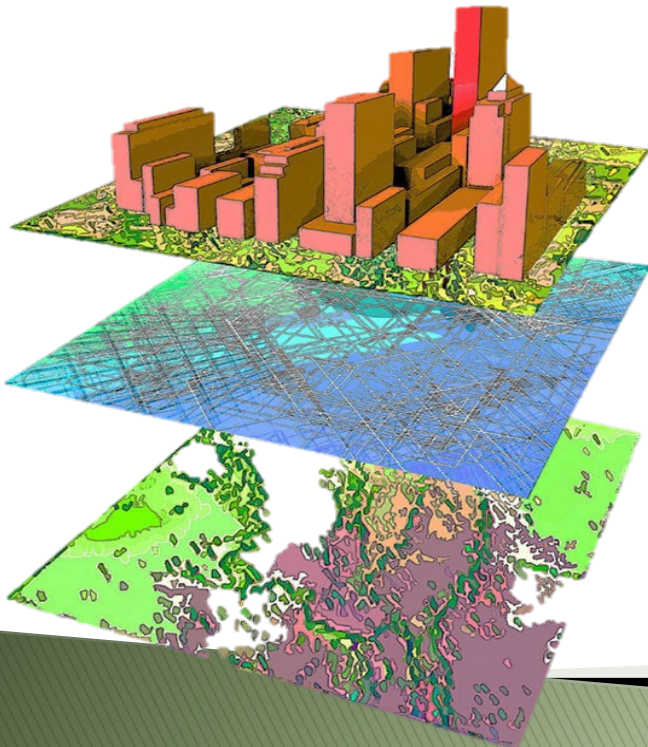




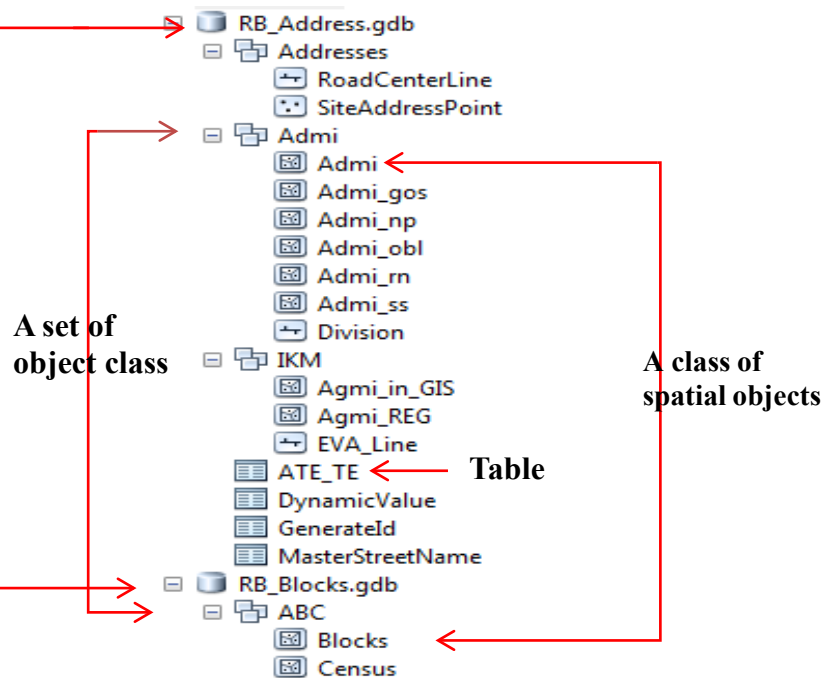
Integration of geospatial information and statistical data for the production of official statistics



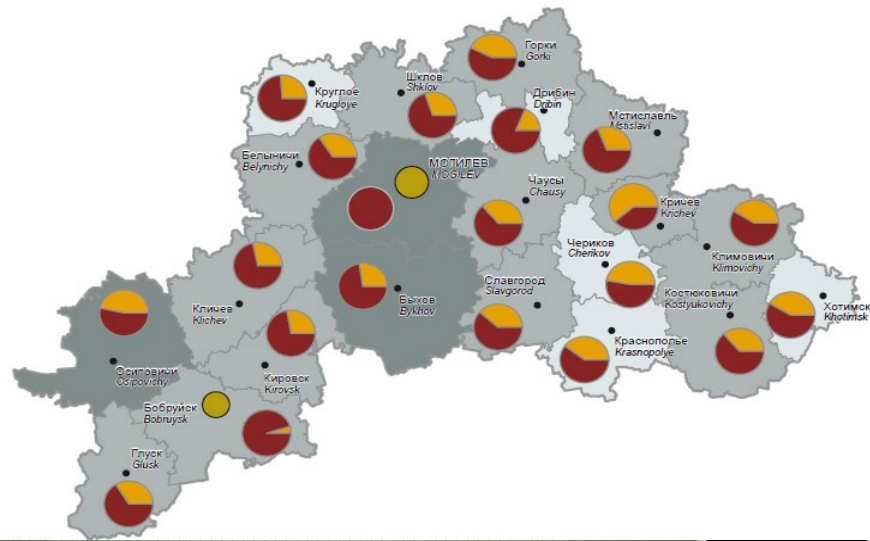
Population Census Geographic Information System (Population Census GIS) is the basis for cartographic material for the population census



