Country Fact Sheet Belarus

Introduction

This Country Fact Sheet (CFS) provides an overview of the situation of waste statistics, as of 1 August 2017. The CFS has been completed by the Consultant for the project *Implementation of the Shared Environmental Information System principles and practices in the Eastern Partnership countries (SEIS East) - Waste Statistics.*

"This report has been prepared by Wim Van Breusegem and Jürgen Gonser. Its contents are the sole responsibility of ADE and Gopa and can in no way be taken to reflect the views of the European Commission."

The CFS has been completed mainly on the basis of:

- A desk based review of existing international reports on the waste statistics situation in the country. However, the information derived from these reports has been replaced with more recent and comprehensive information obtained from the countries directly, in particular during a country visit. A list of publications that were reviewed is included as Annex 1, at the end of this CFS.
- Information resulting from the validation by the Consultant of the UNSD questionnaire
 that was completed by the Country. The validation resulted in a Country Data Validation
 Report, which is attached to the Final Report of the Project.
- Information provided by the country, during the country visit and following the review of the draft CFS by the country. The draft CFS was submitted to the country for comments following the country visit, with the request to provide additional information or to confirm information that was supplied during the country visit. The country has sent comments and additional information, which allowed the Consultant to finalise the CFS. A list of officials that were met during the country visit, is included as Annex 2, at the end of this CFS.

Part I: Overview of existing waste surveys

Theme & topics	Description
Legal basis for waste statistics	Laws and regulations governing waste management: Law on Waste Management from 2007, last amended in 2016, introduces modern principles of waste management, including minimization of waste generation, the importance of recycling and reduction of the negative impact of waste on human health and the environment. Key provisions of the 2007 Law relate to: Definitions: MSW is defined as waste from consumption, and similar waste from production. Industrial waste is defined as waste from production. Waste classification: definition of the procedure for assigning hazard classes to generated waste. Policy: preparation of national and territorial programmes on waste management; introduction of economic incentives supporting improvements in waste management Responsibilities: of state administration in waste management and of legal and physical persons in waste management; Introduction of Extended Producer Responsibility Data collection and reporting, monitoring of waste generation activities Specific requirements for waste generators, operators of waste management is regulated by the instruction on waste management. Industrial waste management: The Law requires that industrial waste management is regulated by the instruction on waste management. MW collection: MW generated in residential areas must be collected and disposed of according to a municipal waste management scheme. Waste generated in other than residential areas, for example, cooperatives, protected or recreational areas, also has to be collected and disposed of according to an approved waste management scheme. The instruction and scheme in fact correspond to the generator's waste management plan and must be approved by territorial bodies of the Ministry of Natural Resources and Environmental Protection. Recycling: Waste should be separated at source according to types defined in the classification and stored or disposed of only in designated areas. Disposal: ban on the dumping of recyclables in disposal sites. The Law is supported by extensive sec
	the resolutions of the Council of Ministers or of the Ministry of Natural Resources and Environmental Protection, Ministry of Housing and Communal Services or Ministry of Health. Activities concerning the collection and processing of recyclables are regulated by decrees of the Council of Ministers, the Ministry of Housing and Communal Services or the Ministry of Natural Resources and Environmental

Theme & topics Description o The 2008 Resolution No. 112 of the Ministry of Natural Resources and Environmental Protection "On approval of the form of the passport accompanying the carriage of waste from production and the Instruction on the procedure of its preparation". o Presidential Decree No. 450 of 1 September 2010 on the licensing of various types of activity, including the use of wastes of hazard classes 1 to 3 and their decontamination and burial. The 2010 Resolution of the Council of Ministers "On selected issues related to waste management" No. 1104 introduces the implementing regulations for the Law on Waste Management. These include among other: the Regulation on approval of instruction for industrial waste management; Regulation on the procedure of issuing, suspending and cancelling permits for the storage and disposal of waste; Regulation on registration of waste recycling facilities, storage and disposal facilities Regulation on approval of waste generation norms. o The provisions of Resolution No. 1104 are further detailed by the 2010 Resolution No. 44 of the Ministry of Natural Resources and Environmental Protection "On selected measures to implement Resolution No. 1104 of the Council of Ministers dated 23 July 2010". o Extended Producer Responsibility: The 2012 Decree of the President No. 313 "On selected issues related to management of waste from consumption" introduces procedures for implementation of extended producer responsibility and the list of recyclables regulated by these procedures, and defines recovery targets for municipal waste (waste from consumption) and for packaging. There is no progress report evaluating the achievement of these targets. The 2012 Resolution of the Council of Ministers No. 708 supplements the Decree of the President No. 313 by defining rights and responsibilities of the operator organizing collection, treatment and reuse of recyclables and packaging. This Resolution also sets product fees that are collected from importers and producers for products which will became waste, and payments for collected recyclables and packaging. Laws and regulations governing waste data and statistics: Resolution N 21 of the Ministry of Housing and Communal Services from November 30, 2001, "On approving the list of municipal waste" (see Annex 3) Law on State Statistics (LSS), November 28, 2004, No 345-3 (last amended July 13, 2016) Decree No.85 of the Ministry of Natural Resources and Environmental Protection "On the classifier of wastes" dated 08.11.2007 Resolution No. 17, 29 February 2008, of the Ministry of Natural Resources and Environmental Protection "On approval of the Instruction on the procedure of inventory of waste from production": Results of the annual waste inventory are used for development of instructions for waste management and accounting of waste management, preparation of documents for obtaining a permit for storage and disposal of waste from production, calculations of limits for the storage and disposal of industrial wastes, approval of norms for waste from production and reporting on waste to the National Statistical Committee. Decision No. 934 of the Council of Ministers, of 19 June 2010, approving the rules for maintaining a State wastes register;

