Current state of the utilization of geospatial tools in land accounting in KAZAKHSTAN

Regional Inception Workshop on Integrating Statistical Geospatial Data for Land Accounts and Statistics in Central Asia

Tashkent, Uzbekistan
14-15 November 2019
Introduction

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Statistics Committee of the Ministry of National Economy

IT-projects coordination:
«E-Statistics»
Implementation of GIS in Statistics
Hardware Software
Information security
✓ Internationally agreed statistical framework for assessing the state of the environment and its links to the economy
✓ Adopted by the UN Statistical Commission as an international statistical standard
✓ Developed by an intergovernmental process
✓ Published by UN, EU, FAO, IMF, OECD, WB
National land accounting system

http://stat.gov.kz/official/industry/11/statistic/7
National land accounting system

http://stat.gov.kz/ecologic/indicator

ECOLOGICAL INDICATORS OF ENVIRONMENTAL MONITORING AND ASSESSMENT

A. Air pollution and ozone depletion
   1. Emissions of pollutants into the atmospheric air
   2. Ambient air quality in urban areas
   3. Consumption of ozone-depleting substances

B. Climate change
   4. Air temperature
   5. Atmospheric precipitation
   6. Greenhouse gas emissions

C. Water
   7. Renewable freshwater resources
   8. Freshwater abstraction
   9. Household water use per capita
   10. Water losses
   11. Reuse and recycling of freshwater
   12. Drinking water quality
   13. BOD and concentration of ammonium in rivers
   14. Nutrients in freshwater
   15. Nutrients in coastal seawaters
   16. Polluted (non-treated) wastewaters

D. Biodiversity
   17. Protected areas
   18. Forest and other wooded land
   19. Threatened and protected species
   20. Trends in the number and distribution of selected species

E. Land and soil
   21. Land uptake
Governmental and non-governmental stakeholders are contributing to land statistics

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<th>Ministry of National Economy:</th>
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<td>• Statistics Committee</td>
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<th>Ministry of Agriculture:</th>
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<td>• Land Management Committee</td>
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<td>• State Institute of Agricultural Aerophotogeodesic Surveys RSE</td>
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<td>• Water Committee</td>
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<td>• Forestry and Wildlife Committee</td>
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<td>• Geodesy and Cartography Committee</td>
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<td>• «KazGeodesy» RSE</td>
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<td>• «National Cartographic and Geodesic Fund» RSME</td>
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<td>• Aerospace committee</td>
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<td>• JSC &quot;National company&quot; Kazakhstan Garysh Sapary &quot;</td>
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<td>• JSC &quot;National Center for Space Research and Technology&quot;</td>
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Local executive bodies (Akimats): vkomap.kz, geo.eatyrau.kz, geoportal.akt.kz, etc
❖ Compilation of land balance based on data from local authorities.

❖ Coordination in determining the volume of soil, geobotanical, valuation and other surveys and surveys carried out for the purpose of inventory management.

❖ The provision of public services in the field of land relations.

❖ Monitoring and analysis by category of industrial land, specially protected natural territories and settlements, etc.

Information is available on the website: Land plots in the context of the region, soil contours, geobotanical contours. Attributive information: on land plots - cadastral number, legal relationship, purpose, area; along the soil contour - name of the soil (type, subtype); by land - name and characteristics of the land (type, subspecies, economic condition) etc.
National Spatial Data Infrastructure (mechanism, problems, needs)

- KGS GEO-portals
- GIS for Emergency services
- GIS for Local land relation authorities
- State Land Cadastre
- E-Statistics
- GIS of Local Authorities

Problems

- The heterogeneity of the used platforms (data integration problem)
- Lack of a unified national GIS of Kazakhstan
- Lack of regular map data updates
- Data privacy
centralized management of e-Statistics subsystems
https://taldau.stat.gov.kz – is a visualization of official statistical information on more than 3,000 statistical indicators.

Updating is carried out according to Statistical work plan.

Statistical information covers the period from the beginning of 2000, it is planned to fill the database with historical data from 1990.
Information Analytical System «TALDAU»: Regions

ГЕО-СТАТИСТИКА ПОКАЗАТЕЛЯ

Численность населения на начало периода, Человек, 05.2016

Список показателей

- Наименование показателя
- Численность населения на начало периода
- Средний возраст населения
- Величина прожиточного минимума
- Продовольственная корзина
- Индекс потребительских цен
- Индексы физического объема инвестиций в основной капитал
- Объем произведенной продукции, выполненных работ и оказанных услуг
- Инвестиции в строительство по направлениям использования
- Коэффициенты демографической нагрузки
- Среднемесячная номинальная заработная плата одного работника
- Объем производства промышленной продукции (товаров, услуг), в стоимостном выражении
- Объем выбросов загрязняющих веществ в атмосферу
- Валовой внутренний продукт методом производства
- Уровень безработицы
Information Analytical System «TALDAU»: Regions
Future Plans

Start of development of the Committee on Statistics’ GIS system in 2020 with the following initiative:
Thank you for attention!