Main tasks of the Population Census GIS

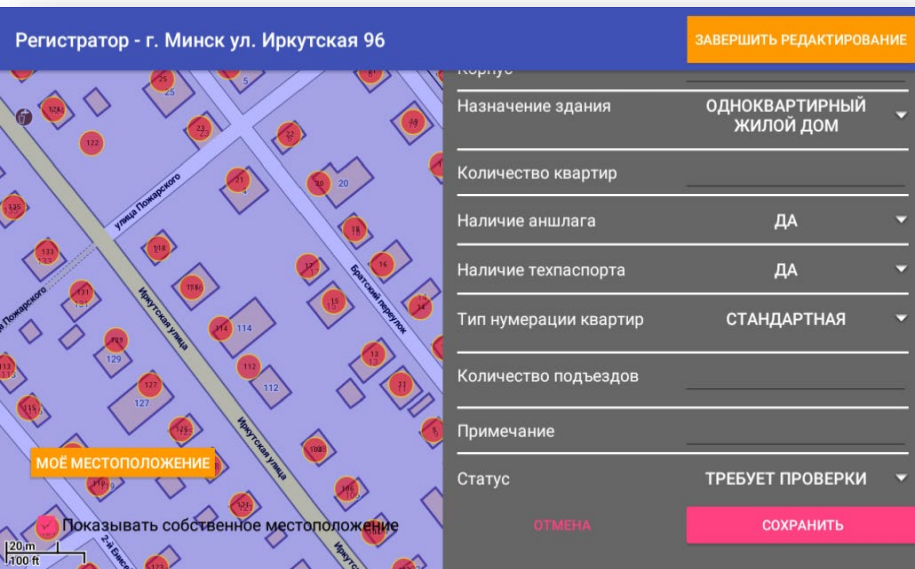


- Compilation of a database of spatial and attributive data;
- Automation of spatial analysis and preparation of cartographic representations of the final data of the population census by standard ArcGIS tools;
- Use of cartographic material in the preparation of the organizational plan of the population census;
- Use of cartographic material by enumerators during census taking.



Use of GIS technologies at the stage of preparing and taking the population census

Регистратор - г. Минск ул. Иркутская 96 ЗАВЕРШИТЬ РЕДАКТИРОВАНИЕ



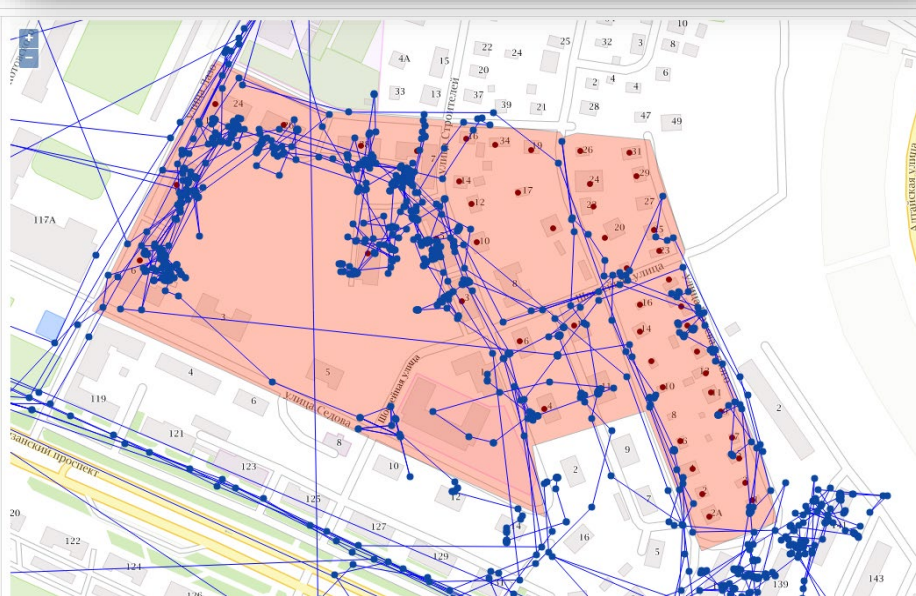
Назначение здания	ОДНОКВАРТИРНЫЙ ЖИЛОЙ ДОМ
Количество квартир	
Наличие аншлага	ДА
Наличие техпаспорта	ДА
Тип нумерации квартир	СТАНДАРТНАЯ
Количество подъездов	
Примечание	
Статус	ТРЕБУЕТ ПРОВЕРКИ

ОТМЕНА СОХРАНИТЬ

МОЁ МЕСТОПОЛОЖЕНИЕ

Показывать собственное местоположение

- Drawing up lists of housing and premises in them;
- Building census areas and enumeration districts;
- Tracking the movement of temporary census staff during the census exercise.