Theme & topics	Description
	 Decision No. 39 of the Ministry of Natural Resources and Environmental Protection, of 17 September 2010, on certain questions related to maintaining the State wastes register. Collection of data on waste is defined in the 2014 Resolution No. 27 of the Ministry of Natural Resources and Environmental Protection. They are also laid down in the TCP 17.02-12-2014 (02120) "Environmental protection and nature use. Procedures for inventory on environmental protection and for completion of accounting forms on environmental protection". Decision Ne 208 of National Statistical Committee, of 19.09.2013, approving State statistical reporting form 1-waste (MNREP), entitled "Report on industrial waste management", Order Ne 104 of the Ministry of Housing and Communal Services, of 28 November 2016, approving a list and forms for departmental reporting in 2017 (including the report form "Report on sanitation of settlements"). The following Decrees were repealed, such as the following: Decision No. 277 of the National Statistical Committee, of 29 September 2011, approving State statistical reporting form 1-waste (Ministry of Natural Resources and Environmental Protection), entitled "Report on industrial waste management", but has been repealed in 2013. Decree of the National Statistical Committee of 31.08.2010 No. 170. The decree established the procedure of state statistics reporting "1-wastes" (Ministry of Natural Resources and Environment), but has been repealed in 2011. Order No. 143 of the Ministry of Housing and Communal Services, of 4 November 2011, approving a list and forms for departmental reporting1 (including the reporting form "Report on sanitation of settlements").
Waste definitions	 Waste: substances or articles generated in the course of economic activities and human life, which are not intended for any specific purpose at the place of their generation or which have lost all or some of their consumer properties. Hazardous waste: waste, which contains substances with one or several hazardous properties in such an amount and form that this waste itself or when in contact with other substances might present an immediate or potential danger and cause harm to the environment, citizens' health and property due to the harmful effects of this waste. Municipal waste: waste from consumption and production waste included in the list of municipal waste to be removed by local executive authorities. This list of municipal waste is defined in Resolution N° 21 of the Ministry of Housing and Communal Services. The list rather defines the sources of waste instead of the waste types covered. From the list, it is clear that the MW definition is broad, covering a wide range of waste sources. An unofficial translation of the list is attached in Annex 3 of this CFS. The list indicates that: Generally, the definition of waste used in Belarus encompasses a much wider range of materials than in international practice; it also includes by-products or materials which can be reused in production on-site. Thus, the reported data on waste are not directly comparable with waste

¹ In the Law on State Statistics, Belstat's own surveys are referred to as 'centralised state statistical observations' whereas the collection of statistical data by Ministries is referred to as 'decentralised state statistical observations'

Theme & topics	Description
	data from EU Member States.
Overview of waste	Survey on Municipal Waste
surveys / data	Annual collection of administrative municipal waste data.
sources	 Responsible institution: The Ministry of Housing and Communal Services (MoH)
	 Data are collected on the basis of the departmental reporting form "Report on sanitation of settlements" which is approved by order of the MoH, after consultation with the Interagency Council on State Statistics.
	The MOH submits the MW data to BelStat for publication.
	Data according to departmental reporting are not official statistical information. Departmental reporting forms are approved by other Ministries and governmental bodies, but not by Belstat. As such, in Belarus municipal waste data are administrative data (reporting forms are approved by Ministry of Housing and Communal Services, but they are not official statistical information. This possible to use a desirie to the data for more duction of ficial statistics. A conding to the LSS "Official statistics information means the
	• It is possible to use administrative data for production official statistics. According to the LSS "Official statistics information means the information on economic, demographic, social and environmental situation compiled through the procession of primary statistical data and (or) administrative data in compliance with the official statistical methodology. However, BelStat is not using municipal waste data for production of official statistics.
	The cooperation on MW data between MOH and BelStat is based on a agreement which was signed in 2011.
	Survey on industrial waste:
	Annual data collection.
	 Responsible: Ministry of Natural Resources and Environmental Protection. (MNREP)
	 Data are collected on the basis of the statistical report form 1-Waste "Report on industrial waste management, developed by the MNREP. BelStat approves the statistical report form and the guidelines for completing the form, and publishes the data.
	Because the reporting form 1-waste (MNREP) is approved by Belstat, the information produced by this form is official statistical information. Information of each individual form in this case is primary statistical data. According to the LSS "Primary statistical data means statistical data about an individual respondent collected though state statistical survey forms".
Institutions	National Statistical Committee of the Republic of Belarus (Belstat) (http://www.belstat.gov.by/en/)
involved	Belstat does not collect waste data itself
	 BelStat approves the statistical report form 1-waste 'Report on industrial waste management' developed by the MNREP, and the guidelines for completing the form, which qualifies waste statistics as the official statistical information.
	 BelStat cooperates with the MNREP on industrial waste and with the (MOH) on municipal waste in terms of dissemination of statistics.
	 Responsible department: Environment Statistics Unit of the Department of Agricultural and Environment Statistics
	 which has assigned 5 statisticians (including the head of unit) to the production of environmental statistics.

