Statistics for innovation and technology development

by Ms. Anar Tuleubayeva, Chief Expert, Information Technology Division of The Committee on Statistics, Ministry of National Economy, Kazakhstan
THE GLOBAL GOALS
For Sustainable Development
Implementing the SDGs in Kazakhstan

“National Mechanism for the Implementation of SDGs”

- PEOPLE
- PROSPERITY
- PLANET
- PEACE
- PARNERSHIP

✓ In July 2019, at the High Level Political Forum on Sustainable Development in New York, Kazakhstan will present the first Voluntary National Review on “Empowering People and Ensuring Integration and Equality” to achieve SDGs 4, 8, 10, 13, 16 and 17.
In the framework of the Paris Agreement, Kazakhstan accepted obligations to reduce greenhouse gas (GHG) emissions by 15% from 1990.

- Kazakhstan GHG Emissions Trading System
- Water-saving irrigation technology for 14.6% of used agricultural land of regular irrigation
- Expanded plantations to contain desertification
- Climate issues are included in school compulsory programs (implemented in 7 out of 11 classes)

### Challenges

- Greenhouse gas (GHG) emissions are increasing
- 80.2% (2018). GHG - carbon dioxide released as a result of fuel combustion in all sectors of the economy
- No climate change adaptation plan

### KEY INDICATORS

- The volume of greenhouse gas (GHG) emissions in 2018 is 353.2 million tons, which is 8.5% less than the 1990.

The Number of Indicators: **6**
GOAL 14. LIFE BELOW WATER

Ministry of Energy, Ministry of Agriculture

<table>
<thead>
<tr>
<th>Achievements</th>
<th>Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ The North Aral is preserved as a geographical and climate forming object (1) Improved water supply facilities; (2) increased species and fish catch; (3) planted saxaul forests on the dried bottom of the Aral Sea</td>
<td>▪ Drying of the South Aral Sea (including toxic mixtures, salt dust)</td>
</tr>
<tr>
<td>▪ Functional zoning atlases of the Aral and Kazaly regions Государственная заповедная зона северной (казахстанской) части Каспийского моря</td>
<td>▪ Lack of water resources, low quality of drinking water, salt-dust storms</td>
</tr>
<tr>
<td>▪ Reproduction of valuable fish: Annually 7 million young sturgeon released into the Caspian Sea (2015-2018гг.)</td>
<td>▪ Caspian Sea systematic water acidification</td>
</tr>
<tr>
<td>▪ Ban sturgeon fishing</td>
<td>▪ Loss of the Caspian tiger population, on the verge of extinction Caspian sea and sturgeon</td>
</tr>
<tr>
<td>▪ Caspian coastline water protection zone problem due to the reduction of the sea surface</td>
<td>▪ Lack of functional and territorial zoning of the reserve area of the northern part of the Caspian Sea</td>
</tr>
</tbody>
</table>

KEY INDICATORS

▪ “Fishing and Aquaculture” proportion in GDP increased from 0.05 to 0.2 in 2010-2018.
▪ Decreased poaching in fisheries: from 7480 to 4735 violations in 2010-2018.

The Number of Indicators: 10
GOAL 15. LIFE OF LAND

Ministry of Agriculture

Achievements

- Kazakhstan ecosystems diversity (60% of the territory is desert and semi-desert, 10 are mountains, 4.7 are forests)
- Ban on the export of roundwood and saxaul forests
- Increased foreign and domestic investment to expand forest cover
- Increased ecological corridors for animal migration

Challenges

- Habitat destruction as a result of industrial and transport infrastructure development projects and high consumption growth
- Migration paths of animals are not counted in the construction of infrastructure
- Desertification of the Aral and Balkhash areas
- Eroded agricultural land
- Lack of a comprehensive biodiversity conservation action plan in the country

KEY INDICATORS

- The share of specially protected natural areas increased from 8.8% to 9.6% in 2010-2018.
- The area of eroded land in the composition of agricultural land is reduced: from 30,671.7 thousand hectares to 29320.1 thousand hectares in 2010-2018.
The Role National Statistics System

– has the authorities to coordinate the activities of central and local government bodies, including the National Bank of the Republic of Kazakhstan, in the field of state statistics policy making.
Official Statistics for DRS

- Official socio-economic data:
  - Population data (From census or actual data from national databases, population numbers and characteristics, locations; Vulnerable people living in high risk natural environment);
  - Economic data (Business register databases, National accounts, Regional accounts Concentration of production)
- Environment Data: Meteorology, Climate, Natural resources, Land cover, Water and mineral resources;
- Government finances information (Expenditures, Budgets for disaster risk and relief)
- Infrastructure Maps
Example of emergency response indicators.

**Global Indicators (SDG 1, 11 and 13):**

- The Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population
- Direct economic loss attributed to disasters relative to GDP
- The Number of countries adopting and implementing national disaster risk reduction strategies in accordance with the Sendai Framework for Disaster Risk Reduction 2015-2030
- The Number of local governments that adopt and implement local DRR strategies in line with national strategies

**National indicator:**

- The Level of infrastructure provision in emergency response

Problematic issues of accounting national indicators:
- selection principles;
- quality issues and comparability of data across countries (including methodology and metadata, tools);
Current Status

• CoES collects data independently. The list of statistical indicators for DRR and Climate change policy has not been determined.
• Government agencies use various cartographic resources that are incompatible or not readable among themselves.
• There is no division in SC which specifies on natural disasters / climate change statistics;
• Low quality of data related to property valuation, as well as discrepancies in administrative data.
Future plans:

- Harmonize the national system of indicators for monitoring SDGs (with baseline and target values)
- Develop a national roadmap on SDGs statistics
- Develop a national platform for reporting on SDG indicators
- Training the staff on using applications such as ArcGIS, QGIS
- Continue cooperation initiatives on producing disaster related statistics with key stakeholders
Thank you!