Source data for the Population Census GIS



НАЦИОНАЛЬНОЕ КАДАСТРОВОЕ АГЕНТСТВО

Address
register

Single
register of
ATU and TU



Population
register

Building of census areas and enumeration districts

Автоматическая группировка

Построить РУ и СУ Построить ПСУ в сельской местности Обработать средние НП Построить ПСУ в крупных НП Объединить ПСУ в крупных НП

Таблица содержания

Слои

- Adr_m
- ☒ PSU
- PSU
- RU
- SUB
- SUN
- Adn

Копировать

Удалить

Открыть таблицу атрибутов

Соединения и Связи

Приблизить к слою

Приблизить к видимому масштабу

Диапазон видимых масштабов

Использовать уровни символов

Выборка

☒ Надписать объекты

Редактировать объекты

Конвертировать надписи в аннотации

Конвертировать объекты в графику...

Конвертировать символы в представления

Данные

Сохранить как файл слоя...

Создать Пакет слоев...

Свойства...

Редактирование ППСУ

Суммировать здания Суммировать численность

Начать редактирование

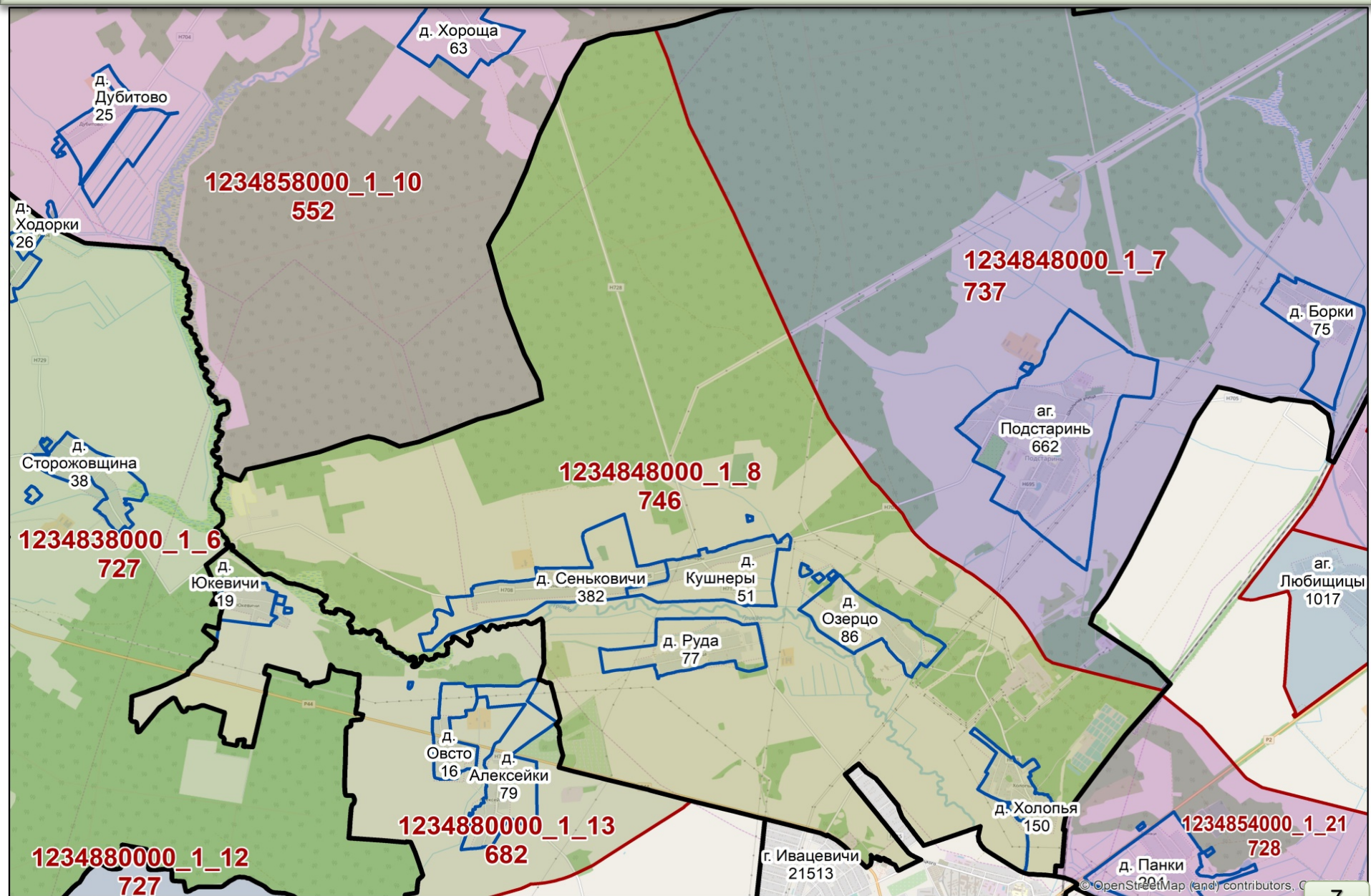
Начать редактирование

Запустить сеанс редактирования в рабочей области, содержащей этот слой. Например, если щелкнуть правой кнопкой мыши слой в базе геоданных и начать его редактирование, можно также редактировать все остальные слои в этой базе данных.

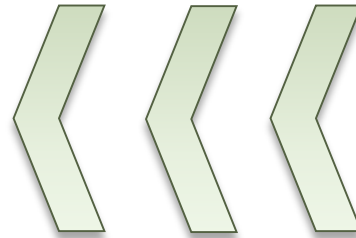
6

Districting

Enumeration districts in rural areas



Integration of geospatial and space data for the national system for monitoring SDGs

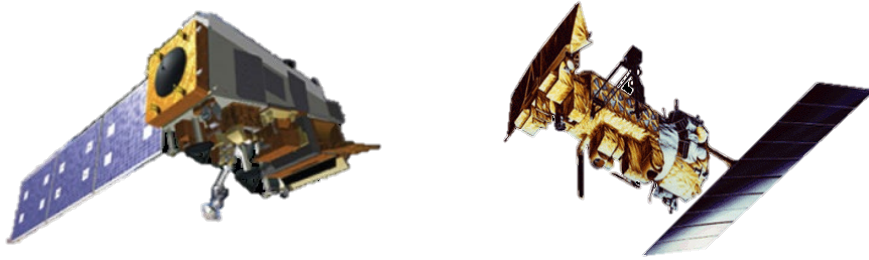


Space and GIS technologies are used to build statistical capacity for monitoring **SDGs** and filling data gaps, which allows for obtaining new types of high-quality data and enables more accurate measurement of results as well as assessment of the impact of various factors on the achievement of sustainable development.

