Country Report - Kazakhstan

Capacity Building Activities under the European Commission funded project on Enhancing capacity for measuring progress towards the Environmental Dimension of the SDGs, 2020-2023

Table of Contents

1. Introduction

The project Enhancing Capacity for Measuring Progress towards the Environmental Dimension of the Sustainable Development Goals (SDGs), funded by the European Commission, was instituted to strengthen national capacity for monitoring and reporting on the environmental dimension of the SDGs, including SDG indicators 8.4.1/12.2.1 on material footprint, 8.4.2/12.2.2 on domestic material consumption, 12.3.1b on food waste, 12.4.2 on hazardous waste generated and treated, 12.5.1 on national recycling rate and 17.14.1 on policy coherence.

Three tools were newly developed to assist in the compilation of the data necessary to calculate the values for SDG indicators 8.4.2/12.2.2, 12.4.2 and 12.5.1. These tools are formed of (i) Excel spreadsheets containing detailed variables that are calculated together to generate the value of SDG indicators, and (ii) step-by-step documents to guide government officials on filling the Excel spreadsheets.

National activities were implemented in different formats in beneficiary countries in Africa and Asia. The aims of the national activities were to deepen government officials' understanding of the adopted methodologies for SDG indicators, to equip them with the necessary statistical capacity to report on these indicators and as these indicators require data from multiple national stakeholders, engage all stakeholders together for future collaborations.

The following national activities were implemented in Astana, Kazakhstan between 22 May and 02 June 2023 and in Paris, France from 28 to 29 November 2023:

- In-country technical assistance mission on material flow indicators (SDG indicators 8.4.1/12.2.1 and 8.4.2/12.2.2);
- In-country technical assistance mission on waste indicators (SDG indicators 12.4.2 and 12.5.1); and
- Out-of-country training on food waste indicator (SDG indicator 12.3.1b).

2. SDG material flow indicators: in-country technical assistance mission *(22-29 May and 01-02 June 2023)*

Key Observations

- The Institute of Economic Research is the secretariat for monitoring the implementation of the SDGs in Kazakhstan.
- The Department of National Accounts of the Bureau of National Statistics (BNS) is the lead for the material flow accounts (MFA).
- A total of eight days were devoted to compiling material flow accounts.
- Kazakhstan received assistance from the OECD to set up their MFA. A line-by-line review of the current methodology was undertaken, and gaps identified. These gaps included line items for Crop residues (used) and fodder crops and for Mixed/compounded products in Tables B and C.
- MFA – Material outflows: For air emissions, Kazakhstan retains a consultant to calculate greenhouse gas emissions and to report these to the secretariat for the Convention on Climate Change. There is currently no emission inventory for other air pollutants of concern. The Ministry of Ecology and Natural Resources could be

encouraged to quantify non-GHG emissions, in particular emissions from the transportation sector.
- Areas that needed clarification include:
  o Given that national data are collected under the territorial principle, more guidance is needed on estimating amounts based on the residential principle. If amounts are only available calculated on territorial principle, can they be used as such?
  o Waste landfilled (uncontrolled) needs to be clearly defined. The amount of waste disposed into the wild is challenging to estimate. Sites where waste is disposed of illegally are identified yearly. Once located, waste is removed and disposed of in a municipal landfill. Should this waste be considered as waste landfilled (uncontrolled) if the removal occurs a year after it was identified or initially discarded?
  o The meaning of Waste for final treatment and disposal (line B.6 and C.6) is not clear. Specifically, what is meant by final treatment?
  o It was noted that Eurostat's Economy-wide material flow accounts handbook (2018) includes a line for "Water contained in imported beverages" in output balancing items, but there is no corresponding line in the compiler. What is the reason for this difference?

Conclusions

Kazakhstan already has on hand much of the data required to calculate their MFA (Indicator 8.4.2/12.2.2). Kazakhstan is not yet able to estimate its material footprint (Indicator 8.4.1/12.2.1) as it lacks the capacity to estimate in raw material equivalents of imports and exports. The estimation of raw material equivalents of import and exports is a complex assessment, which is currently beyond national capacity.

