## **REVERSE LOGISTICS IN OFFICIAL STATISTICS DATABASES**

Official statistics is a system for the statistical data collection, gathering, storing and development of the data collected as well as announcing, making available and disseminating the results of statistical studies (The Act of 29th June 1995 on official statistics, Chapter 1 Article 2 point 1).

The issue of environmental protection and in particular waste management is one of the key fields influencing the development of enterprises and local government units. Reverse logistics which is an important tool ensuring planned and effective flow of waste, both municipal and industrial ones, is reaching towards the processes of proper waste management.

Below is information describing analyse the content of the information describing reverse logistics in selected official statistics databases.

As of 2017 CSO has 36 banks and databases. On this rich platform only 4 databases contain the data describing the area of reverse logistics. These are the following (Zielińska, 2017, pp. 21-24):

1) Local Data Bank,

2) Development monitoring system STRATEG,

3) Knowledge Database, including bases: LDB Territorial Cross-Sections, Condition and Protection of Environment and

4) the application Sustainable Development Indicators.

The Local Data Bank (LDB) (bdl.stat.gov.pl) aims at gathering, systematic updating and making available the data from official statistics studies and from administrative information systems in the local and regional spatial arrangements. In this rich database two groups of data on waste are included into the information describing reverse logistics:

1. municipal waste - waste collected separately during the year (for poviats); for 14 pieces information (tonnes); waste collected selectively in relation to all waste (for voivodeships); 3 indicators;

2. waste generated and having been stored so far - the waste generated during the year 4 information (thous. t.).

The development monitoring system **STRATEG** (strateg.stat.gov.pl). There are 7 indicators for reverse logistics in the system:

1) Level of recycling and preparation for re-use of selected waste fractions: paper, metals, plastic and glass (%);

2) Level of recycling, preparation for re-use and recovery using other methods of other than hazardous waste from construction and demolition;

3) Municipal waste collected separately as share of total municipal waste collected from households (%);

4) recycling of packaging waste (%);

5) Share of received and collected waste such as paper, cardboard, metals, glass and plastics in the mass of all received and collected municipal waste (%);

6) share of waste (exluding municipal waste) recovered in waste generated (%);

7) share of municipal waste collected selectively in the total amount of municipal waste (%).

**Knowledge Databases** (DBW) (swaid.stat.gov.pl) allow access to the statistical data, along with the opportunity to create statistical summaries and carrying out analyses. There is only one information connected with reverse logistics - waste (excluding municipal waste) – generated; recovered (thous. t.).

The last database is the application **Sustainable Development Indicators** which consists of 4 modules. It is one of very few in Europe publicly accessible tools for sustainable development monitoring. In "Agenda 2030 Module" it is described by only one indicator of reverse Logistics - The national level of waste recycling (%). While in "National Module" in environmental governance 2 indicators related to reverse logistics can be identified - share of municipal waste collected selectively in the total amount of municipal waste (%) and packaging waste recycling (%). As far as "Regional Module" is concerned, in environmental governance there is 1 indicator related to reverse logistics (repeated in PT BDL, STRATEG and "National Module") - share of municipal waste collected selectively in the total amount of municipal waste (%).

In the selected databases and in the bank there are 12 indicators and 19 statistical characteristics describing reverse logistics. The information in official statistics banks and databases is repeated. In the conducted analysis this fact concerns 2 indicators.

## References

- 1. The Act of 29th June 1995 on official statistics (J. of L. of 2016, item 1068, as amended)
- 2. Zielińska A. Monitoring of reverse logistics based on official statistics databases, "International Economics Letters", vol. 6, 2017; Doi: 10.24984 / iel.2017.6.3

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## THE IDEA OF ENVIRONMENTAL JUSTICE

It is undeniable that any theory of environmental justice should consider the duty of sustaining the natural resources as one of the major conditions of life on the Earth. That becomes clear, especially when we talk about the results of environmental pollution, rapid increase of human population, fast urbanization, unsatisfied basic needs of poor people in developing countries and global destabilization of natural and socio – economic systems. Since it is widely proved that there are limits to growth, we should deny the possibility of infinite use of resources and consumption without constraints. But still there is a big infusion within the western political culture concerning the place of green thought in liberal democratic theories (de Geus, 2001).

The authors of Brondtland Report addressing, among others, its statements to the western liberal democratic governments, emphasized that inequality is the planet's main "environmental" problem (World Commission ..., 1987, p. 6). In the same context, Tim O'Riordan argues that the actions, which might cause an environmental unsustainability, are <...> essentially uncontrollable unless the structural conditions that include poverty and desperation are altered (O'Riordan, 1993, p. 35). Similarly, Rosa Braidotti notices <...> a growing recognition of the connections between the crises in development, the deepening global environment crisis, the growth of poverty (Braidotti, 1994, p. 3). When we assume that there might be a meaningful correlation between environmental sustainability and distribution of wealth, we should consider the fact that poverty and wealth are both major causes of environmental problems (Dobson, 1998, p. 134). It is unquestionable fact as Peter Bartelemus writes that poverty and affluence [can] refer to the pressures of growing populations in poor countries on marginal and vulnerable lands, forests and congested cities (Bartelemus, 1994, p. 11). But later on he continues: In industrial countries, on the other hand, impacts of high-level economic growth and consumption are responsible in most cases for environmental degradation (Bartelemus, 1994, p. 11). So it seems that pushing on reduction of poverty but abandoning at the same time reasonable limits to consumption and material growth in developed countries, would not necessarily result in upholding environmental sustainability.

There are also incidents where inequality and poverty may be an evident result of environmental degradation. The authors of Brundtland Report write: A growing number of the urban poor suffer a high frequency of diseases; most are environmentally based and could be