Infrastructure

BELARUSIAN EARTH REMOTE SENSING SYSTEM

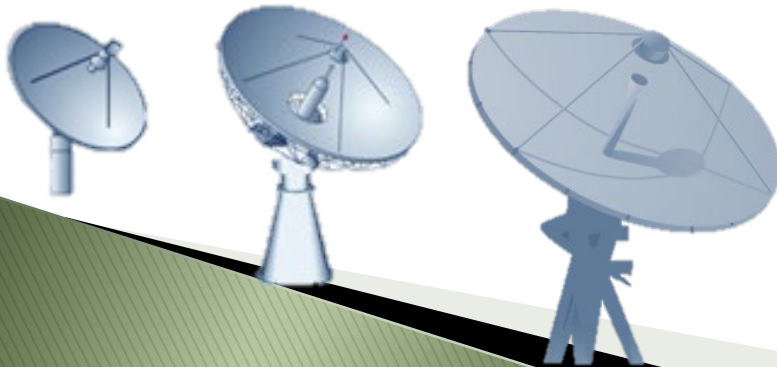
Meteorological satellites



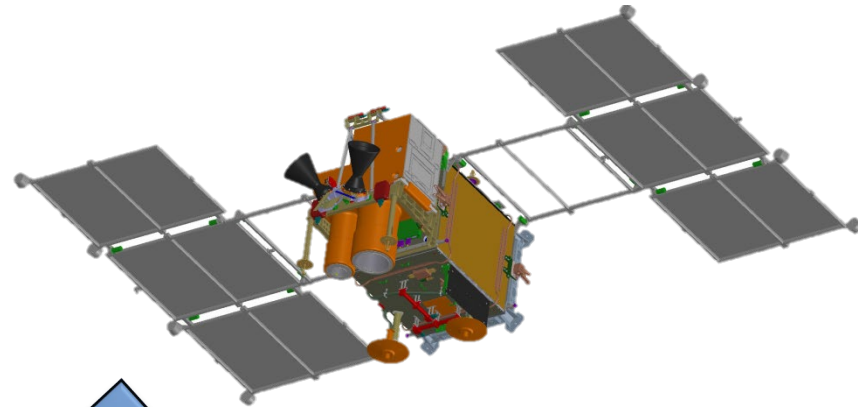
Manned and unmanned air means



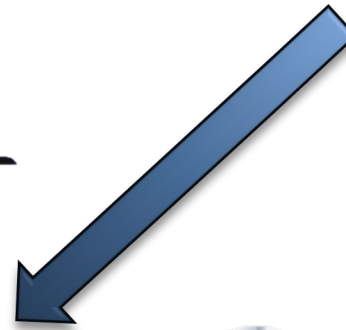
Receiving antenna system



BELARUSIAN SPACECRAFT



Ground control system



Database



Working group on the use of space technologies and GIS for monitoring progress towards SDGs

9 responsible government bodies:



National
Statistical
Committee



Ministry
of Architecture and
Construction



Ministry
of Transport



National Academy
of Sciences



State Committee
for Property



Ministry
of Agriculture

Министерство связи
и информатизации
Республики Беларусь

Ministry of
Communications



Ministry of Natural
Resources and
Environmental
Protection



Ministry
of Forestry

7 SDG indicators that are
monitored using GIS



SDG indicators that are monitored using GIS



6.6.1 Change in the extent of water-related ecosystems over time

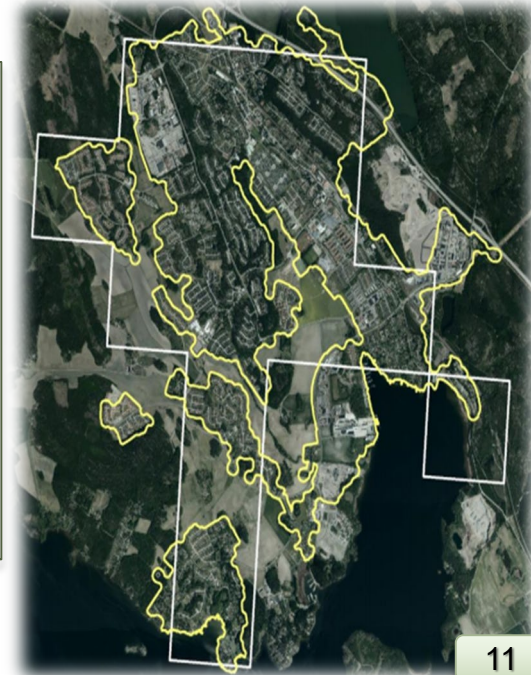
11.3.1 Ratio of building and population growth rates

11.7.1 Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities

“Report on land availability and distribution”,
departmental reporting of the State Committee for Property



Land Information System of the Republic of Belarus (LIS) is a software and hardware system providing for automation of the accumulation, processing, storage and presentation of data on the condition, distribution and use of land resources