Recommendations

- To modify the compiler and worksheets to address the comments made above; and
- UNEP to consider ways to support countries so that they can estimate emissions based on the residential principle and to calculate their material footprint, which could include taking a regional or sub-regional approach.

Way forward

- The BNS is committed to completing the material flow accounts, beginning with indicator 8.4.2/12.2.2; and
- A representative from the BNS will request ongoing support from UNEP in completing the accounts.

3. SDG waste indicators: in-country technical assistance mission *(30-31 May 2023)*

Key Observations

- The Institute of Economic Research is the secretariat for monitoring the implementation of the SDGs in Kazakhstan.
- Two days were devoted to indicators 12.4.2 and 12.5.1.
- Hazardous waste: Kazakhstan does not report information on hazardous waste generation to the Basel Convention as this is not mandatory. There are data available

on total hazardous waste generated based on national definitions, however, these data do not distinguish between waste streams including hazardous municipal waste (either Basel Convention or UNSD economic sectors).

- Areas that needed clarification include:
    - There are discontinuities in the data used for UN reports on the SDGs. For example, the graphs produced in the scorecard (https://wesr.unep.org/scorecard/) and country profiles (https://country-profiles.unstatshub.org/kaz) do not refer to a change in definition of hazardous waste that would affect the amounts of hazardous waste reported. It was also noted that the values are slightly different between the two sets of graphs. The cause for the difference was not clear.
    - It was noted that there is a large discrepancy in quantities of e-waste generated from the UNSD/UNEP Questionnaire 2020 on Environment Statistics (https://unstats.un.org/unsd/envstats/Questionnaires/2020/Tables/Total%20ewaste%20generated.xlsx). For example, in 2017, Kazakhstan estimated a generation of 10 thousand tonnes, while Uganda reported 18,547 thousand tonnes. A possible unit conversion error could be further investigated.

Conclusions

Kazakhstan already has on hand much of the data required to report on indicators 12.4.2 and 12.5.1.

Way forward

- Representatives from the Ministry of Ecology and Natural Resources can use the identified data sources to calculate both indicators.

4. SDG food waste indicator: out-of-country training *(28-29 November 2023)*

Key Observations

- The representatives of Kazakhstan were contacted in advance to prepare information that is relevant to food waste in their country, so available information can be identified in advance.
- The representatives showed high interest in the training; multiple questions were asked to clarify information and discussions took place regarding the actual status in Kazakhstan, and how they can leverage their country's data situation to be able to collect and report on SDG indicator 12.3.1b.

Conclusions

The training concluded with a brainstorming on a national action plan to start the collection of food waste related information. As the participants were representing different institutions, it was beneficial for them to discuss how they can collaborate.

Way forward

- The representatives from the Bureau of National Statistics and the Ministry of Ecology and Natural Resources will collaborate to collect and compile data about food waste and draft an initial starting point to plan the collection of food waste data;

5. Additional Resources

<u>Technical materials</u>

All relevant technical materials are available on the project website under 'Output I'.

<u>List of participants – Material flow indicators (22-29 May and 01-02 June 2023)</u>

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List of participants – Food waste indicator (28-29 November 2023)

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Agenda - Material flow and waste indicators (22 May – 02 June 2023)

Date	Time	Session	Lead/Presenter
22 May 2023		Opening	Bureau of national statistics
		Introductions	
		Objectives of the workshop	Consultant - UNEP
		National Context	Bureau of national statistics
		Overview of the selected indicators 12.2.1 on material footprint 12.2.2 on domestic material consumption 12.4.2 on hazardous waste generated 12.5.1 on national recycling rate	Consultant - UNEP
		Part A: Economy-Wide Material Flow Accounts	
		Introduction Economy-Wide Material Flow Accounts	Consultant - UNEP
		Overview of data needed for the economy-wide material flow accounts and their potential sources	Consultant – UNEP
		Overview of data available in Kazakhstan	Bureau of national statistics
23 May 2023		Introduction to the compiler • Domestic extraction (DE) • Imports and export of materials • Material outflows • Balancing items • Headline indicators	Consultant – UNEP
		The compiler, step-by-step Domestic extraction (DE) - Table_A A.1 Biomass, A.2 Metal ores, A.3 Non-metallic minerals, and A.4 Fossil fuels	Consultant – UNEP
24 May 2023		Imports and export of materials – Table_B, Table_C	Consultant – UNEP
		Material outflows – Table_D	Consultant – UNEP