Theme & topics Description Ministry of Housing and Communal Services of the Republic of Belarus (MoH) (http://www.mjkx.gov.by) Waste management responsibilities: Implements the national policy of MW management, including definition of technical operational standards Coordinates collection and processing of recyclables through a specialized company, i.e. the SI "Operator of Secondary Raw Materials" organizing collection, treatment and reuse of recyclables and packaging. The company is a state institution established by the MOH for implementation of the extended producer responsibility principle. This organization receives product fees and distributes payments for collected recyclables and packaging Waste statistical responsibilities: o Collects data on MW collection and management, but on an administrative basis. The data therefore do not have the status of official statistical information; Cooperates on MW data with BelStat on the basis of an agreement. Submits the MW data to BelStat for publication Ministry of Natural Resources and Environmental Protection (MNREP) (http://www.minpriroda.gov.by/en/) Waste management responsibilities: Coordinates waste management planning, regulation and implementation, excluding recyclable materials Approves the Classification of generated waste, including definition of the level and class of hazard for individual waste types, In cooperation with the Ministry of Health and Ministry of Emergency Situations o Defines the requirements for preparation of the instruction for waste management for industrial waste, together with the Ministry of Health, Ministry of Emergency Situations and Ministry of Housing and Communal Services, and, in cooperation with the Ministry of Health, defines the requirements for preparation of the municipal waste management scheme. o Defines rules for collection, recycling and disposal of waste, in cooperation with the Ministry of Housing and Communal Services, o Issues permits for import, export and transit of hazardous waste Waste statistical responsibilities: o Responsible for the survey on industrial waste. The MNREP is an 'authorised state organisation' according to the Law on State Statistics, i.e. the MNREP is part of the statistical system and thus producer of official statistics The MNREP has contracted the Belarusian Research Centre "Ecology" that collects and processes the statistical data on industrial waste on behalf of the Ministry. The Republic Scientific and Research Unitary Enterprise "Ecology" (SRC Ecology)] The SRC Ecology is a Republican Unitary Enterprise, i.e. a para-governmental research centre. The SRC collects and processes the industrial waste data on behalf of the MNREP and transfers the aggregated data to MNREP and to

Theme & topics	Description
	BelStat
	 Interagency Council on State Statistics (Interagency Council) Advisory body established by the Council of Ministers in order to ensure coordinated decision-making in the field of state statistical surveys on the basis of scientifically proved statistical methodology.
	 Other Ministries with waste related responsibilities, and thus potential users of waste statistics, include: The Ministry of Health is responsible for regulating the management of health care waste The Ministry of Emergency Situations, as the coordinator of the management of radioactive waste and development of facilities for its safe storage (however, the transfer of these functions to the Ministry of Energy is currently under discussion) and as the ministry responsible for development and implementation of national plans for management of explosive and flammable waste. The Ministry of Trade is responsible for permitting import and export of hazardous waste to and from the territory of the Customs Union, as well as suspending, renewing or cancelling these permits.
	Local councils approve territorial waste management plans. Local executive and administrative bodies prepare and implement territorial waste management plans, organize collection of municipal waste, operation of waste disposal sites and collection of recyclables. They are also responsible for implementing measures to prevent negative impact of waste on human health and the environment.
Classifications used	 Economic activities: The National classification "Types of Economic Activities" (OKED) was since 2007 based on NACE Rev :1.1, and is since 1.1.2016 based on NACE Rev.2. The first data based on this classification will become available in 2017.
	In 2016, according to the form 1-waste (MNREP) 10,090 enterprises reported.
	"The State Register of Legal Entities and Individual Entrepreneurs, whose economic and other activities have a harmful effect on the environment", is used for the collection of data and the production of waste statistics. This Register is kept by the territorial bodies of the Ministry of Natural Resources and Environmental Protection. At registration, each legal entity is assigned a nature user number according to the place of economic or other activity, which records their environmental impact.
	An information system ensuring the interconnection of databases and registers on environmental permits, and inspection activity among them and with external partners (tax authorities, real estate register, Ministry of the Interior), is under development. Waste types: The classification (classifier) of wastes generated was approved by Decree No.85 of the MNREP "On the classifier of wastes" (dated

Theme & topics Description 08.11.2007). The waste classifier includes approximately 1500 types of waste, divided into the following groups: Waste of vegetable or animal origin; Waste of mineral origin; Waste from chemical plants and associated industries; Health-care waste; Waste (sediments) from water treatment at boiler and heating facilities and for drinking, from treatment of sewage water, rainwater and from water use for power plants; Municipal waste and similar waste from industries. MNREP intends to harmonise the waste classification with EU standards. Hazardous waste: Hazardous waste is allocated to one of four hazard classes Class I – extra-hazardous; Class II - highly hazardous; Class III - moderately hazardous; Class IV - low hazardous. The extent of danger and the hazard class of wastes generated are based on Decree No.85 of the MNREP "On the classifier of wastes". The main criterion for assigning a hazard class is toxicity of the waste The classification of hazardous waste is embedded in the waste classifier described above, and is not yet fully harmonised with the classification of Basel Convention. Waste treatment: Belarus uses national treatment definitions which are not aligned with EUR and D codes. The 2007 Law on Waste Management provides for the following definitions: o Preparation of waste for use - activities related to the implementation of technological operations performed with waste, to ensure the subsequent use of waste as a secondary raw material. The use of waste - the use of waste products for the production of electrical and (or) thermal energy, the performance of work, the provision of services. Disposal of waste - activities aimed at processing, incineration or destruction of wastes in another way, including reducing the volume of waste and (or) eliminating their hazardous properties (with the exception of waste disposal activities), not related to their use.