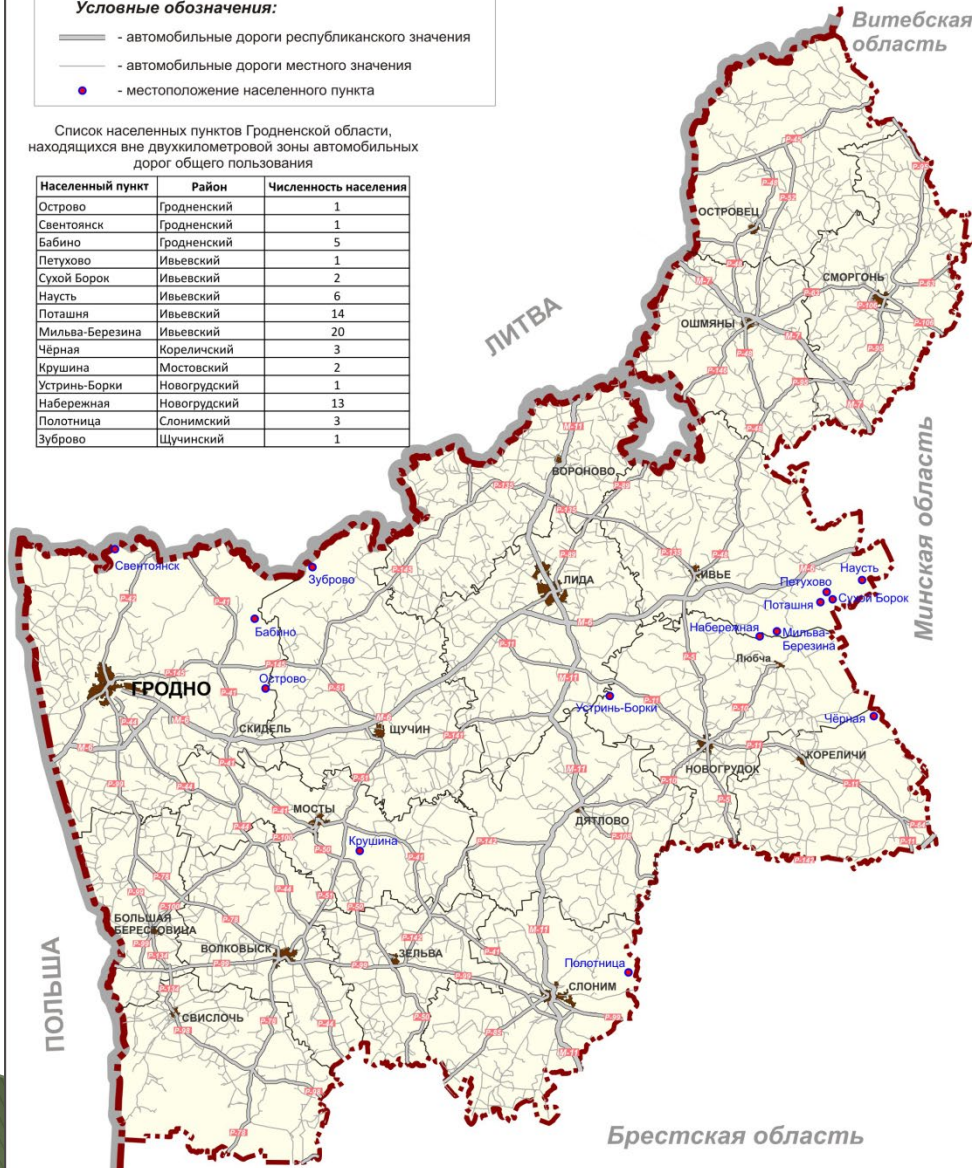
НАСЕЛЕННЫЕ ПУНКТЫ ГРОДНЕНСКОЙ ОБЛАСТИ, НАХОДЯЩИЕСЯ ВНЕ ДВУХКИЛОМЕТРОВОЙ ЗОНЫ АВТОМОБИЛЬНЫХ ДОРОГ ОБЩЕГО ПОЛЬЗОВАНИЯ

Условные обозначения:

- автомобильные дороги республиканского значения
- автомобильные дороги местного значения
- местоположение населенного пункта

Список населенных пунктов Гродненской области,
находящихся вне двухкилометровой зоны автомобильных
дорог общего пользования

Населенный пункт	Район	Численность населения
Острово	Гродненский	1
Свентоянск	Гродненский	1
Бабино	Гродненский	5
Петухово	Ивьевский	1
Сухой Борок	Ивьевский	2
Наусть	Ивьевский	6
Поташня	Ивьевский	14
Мильва-Березина	Ивьевский	20
Чёрная	Кореличский	3
Крушина	Мостовский	2
Устринь-Борки	Новогрудский	1
Набережная	Новогрудский	13
Полотница	Слонимский	3
Зуброво	Щучинский	1