Date	Time	Session	Lead/Presenter
		Balancing items – Table_E	Consultant – UNEP
		Headline indicators – Table_F	Consultant – UNEP
25 May 2023		Using the compiler - Hands-on	Consultant – UNEP
26 May 2023		Using the compiler - Hands-on *continued*	Consultant – UNEP
		Next steps and closing	Bureau of national statistics

Date	Time	Session	Lead/Presenter
		Part B: Hazardous waste and recycling	
29 May 2023		Opening	Bureau of national statistics
		Introductions	
		Objectives of the workshop	Consultant - UNEP
		National Context	Bureau of national statistics / Ministry of Ecology, Geology and Natural Resources
		Indicator 12.4.2 on hazardous waste generated	Consultant - UNEP
		• *Hazardous waste generated (in tonnes, per km sq. of land area and per capita)* • *Hazardous waste generated by type, including e-waste* • *Proportion of hazardous waste treated* • *Environmentally sound treatment of own generated hazardous waste* • *Hazardous waste intensity of production*	Consultant - UNEP
30 May 2023		Indicator 12.4.2 on hazardous waste generated - *continued*	Consultant - UNEP
		Indicator 12.5.1 on national recycling rate	Consultant - UNEP
		• *National recycling rate* • *Total Waste Generated (excluding construction, mining and agriculture) by type, including e-waste* • *National recycling rate by type of waste, including e-waste (other possible disaggregation include, metals and packaging waste)* • *Waste intensity*	Consultant - UNEP
31 May 2023		Indicator 12.5.1 on national recycling rate - *continued*	Consultant - UNEP
		Introduction to the worksheets	Consultant - UNEP
01 June 2023		Using the worksheets – Hands-on	Consultant - UNEP
02 June 2023		Using the worksheets – Hands-on *continued*	Consultant – UNEP
		Next steps and closing	Bureau of national statistics / Ministry of Ecology, Geology and Natural Resources

Agenda – Food waste indicator (28-29 November 2023)

TUESDAY 28 NOVEMBER 2023		
09:30 – 10:00	**OPENING AND INTRODUCTIONS**	**UNEP**
10:00 – 10:30	SDG indicator 12.3.1b	UNEP
10:30 – 11:00	Definitions: food, sectors, measurement methods	WRAP
11:00 – 11:30	*COFFEE BREAK*	
11:30 – 12:00	Household: measuring in a Level 2 approach	WRAP
12:00 – 12:30	Approaches to sampling and designing representative samples	WRAP
12:30 – 13:00	Household measurement planning exercise	WRAP
13:00 – 14:00	*LUNCH BREAK*	
14:00 – 14:30	Household level 3: Edible/inedible, destinations, other useful information for strategies	WRAP
14:30 – 15:00	Diaries, causes and drivers of waste	WRAP
15:00 – 15:30	Edible/inedible food exercise	WRAP
15:30 – 16:00	COFFEE BREAK	
16:00 – 16:30	Looking ahead to tomorrow: food service and retail subsectors	WRAP
16:30 – 17:00	Defining priority subsectors	WRAP

WEDNESDAY 29 NOVEMBER 2023		
09:30 – 10:00	**Food service introduction and sector definition**	**WRAP**
10:00 – 10:30	**Measurement methods**	**WRAP**
10:30 – 11:00	Sampling and scaling	**WRAP**
11:00 – 11:30	*COFFEE BREAK*	
11:30 – 12:00	**Retail measurement methods**	**WRAP**
12:00 – 12:30	*Sampling and scaling*	*WRAP*
12:30 – 13:00	Retail Level 3: edible/inedible and food surplus	WRAP
13:00 – 14:00	*LUNCH BREAK*	

