.
3. Explore partnerships with local education institutions and engage university student teams under the guidance of professors, staff, or consultants. This creates many side benefits such as spreading awareness of climate change mitigation and adaptation and other community sustainability issues, inspiring and informing research, and training students in environmental policy, communications, statistical analysis, and public and private sector management.
4. Identify what matters to stakeholders.
5. Choose whether to use or reference a standard.
6. Research and prepare the report, starting with available goals and statistics.
7. Consider a summary of key indicators plus a longer full report.
8. Seek internal or external verification. Corporations often have their sustainability reports audited to make them more credible to investors and other stakeholders.

9. Search for – and incorporate – feedback. Ideally, reporting is a channel for not just sharing data, but also for hearing ideas on improving goals, actions, and outcomes.
10. Before publication, prepare a roll-out and communications strategy. Be aware that, in a politicized climate, even a pragmatic exercise in transparency may be criticized.
11. Consider alternative communication media. Availability of open, real-time city data on mobile devices could help steer behaviors to be more climate neutral (Batty et al., 2012). An example of this is the public transportation navigation application from CityNav in Poland, which updates actual positions of buses, trains, and trams in real time, making mass transit even more predictable and appealing to users.
12. Encourage ambition in goal-setting and the active use of sustainability reporting as a tool for planning and evaluating progress toward, ideally, a net zero emissions future.

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