9.1.1 Proportion of the rural population who live within 2 km of an all-season road

The road network is compiled with the help of geodesic basis, high resolution space images, information of motor road owners and such open cartographic sources and resources as "Public cadastral map of the Republic of Belarus", "Public land information map of Belarus", "Yandex", "Google", "OpenStreetMap" and others.

SDG indicators that are monitored using GIS

15.1.1 Forest area as a proportion of total land area

15.2.1.1 Forest coverage

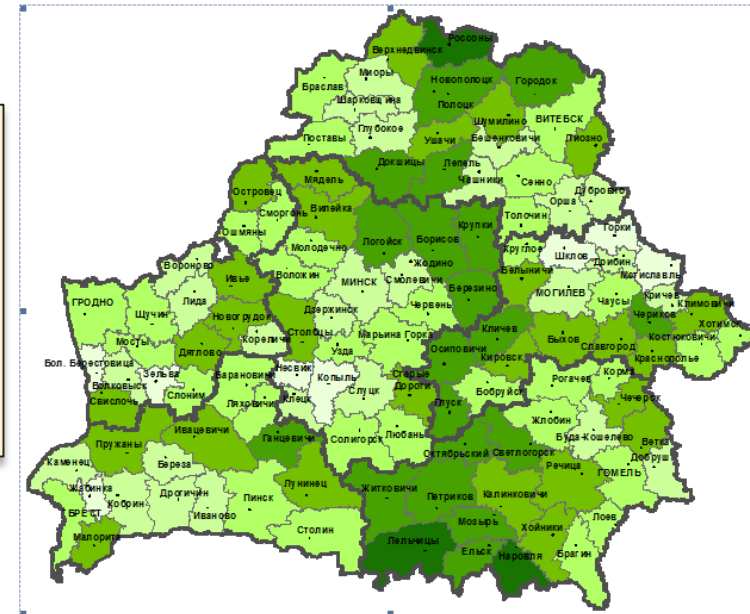
Data on the area of land covered with forest are produced on the basis of:

- information from forest management activities (including aerial surveying and/or space imaging of forest management units);
- information obtained as a result of various surveys of forest sites and other.