14:00 – 16:45	**Working on a measurement strategy in your country:** 　　Filling in measurement strategy template 　　Finding and using data for purposes of designing samples 　　Thinking about mapping stakeholders, identifying responsibility and putting the systems in place to make the most of data	WRAP
16:45 – 17:00	**Next steps and conclusions**	**UNEP**

Food Waste Strategy for Kazakhstan

Proposed deadlines and next steps
The proposed timeframe is no earlier than 2025, covering approximately 300 households and about 70 enterprises **If possible, conduct a pilot survey in the northern and southern regions (for example, 2 cities, the capital and another southern city, as well as in two rural settlements)**
Describe your proposed plan for measuring food waste at the national level
Household sector Households - *- in particular, your sampling strategy (how many households, in which places, which key categories of the population, during which seasons? Etc.)* **300 households and about 70 enterprises** *Your approach to measurement (how will waste be collected? What level of disaggregation will there be?)*
The period is spring, April 2025 **1) 150 households are in urban areas and 150 in rural areas** **2) Household sampling conditions use the same approach as that available for the Household Quality of Life survey** **3) questionnaires should be compiled taking into account the requirements and also based on international experience (it is possible to study the proposed options)** **4) Disaggregation should be taken into account in accordance with national requirements**
Food-service public catering,   *in particular:* - *Which subsectors will you give priority to? It is recommended to consider at least three.* - *- Your approach to measurement (what methodology or methodologies? This may vary for different subsectors)* - *- Your approaches to the sample (which enterprises, in which areas, how many?)*
We offer the following categories 1) *In the education sector (10 schools, 5 preschools, 5 educational institutions)* 2) *Health care (10 hospitals)* 3) *Cafes and restaurants (10 catering establishments, 5 cafes, 10 restaurants preferably with a variety of cuisineСанатории (5)*

Retail sector

trades that you should cover:

- *- Your approach to measurement (what methodology or methodologies? This may vary for different subsectors)*
- *- Your approaches to the sample (which enterprises, in which areas, how many?)*
- *- Your strategy for attracting the sector (are there any large companies that you could work with? Is it possible to apply a legislative or voluntary approach?).*

1) **Supermarkets and grocery stores 10**
2) **Markets 5**

What do you need to get started

Who are the key stakeholders?

Think about government departments that can play a role in providing data or supporting research. Consider whether regional/state governments should play a role in data collection. Consider the large enterprises that may need to be involved in the process.

First, it is necessary to identify an independent association or research institute that will be interested in conducting the survey, as well as interested in the results obtained. The same company should develop a mock-up of the questionnaire diary participating in the survey. They should also submit a draft action plan for the upcoming study. And an approximate budget for conducting this survey should be drawn up.

In Kazakhstan, according to the Environmental Code, the regulation of municipal waste management is the responsibility of local executive bodies. In this regard, mandatory assistance in conducting and accompanying the study by local executive bodies should be provided. On their part, responsible persons should be identified who should instruct and ensure high-quality execution and completion of the questionnaire diaries by the surveyed units. Representatives of public organizations or associations whose activities are related to the environment should also be involved.

Where can the funding come from?

Consider existing waste data collection processes and whether they can be reformed to support SDG 12.3. Are other public funds or international aid funding available to support these activities

The survey is possible only with financial support from an international organization in support of SDG 12.3

Actions to distribute food waste to NGOs

- *Think about it: How can you link food waste to climate change in your country? Who is the coordinator of the NDC, can you or your colleagues involve them in solving this issue? What NDC-related issues could you consider? Examples include:*
- *Prevention of the formation of food waste*
- *Improvement of refrigeration chains to prevent food losses*
- *- Processing of food waste and removal of organic waste from landfills*

The data obtained during the survey can be used to monitor climate change indicators, such as

1) the share of methane emissions from the waste sector

2) the share of recycled household waste,

3)) municipal waste collected per capita,

3) the share of food waste per capita.