Theme & topics	Description
Waste indicators	 Since 2010, Belarus uses a system of core environmental indicators. In 2014, in the framework of Belarus's participation in the ECE Joint Task Force on Environmental Indicators, a set of core indicators of the Shared Environmental Information System (SEIS) was developed and published on Belstat's webpage. The indicators allow for comparisons at international level, are available in English and Russian, and cover statistics on among other waste. Not only data are available at the website but also their interpretation, as well as the methodologies by which data were produced, and links from Belstat's SEIS webpage to other data websites are provided. The following indicators are produced and published by BelStat annually: Generation of industrial waste per inhabitant (kg/cap) Generation of industrial waste by economic activity Generation of industrial waste per unit of GDP (kg/1 BYR; kg/1000 USD, PPP) Management of hazardous waste (thousand tonnes) (Data source for the industrial/hazardous waste indicators: Form 1-waste "Report on industrial waste management") Generation of solid municipal waste per inhabitant (kg/cap) Generation of solid municipal waste per unit of GDP (Data source for the municipal waste indicators: Decentralised reporting "Report on sanitation of settlements") Belstat would like to calculate total waste generated per year. However, is not sure about the methodology to be applied, given the two different sources of data (i.e. for industrial and MW waste) and would appreciate guidance on this. As of the end 2017, BelStat intends to publish the indicator data in Excel, following a UNECE recommendation.

Part II: Municipal Waste Survey (Ministry of Housing and Communal Services)

Theme & topics	Description
Municipal waste	Policy:
management	• The State Programme of Collection (Procurement) and Processing of Recyclables for 2009–2015, approved by 2009 Decree of the President
	No. 327, and updated in November 2012, aimed at increasing volumes of recyclables and development of new processing facilities. This
	Programme has come to an end and has been replaced by the following programme:
	■ The State Programme "Comfortable Housing and Favourable Environment" for 2016-2020 (subprogram "Handling Communal Waste and
	Secondary Material Resources") approved by the Resolution of the Council of Ministers №326 of 21 April, 2016.
	 Another important policy document is the National Strategy for Solid Waste Management and Secondary Material Resources, approved by

Theme & topics Description the Resolution of the Council of Ministers №567 of 28 July, 2017 The Concept for Municipal Waste and Recyclables Management for the years 2014–2020 was approved by the 2014 Order of the Ministry of Housing and Communal Services No. 78. It provides examples from international practice, describes the current situation in Belarus and defines directions for further development and improvement of municipal waste and recyclables management. Key problems in the current MSW management system identified in this document include the insufficient level of waste fees, which do not cover costs of service provision, and that the system of separate collection needs further development, planning of waste management infrastructure at oblast level is not sufficiently coordinated and the polluter-pays principle is not well emphasized in the legislation. Collection The responsibility for organizing waste collection and disposal is on local executive and administrative authorities. MSW is collected by organisations providing waste management services (both public and private). These organisations typically collects MSW from residential areas, commercial and industrial sectors, garage cooperatives and dacha cooperatives, and also operates a local disposal site. Waste collection coverage: o While in 2005 only about 72% of the population received regular waste collection services, 92% of the population was serviced in 2015. Contracts for MSW collection are agreed with individual households, and commercial and industrial clients, as well as with garage cooperatives and dacha cooperatives. Specifically for rural areas, approximately 28% of the rural population was covered by a waste collection service in 2005. Meanwhile this percentage has increased to 80%. Disposal: MSW is disposed to mini-dumpsites (minipoligoni), in remote rural areas, or to rayon dumpsites (poligoni). The number of mini-dumpsites is being reduced (but still over 1500 of them exist) and their waste is being redirected to rayon dumpsites. There are 170 rayon dumpsites in Belarus, typically one per rayon, but larger rayons may have two or three of them. These disposal sites are usually equipped with basic machinery, a weighbridge and bottom sealing. Recycling: Separation of secondary materials from MSW is strongly enforced by national legislation. The yield of recyclables keeps increasing, due to: o increased separate collection of municipal waste, providing containers for paper, cardboard, plastics and glass. Separate collection is available in the capital, oblast and rayon centres. The dry fraction is delivered for sorting and the wet fraction is sent for disposal. collection of additional recyclables through a network of buy-out points, where citizens can sell recyclables, including also includes energy saving lamps, batteries and household equipment. investment in development of waste sorting lines (waste sorting plants are operating in 81 rayons) the introduction of the extended producer responsibility (EPR) principle. The EPR scheme is managed by the state institution

Theme & topics	Description
	 "Operator of Secondary Raw Materials", which was founded in 2012. Belarus has capacity to process recyclables separated from municipal waste, but for several waste streams, the amounts collected already exceed the processing capacity. The remaining amounts are stored at sorting facilities or exported to neighbouring countries.
Purpose and use of the data	 The MOH uses the MW primarily for its own purposes, i.e. the implementation and monitoring of the national policy of municipal waste management. In the second place the data are used for the production of statistics and indicators.
Scope	
Scope of data collection: Waste types	 Resolution N 21 of the MOH, which defines the list of municipal waste, specifies the origin of waste, but not the waste types. All types of wastes from the sources listed in Resolution N 21 are covered by the data collection. Separately collected waste is also covered.
Scope of data collection : Origin of waste	Data collection covers households and basically all economic activities that are commonly referred to as the service sector (NACE Rev.2, sections G to U). The secondary sector (approximately the same as manufacturing), and the primary sector (raw materials) are not covered. For details please refer to Annex 3.
Data / information collected	 MW data are collected on the basis of the reporting form "Report of sanitation of settlements". Data are collected on the following variables: Municipal waste disposal facilities: data on the number of facilities, installed capacity, free capacity Municipal waste sorting and processing facilities: data on the number of facilities, installed capacity, volume of processed municipal waste, separation of recoverable resources, wastes disposed of at landfills Municipal waste collection, removal and disposal: data on the number of settlement covered with sanitation and cleaning services, municipal waste collection and removal) Collection and recovery of recyclables: data on recycling by types of materials The unit of measurement is m³. The law requires reporting in m³, which are estimations based on vehicle capacity mainly due to the fact
Time schedule of survey	 that mini-dumpsites are too small for weighbridges. Annual approval (by the end of the year) of the list of reporting departmental forms and of the reporting departmental forms themselves, by order of the Ministry of Housing and Communal Services (MoH), after consultations with the Interagency Council on State Statistics. After the approval, the MoH sends the information to the regional executive and administrative authorities. They work with local authorities (rayon level), local authorities – with organizations which have to report. Information of reporting units of their obligation: after the approval of the reporting departmental forms (by the end of the year). Deadline for reporting units to submit the Report on the sanitation of settlements: 12 February The MoH receives the data on 25 of March. The frequency and stages of collection of the form are published on the form.
Documentation on	The frequency and stages of collection of the form are published on the form. There is no official document on the survey methodology.