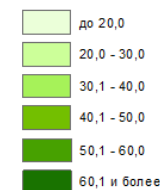
15.3.1 Proportion of land that is degraded over total land area

Data from global and/or national sources obtained through Earth remote sensing and GIS

Forest coverage by districts as at 1 January 2019



Лесистость территории, процентов:



Next steps: Establishing geostatistical portal



International technical
assistance project



Geostatistical portal



The **OBJECTIVE** is to provide users with an interactive graphical visualization of spatial data and the associated final data of the 2019 population census.

Next steps: Making wider use of GIS for monitoring and dissemination of data on SDG indicators

- Expanding the list of SDG indicators to be produced using GIS
- Finetuning the National Reporting Platform for SDG indicators to enable visualization of subnational data

Individual substances

Select All Clear

☒ Particulate fraction of PM 10
☐ Particulate fraction of PM 2.5

Cities

Select All Clear

☐ Brest
☒ Vitebsk
☒ Gomel
☐ Grodno
☐ Minsk
☒ Mogilev
☐ Novopolotsk
☒ Polotsk
☐ Zhlobin

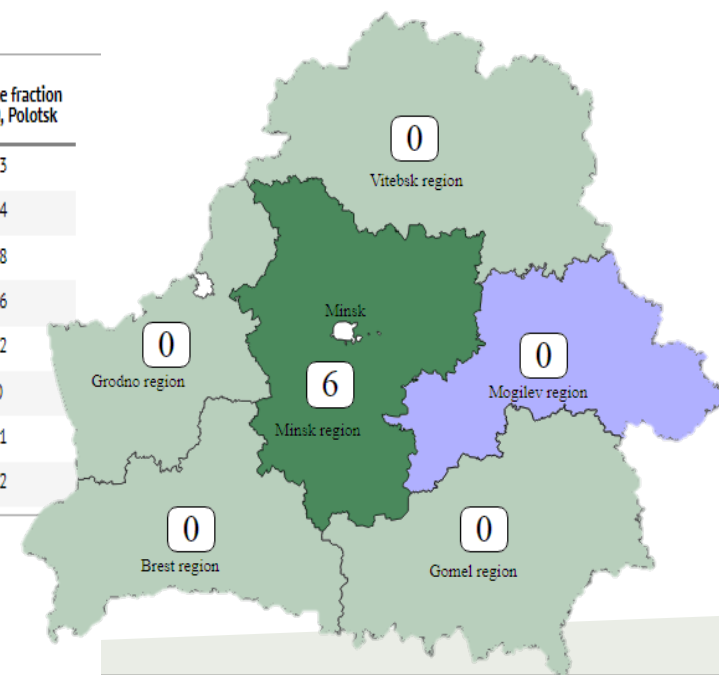
District

Select All Clear

☒ Residential area
☒ Industrial area

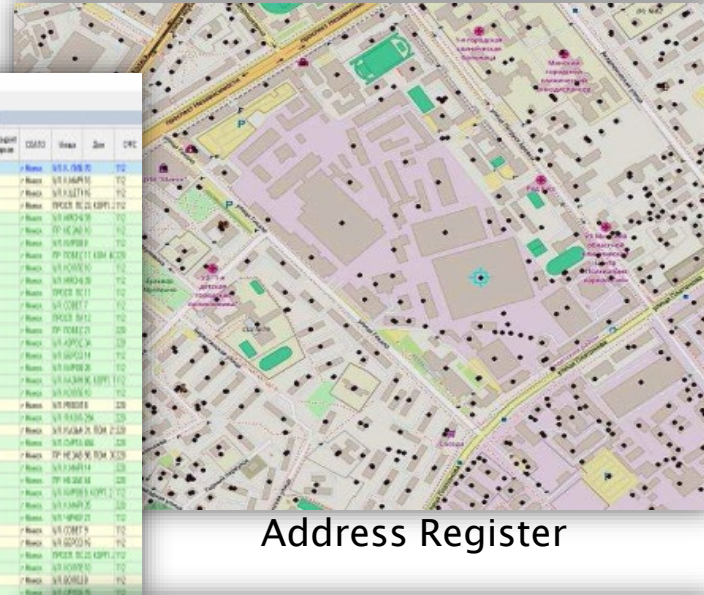
Table Diagramm Passport

Year	Particulate fraction of PM 10, Vitebsk	Particulate fraction of PM 10, Gomel	Particulate fraction of PM 10, Mogilev, Residential area	Particulate fraction of PM 10, Mogilev, Industrial area	Particulate fraction of PM 10, Polotsk
2011	20	48	19	28	23
2012	0	31	19	26	24
2013	17	28	18	23	18
2014	18	38	22	34	16
2015	16	53	14	29	12
2016	15	0	15	22	0
2017	-	32	13	22	11
2018	-	29	19	28	12

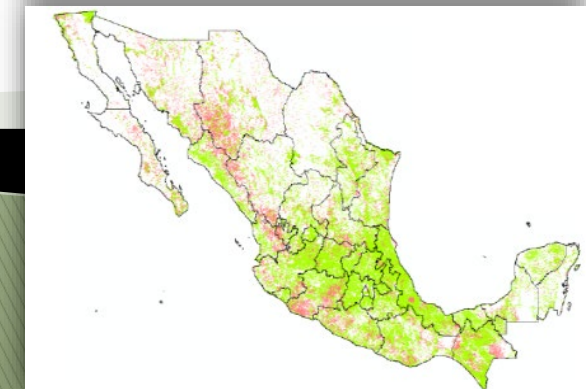
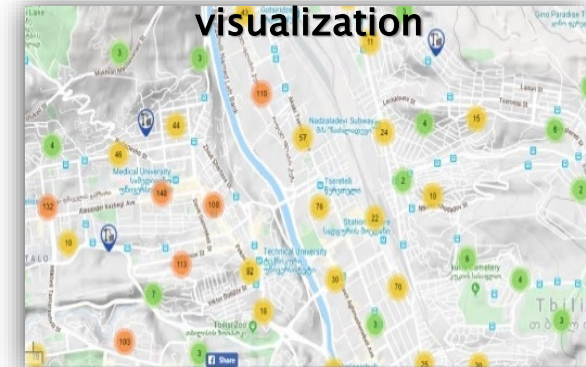


Next steps:

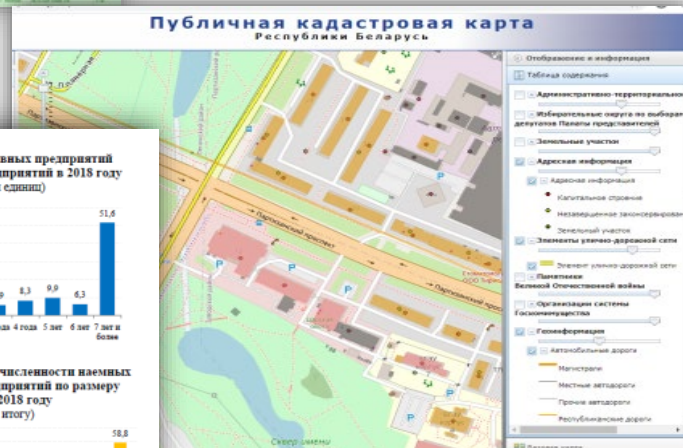
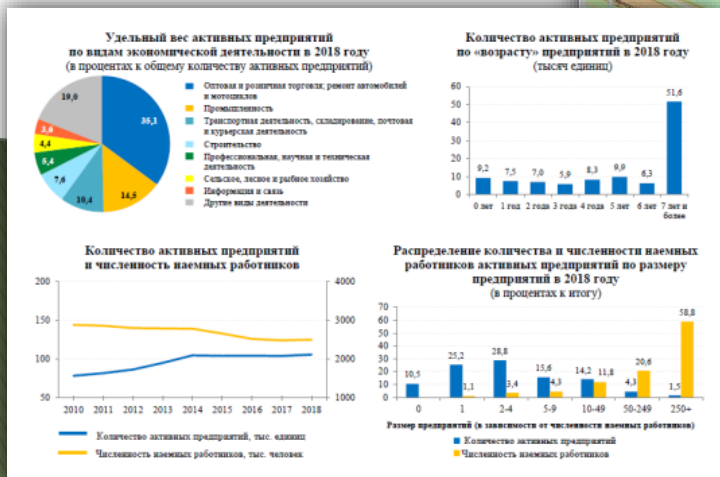
Statistical Business Register

[illegible]

Geo-based statistical data visualization



Statistical data



Geospatial data visualization tools



Thank you for your attention!