Theme & topics	Description
survey methodology	
Data collection	
Data sources(s) / reporting unit	 The respondents are the entities dealing with management of municipal wastes, i.e. collection, removal, sorting, treatment, processing, neutralization, and landfilling). The "Scheme of management of solid municipal waste" approved by local administrative authorities, can be used as source to identify the reporting units.
Data collection methods	Full survey
Frequency	The reporting on the sanitation of settlements is annual.
Data collection tools	A reporting form, which is provided electronically.
Data collection process	 Local executive and administrative bodies inform respondents about the reporting obligation. The MoH sends reporting instructions and clarifications to all interested parties (in Russian).
Data processing	
Data entry	 The data are entered manually into the electronic data processing (EDP) system. Local authorities prepare a set of reports on each local level, which they subsequently send to the regional level. Region authorities prepare a single set of reports at the region level, which they send to the subordinate organization of the Ministry of Housing, which is the Unitary Enterprise "Belcommunproect". Belcommunproect prepares a set of reports on the national level, which they sent to the MoH. During the forming of each set of reports, specialists perform formal, logical, arithmetical checks.
Data validation	 BelStat carries out quality checks at the aggregated level and may ask questions to the MOH in case of inconsistencies. Formal, logical, arithmetical checks are performed.
Data compilation	 If specialists realise that some data is missing, they try to identify the organisations that did not report and try to receive the report from them. A factor of 0.18 t/m3 is used to convert the volume of municipal waste into tons. This factor was determined through studies based on insitu measurements. The factor is established by the Order №194 of the MoH from December 21, 2010, "On the approval methodological recommendations and standards"

Theme & topics	Description
Data quality	
General aspects	A defined quality policy is not followed. The work is carried out according to the applicable legislation.
Relevance	The data meet the needs / requirements of the users.
Completeness	Data on MW disposal are collected since 1990.
	 Data on MW recycling, i.e. data on the volume of waste processed at sorting lines, sorting and loading stations and solid waste processing plants, are collected since 2011.
	• The country has difficulties with the methods of accounting of secondary raw materials. It is expected that the National Strategy for Solid Waste Management and Secondary Material Resources (approved by the Resolution of the Council of Ministers of the Republic of Belarus №567 of 28 July, 2017) is a first step in improving the availability of data on secondary raw materials.
Accuracy	Coverage errors:
	The survey does not cover 100% of the collected and treated waste, but covers practically 100% of the territory.
	Estimates to cover MW that is not collected by the reporting units, are not produced.
	• Waste that is not collected by the reporting units (e.g. waste that is burnt in rural areas) does most likely represent only a small amount. Support, that this is small value. For example in rural areas people burn their waste themselves.
	Measurement errors:
	• MW amounts are based on a combination of direct weighing of MSW and recalculation of m ³ to tons using a factor of 0.18 t/m3.
	This factor was determined through studies based on in-situ measurements
	Non-response errors:
	<u>Processing errors</u> : Most errors are made by the reporting units, when completing the reporting form.
Timeliness and punctuality	The timeliness of the results is sufficient for the data users.
Comparability and	• There have not been any changes in definitions, in data coverage or in methodology that have a significant impact on the time series of the
coherence	produced data. There was a significant change in 2011? But this related to the addition of new variables to the reporting form.
	The data are comparable across the whole country.
Accessibility and	BelStat publishes municipal waste data through:
clarity;	- the yearly publication "Environmental Protection in the Republic of Belarus"
dissemination	- as MW indicators on the <u>BelStat website</u> .
	 Since 1991, the MNREP and the Institute of Nature Use of the National Academy of Sciences of Belarus publish annual Environmental

Theme & topics	Description
	Bulletins "State of environment in Belarus", which also include MW data. Waste information is also available in a number of state cadastres and registers: the cadastre of wastes; the register of facilities using waste
	and the register of facilities for storage.
Cost and burden	In the Ministry's view, the data collection is not a significant burden to the reporting units.
Confidentiality	Departmental reporting data are not statistical information, but administrative data and their confidentiality is covered by orders of ministries
	which are responsible for the departmental reporting.
Data management as	nd storage
Data management	The data are manually entered into spreadsheets (Excel)
Data storage	Survey data are archived electronically.
	Data from previous data collections are easily available and usable for data comparison with previous years.

Part III: Industrial Waste Survey (MNREP)

Theme & topics	Description
Purpose and use of the data	MNREP claims that waste statistics are of utmost importance for evidence-based policy making, e.g. for decision on required capacities.
Scope	
Scope of data collection: Waste types	The industrial waste survey covers all types of industrial waste.
Scope of data	According to the data reported in the UNSD questionnaire, the survey covers the following economic activities:
collection : Origin of waste	Agriculture, forestry and fishing (NACE 01-03) Agriculture, forestry and fishing (NACE 05-00)
of waste	 Mining and quarrying industry (NACE 05-09) Manufacturing industry (NACE 10-33)
	 Manufacturing industry (NACE 10-35) Energy sector (NACE 35)
	Construction sector (NACE 41-43)
	Other economic activities Other handle section is a section of the section of t
Data / information	 According to the form 1-waste (MNREP) data are collected on following variables:
collected	o Generation,
	o Utilisation,
	Disposal: storage facilities; burial sites; onsite storage; neutralization.
	Import/Export,Received from individuals and organisations/Sold to organisations
	The data are published at national, regional, city and district level.
	 Industrial waste data are collected and published in tonnes.
	Facility operators are obliged to store environmental data, including on air emissions, water use and discharge, and industrial waste
	management together with other operational, management and environmental information, in the so-called "environmental passport" of the
	enterprise. It is these data that the companies will report, through separate statistical forms air emissions, water use and discharge, and
Time schedule of	industrial waste management.
	• 20 January (according to the address part of the form 1-waste): enterprises submit the completed form to the Belarusian Research Centre "Ecology".
survey	 20 April: submission of the processed and aggregated data to the MNREP.

Theme & topics	Description
	30 April: processing and submission of the data by the MNERP to BelStat.
Documentation on survey methodology	 The methodologies that are used to produce industrial waste statistics are not yet documented in writing, or at least not comprehensively. The process of production of industrial waste statistics is documented by reporting form 1-waste (MNREP) (on the first sheet of the form) and guidance for filling it out, which are confirmed by Belstat.
Data collection	
Data sources(s) / reporting unit	 In principle all companies that handle, i.e. generate and/or manage industrial waste must report, with the exception of: Individual entrepreneurs, which are exempted from the reporting obligation; Companies that generate not more than 50 tonnes of office waste, i.e. waste similar to household waste (e.g. paper and cardboard waste, packaging waste, used luminescent lamps). In case of other types of wastes generation submission of a statistical form becomes obligatory irrespective of their quantity. Thus, the production waste producers, as well as economic entities, operating treatment facilities have to submit annually a statistical report. The number of respondents amounts to about 10 000 but can vary from year to year The reporting units are not actively identified, i.e. there is no list of companies that should report. As reporting is mandatory, all companies are expected to be aware of their legal. Belstat has approved the instruction for completing a reporting form 1-waste (MNREP). Usually the instructions are approved at the samte time as the statistical reporting form. In 2016, 10,090 enterprises reported by completing the form 1-waste (MNREP).
Data collection methods	Full survey of obligated companies (exemptions see above)
Frequency	Annual
Data collection tools	 The reporting forms can be downloaded from legal portals, such as the website of MRNEP and are completed and submitted in paper form. Online-reporting with electronic signature was mentioned by the MNREP as a long-term objective.
Data collection process	 Legally obligated companies are expected to be aware of their legal obligation and are expected to report every year by themselves, without receiving any notice or request. Companies send the completed paper forms to the SRC Ecology. Limited guidance is provided to the respondents in the order that approves the reporting form. SRC Ecology organises training courses for legal entities, specifically on their reporting obligations. Non-responses are being followed-up by contacting the units that should report, either by phone or by e-mail.
Data processing	
Data entry	SRC Ecology enters them manually in the database

Theme & topics	Description			
	The MNREP would like to establish a system of online reporting, but this has not yet been planned.			
Data validation	 Industrial waste data are validated by SRC Ecology. Validation is partly done by the electronic system (e.g. checking of the balance), partly by those that enter the data. Validation at company level is limited to the main waste generators, i.e. to the companies that together account for about 75% of the generated wastes. Further validation checks are carried out at oblast and rayon level. The validation is limited to arithmetic and logical checking, which is Types of checks that are performed include: Formal checks, include for example checks the technical integrity of the data set, e.g. valid data type, field length, characters. checks for completeness (data reported: yes/no) use of the correct units of measurement Logical checks, include for example: checks relations between different cell in the data set, such as verification of the balance of waste (e.g. cell 1 =>>, < cell 2; IF-THEN relations; total = sum of breakdown) checks for correct classification and coding of the waste and of waste treatment operations Arithmetical checks, may aim at logical relation or at data consistency and are based on numerical calculation. Such checks include for example comparison with previous years and availability of balances at the beginning and end of the year. BelStat analyses the data ion aggregated form and ask clarification requests in case of implausible data. BelStat cannot correct errors itself (and neither can the MNREP or SRC Ecology); if errors are spotted that require changes, these can only be made by the reporting units themselves. 			
Data compilation	 If specialists realise that some data is missing, they try to identify the organisations that should report and to receive the report from them. If the data are not in the units of measurement that are used by Ministry, they are converted, using the established conversion factors (from cubic meters per ton, the transfer is carried out depending on the density and types of waste). Once the conversion is done, the company must resubmit its report, with the appropriate conversions. Data are aggregated by economic activity, region (Oblast) and rayon, and submitted in aggregated form to the MNREP There is no extrapolation done for the companies that handle less than 50 tonnes or for the non-responding companies. BelStat receives the industrial waste data from the Ministry of Environment for publication. 			
Data quality				
General aspects	A defined quality policy is not followed. The work is carried out according to the applicable legislation, in particular the Law on State Statistics			
Relevance	The data meet the needs / requirements of the users.			
Completeness	Data on hazardous waste generation by generating economic activity have not been reported so far but will be available in the future.			

Theme & topics	Description
Accuracy	Sampling errors: Not applicable
	 Coverage errors: There is no extrapolation done for the companies that are not covered by survey. The MNREP confirms that the fact that companies are expected to report upon their own initiative each year, without being invited, and the fact that there is no list of companies that is maintained, could mean that a number of companies is not reporting, and that therefore the set of data is not complete. According to the UNECE Environmental Performance report [15], the definition of waste used in Belarus encompasses a much wider range of materials than in international practice; it also includes by-products or materials which can be reused in production on-site. Thus, the reported data on waste are not directly comparable with waste data from, for example, Western Europe. [15 Measurement errors: Waste generated during the process of economic production, which has to be stored and disposed, is subject to tax. The environmental tax does not apply to storing the production waste meant for further disposal, neutralization or use, until there is a sufficient amount of waste accumulated in order to be transported to disposal, neutralization and waste use facilities. The tax has to be paid by legal entities that have generated the waste or by legal entities that have acquired ownership rights to production waste generated by other legal entities. There is an incentive for underreporting, as the basis for the environmental tax declarations is the volume of generated waste subject to disposal and storage, which is reported in the special state statistical forms.
	 Non-response errors: There is no systematic monitoring whether all obligated companies have reported which may led to an underestimation of waste amounts. Because the Ministry does not have a list of respondents, who must report, specialists from SRC "Ecology" compare the amount of big companies which are regular reporters. In any case, in Belarus such big companies are main producers of waste. As such, the impact of non-responses on data quality should be minor.
	Processing errors can include among other errors of waste balance, errors in coding the type of waste and data entry errors.
Timeliness and punctuality	The timeliness of the results is sufficient for the data users.
Comparability and coherence	There have been no significant changes in data coverage or in methodology that have a strong impact on the time series of the produced data.
	The same methodology is used across the whole country, and the produced data are thus comparable across the whole country. There are no regional particularities?
Accessibility and	BelStat publishes industrial waste data in several statistical publications, including among other:

Theme & topics	Description			
clarity;	- the yearly publication "Environmental Protection in the Republic of Belarus"			
dissemination	- as indicators on the <u>BelStat website</u> .			
	 MNREP publishes industrial waste data through the State of the Environment Reports. 			
Confidentiality • For a number of environmental data sets, the confidentiality can be waived, as a result of the constitution, proclaim				
public has the right to know the state of the environment (based on Aarhus).				
Important: In the publications the statistical confidentiality rules are followed.				
Data management and storage				
Data management	nagement The data are entered into Database management systems (DBMS) Microsoft Access 2010.			
Data entry into the system is done manually.				
Data storage	The State Inventory of Wastes, established by Decision No. 934, is formed on the basis of data provided by regions, districts and the city of			
Minsk, including official statistical information on industrial waste.				

Part IV: Key potential activities

Theme & topics	Activities for improving data availability and quality
Waste management	the organization of management of waste and secondary raw materials. The MRNEP is interested in support with: Development of a new Waste Framework Law and of a waste classification, in line with EU legislation and requirements, which is planned for the 1st half of 2018. (The Consultant clarified that the ENI SEIS II project and any follow-up project could only support
	statistical activities, but that he will nevertheless inform Eurostat of the requested support, as they may wish to discuss with their colleagues at the European Commission). The development of a better understanding of the recycling opportunities for the various types of waste. MW statistics could be the focus of any follow-up EU funded statistical project. The MNREP needs to know in which geographical areas the critical quantities of waste are generated to justify investment in the establishing of specific waste treatment (including recycling) facilities.
Institutional	 Better cooperation and coordination between the organisations involved in the data collection and processing: A relatively high number of organisations involved, which makes the situation complex, and which may affect data quality. The MRNEP, as the key regulator, finds it difficult to reconcile the positions of different stakeholders on the quantities of waste that are generated and managed.

Theme & topics	opics Activities for improving data availability and quality				
	• A proper documentation of the survey methodology is missing. A detailed documentation of the survey methodologies would enhance transparence and facilitate cooperation.				
Definitions and Classification	2 will concertain the 20 similar the 12 standards of new possibility of certain the 13 will make the 13 will				
Indicators	BelStat would welcome support with regard to the development of an indicator on total waste generation.				
Tools	Data are collected via paper forms. Considering that the industrial waste survey is a full survey the workload for reporting units and the administration could be significantly reduced through a electronic reporting system.				
Reporting units	 Monitoring responses and response rates is not possible due to the absence of a single register of respondents to collect the reports from. A single administrative register of respondents for municipal waste and secondary material resources reporting should be developed. Development of easy-to-use guidance for reporting units. Currently, limited guidance or reporting instructions are provided. 				
Validation	The validation process is not transparent. Areas for improvement are seen in particular with regard to: - the identification and the follow up of non-responding companies; - the establishment of defined validation checks; - strengthening validation by the organisations that are involved in data collection. - an assessment and a documentation of the data quality.				

Annex 1: List of publications

The following publications have been reviewed for the preparation of the country mission and the completion of the Country Factsheet:

- 1. EUROPEAN UNION, EEA (2014) European Neighbourhood and Partnership Instrument Shared Environmental Information System: How existing municipal solid waste data in ENPI East countries can be used for the development of waste indicators, Final Report. European Environment Agency, Denmark
- 2. EUROPEAN UNION, EEA (2015) Towards a Shared Environmental Information System (SEIS) in the European Neighbourhood, Final Report. European Environment Agency, Denmark
- 3. EUROPEAN UNION, UNECE (2015) Advancing the production and sharing of an extended set of 14 environmental indicators in the countries of the Eastern European Neighbourhood. European Environment Agency, Denmark
- 4. EUROPEAN UNION, EEA (2015) ENPI-SEIS East Region Synthesis Report Building a Shared Environmental Information System with the Eastern Neighbourhood Outcome of cooperation, 2010–2014. Luxembourg: Publications Office of the European Union, 2015
- 5. EUROPEAN UNION, UNECE (2012) Conference of European Statisticians: Review of Waste Classification Procedures and Identification of Alternative Approaches
- 6. UNECE (2012) Desk Study: Assessment of the capacity of countries of EECCA to produce statistics on sustainable development and environmental sustainability Topic 1 waste statistics (under the UN Development Account project.)
- 7. UNECE (2015) Progress in the production and sharing of core environmental indicators in countries of South-Eastern and Eastern Europe, Caucasus and Central Asia. Geneva: United Nations Economic Commission for Europe
- 8. Zharkina, N., Poleshchuk, Y. (2016) Waste Management in the Republic of Belarus. Presentation held at the 1. Regional SEIS East workshop, 6./7. June 2016, Batumi, Georgia
- 9. EU, EEA (2012) The Republic of Belarus Country Report European Neighbourhood and Partnership Instrument, Shared Environmental Information System. August 2012, Minsk, Republic of Belarus
- 10. EU, EEA (2014) Belarus Country Report Towards a Shared Environmental Information System in the European Neighbourhood; ENPI-SEIS Implementation of priority data flows, March 2014, Minsk, Belarus,
- 11. EUROSTAT, EFTA, UNECE (2013) Adapted Global Assessment of the National Statistical System of Republic of Belarus. Republic of Belarus
- 12. Sazonova, O. V. Waste Classifying. Statistical Accounting on Waste Management. Management of Transboundary Movement of Hazardous Wastes in Belarus. Presentation.
- 13. BELARUS (2013) Municipal Waste Statistics in Belarus. Presentation held at the UNECE/EUROSTAT/EEA follow-up workshop on waste statistics on 4. November 2013 in Geneva.
- 14. BELARUS, National Statistical Committee of the Republic of Belarus (2015) Environmental Protection in the Republic of Belarus, Statistical Book. Minsk: National Statistical Committee of the Republic of Belarus
- 15. UN, UNECE (2016) Environmental Performance Reviews Belarus Third Review. Environmental Performance Reviews Series No. 44, United Nations Publication, New York and Geneva, 2016
- 16. UNSD/UNEP Questionnaire 2016 on Environment Statistics, Section Waste,
- 17. Clarification Requests to UNSD-Questionnaire 2016

18. Technical Report 2, Waste Classification Approach for ENPI East Countries, ENPI East Waste Governance Project, Kiev, December 2010.

Annex 2: List of stakeholders met during the country mission (27-28 April 2017)

National Statistical Committee (Belstat):

- Zoya Yakubovskaya head of the Main Department of Agricultural and Environment Statistics.
- Ekaterina Poleshchuk head of the Environment Statistics Unit.
- Natalya Barten consultant to the International Cooperation Unit.

Ministry of Natural Resources and Environmental Protection (MoN):

- Natallia Zharkina head of the Department of Analytical Work, State Policy and Regulation
- Vladimir Markov consultant of the Department of Analytical Work, State Policy and Regulation
- Svetlana Kazakevich deputy head of the International Cooperation Unit
- Tatiana Golub consultant of the Department of Waste Management
- Ekaterina Romasko consultant of the Department of Waste Management

The Republic Scientific and Research Unitary Enterprise "Ecology":

Ekaterina Gutseva – specialist.

Annex 3: Resolution of the Ministry of Housing and Communal Services Republe of Belarus

RESOLUTION OF THE MINISTRY OF HOUSING AND COMMUNAL SERVICES OF THE REPUBLIC OF BELARUS

November 30, 2001 N 21 On approving the list of municipal waste In accordance with Article 12 of the Act of November 25, 1993 N 2609 - XII "On Waste" as amended by the Act of October 26, 2000 N 444 - W (National Register of Legal Acts of the Republic of Belarus, 2000, N 106, 2/218) the Ministry of Housing and Communal Services of the Republic of Belarus has decided

- 1. Approve the list of municipal waste in accordance with Annex hereto.
- 2. This Decision shall enter into force on January 1, 2002

LIST OF MUNICIPAL WASTE

	Name of waste		Origin
1	Waste from living activities of the population, streets and households		Residential areas, buildings and housing areas
		Б	Dormitories, kindergartens, nurseries, etc.
		В	Hotels and resorts, recreation centres, boarding schools, nursing homes, etc.
		Γ	Streets, driveways, street-embankments, squares, intra-territory squares, parks, mass recreation, beaches, cemeteries, public toilets, urban transport buildings and other facilities improvement
2	Waste from research and educational institutions, sports, cultural and religious activities	A	Schools, boarding schools, vocational, technical, research and higher education institutions (excluding chemical and Physico-Technical Laboratories), etc.
		Б	Palaces, theatres, museums, archives, libraries, recreation centres, clubs and other cultural centres
		В	Stadiums, sports centres, playgrounds, etc.
		Γ	Churches, cathedrals and other religious institutions

3	Waste from trade, social amenities and transport activities	A	Indoor and outdoor markets, kiosks
		Б	Department stores, shopping centres, food stores, consumer goods and books shops and other businesses trade
		В	Restaurants, cafes, bars, canteens and other catering enterprises
		Γ	Commerce and warehouses
		Д	Home stores, sewing studio clothing, footwear, household repairs equipment, hairdressing (without technological industries)
		Е	Financial institutions
		Ж	Travel agencies, social security services, real estate agencies, print, radio, TV stations
		3	Public organisations
		И	Rail and road stations, wharf, river ports and airports, subway stations, dispatching and control points, routing schemes, public transport, etc. (without technological industries)
4	Administrative and waste management and household economic activities	A	Administrative and managerial building public bodies
		Б	Buildings and squares business entities (without technological industries)
		В	Administrative-household industrial building enterprises (excluding technological industries)
5	Waste from medical institutions	A	Pharmacies, hospitals, polyclinics, dispensaries (without surgical wards and procedural)