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State Register of Geographical Names of Ukraine

Abstract. The author deals with creation of the State Register of Geographical Names of Ukraine. The article consists of two parts: names of geographical features on the territory of Ukraine and names of geographical features outside Ukraine. Unified accounting forms of geographical names have been developed, the order of their filling-out was determined. Geographical names of Ukraine covered by topographic map at the scale of 1:100,000 (about 65,000 names) are entered into the database of the State Register. Works on the standardized rendering of geographical names outside Ukraine into Ukrainian are going on.

Keywords: standardization of geographical names, State Register of Geographical Names, Law of Ukraine "About Geographical Names", toponymic investigations, Toponymic guidelines for map and other editors

1. Introduction

Geographical names are an indispensable component of any spatially organized information system. Geographical names present a direct and intuitive point of access to other information sources. They facilitate the integration of digital databases which are a powerful decision-making tool for national governments and administration bodies, and aid of cooperation among local, national and international organizations. At national and local levels correct and consistent use of geographical names is of great importance for national planning strategies, economic development, protection of the environment, emergency services coordination, trade, preservation of cultural heritage, public utilities and amenities, communication systems, global media. Maps, data bases with geographical references and geoinformation

systems (GIS) using standardized geographical names are essential for the development of a country under today's economy.

Establishing (and sometimes choice) of geographical names and their correct spelling is one of the most essential targets of the cartography. Usage of authorized geographical names on maps is of great importance. Errors in geographical name spelling lead to the difference of the name of the same geographical feature on different maps, and that causes problems with their usage. In order to avoid an indefiniteness the regulation of geographical name system at the national level is necessary, that is the standardization and complying with current established spelling regulations and rules (I.S. Rudenko, N.I. Syvak, 2006).

2. Legislative, procedural and technical bases of creation of the State Register

After the Law "About Languages in Ukrainian Soviet Socialist Republic" in 1989 was adopted and the new fourth edition of Ukrainian Orthography was approved the problem of standardization of geographical names both of the territory of Ukraine and standardized spelling of geographical names outside Ukraine in Ukrainian has arisen (*Toponymic guidelines...*, 2010). In 2005 on May 31st the Law of Ukraine No. 2604-IV "About Geographical Names" was adopted by the State Council of Ukraine (Law of Ukraine..., 2005). The Law forms legal bases of regulation of relations and activities involving naming and renaming of geographical features as well standardization, national registration, usage and conservation of geographical names as a part of historical and cultural heritage of

Ukraine. The fourteen articles of the Law cover all the sphere of activity connected with geographical names.

According to the Law of Ukraine "About Geographical Names" standardization of geographical names is accomplished aiming to ordering, defining the written form and making the use of the geographical names of Ukraine uniform (authorized) taking into account historical, ethnic, language and other peculiarities (Law of Ukraine..., 2005).

The standardization of geographical names is a difficult task including legal, procedural and technical aspects. Legal bases of standardization of geographical names are formed by legal documents approved by the government law-making bodies. The scientific and procedural aspect includes development and introduction of procedural and guideline documents containing general principles and concrete rules of standardization of geographical names. The firmware includes a series of hardware and methods aimed to collect, storage, transfer, exchange and reflect information.

Nowadays, in the age of development of advanced technologies, registers (databases) of geographical names are the most convenient way of dissemination of information about official (authorized) geographical names. If the register of geographical names is available, the dissemination of official information about geographical names can be under way by means of CD or through the Internet. The Internet allows to bring available information to the great audience of users throughout the world and enables regular updating of information. The Seventh United Nation Conference of Geographical Names (New York, 1998) recognized the potential of the Internet to realize national and international geographical names standardization goals. It also recognized the importance of countries' preserving their individual toponymic heritage and promotion the international use of their nationally standardized names by all available means, including the Internet (<http://unstats.un.org/unsd/geoinfo/UNGEGN>).

The application of databases has obvious advantages. Database allows to organize a retrieval easy, sort entries according to the date, make different queries (according to specified criteria and identifiers) as in databases effective data storage is foreseen, and mini-

mize time for access and retrieval. Having retrieval mechanism users may send inquiries direct to the official database. Besides of support of retrieval functions registers of geographical names induce the solution of a number of problems in the making of cartographic products such as map scripts (map letterings), control of their transcription accuracy without additional inspection, quick information updating, etc.

The most essential task in the field of standardization of geographical names in Ukraine, prescribed by the Law of Ukraine No. 2604-IV "About Geographical Names", is a creation and maintenance of the State Register of Geographical Names of Ukraine. In compliance with the Article 9 of the Law "About Geographical Names" the Thesis on the State Register of Geographical Names was approved by the Resolution of the Cabinet of Ministers of Ukraine No. 622 of May 11, 2006. The Thesis defines the order of formation and maintenance of the State Register of Geographical Names and provides for the determination, accounting and registration of names of geographical features. The task of formation and management of the State Register of Geographical Names of Ukraine is imposed upon the central government authority in the field of topographic, geodetic and cartographic activity (since November 1, 1991 till January 25, 2013 Ukrgeodezkartographia, since January 25, 2013 till September 10, 2014 the State Agency of Land Resources of Ukraine of the Ministry of Agrarian Policy and Food of Ukraine, since September 10, 2014 the State Service in the Issues of Geodesy, Cartography and Cadastre). In 2009 Code of established practice "Structure and Content of the State Register of Geographical Names of Ukraine" was developed by the Department of Standardization of Geographical Names of the State Scientific and Production Enterprise (SSPE) "Kartographia". The Code entails strategies and procedures of the standardization of geographical names, determines main principles of the formation of the database, standardization, accounting, state registration of geographical names and entails developed registration-and-accounting forms according to which geographical names are recorded and registered. In 2011 in the Department of Standardization of Geographical Names of the SSPE "Kartographia" technical project for the performance of works on the subject "Formation and Main-

tenance of State Register of Geographical Names of Ukraine” was developed where the works concerning the formation and maintenance of the State Register were described in stages (R.I. Sossa et al., 2010; R.I. Sossa et al., 2011).

The State Register of Geographical Names of Ukraine (hereinafter the State Register) is aimed at making the use of names of geographical features in legislative and regulatory acts, in business writings, on maps, in print publications and mass media uniform and also at preservation of names of geographical features as a part of historical and cultural heritage of Ukraine.

The State Register is intended to meet the demands of government authorities, local government authorities, organizations, mass media and citizens for official information about geographical names. Effectiveness of development of geoinformation technologies in cartography is also direct connected with the availability of accurate information about geographical names, its completeness and up-to-dateness. Data of the State Register will be used by development and introduction of the national infrastructure of geospatial data in Ukraine, will be a component part of it.

The State Register is formed and maintained as electronic base of standardized geographical names with using automated data retrieval system. Electronic data base is regularly updated on the base of official information sources dealing with names of geographical features. State registration of geographical names is performed according to the form approved by the Ministry of Agrarian Policy and Food of Ukraine when adding the standardized geographical name to the State Register.

Automated data retrieval system realizes such functions:

- preparation of input information and entering it into the data base;
- registration of standardized geographical names (assignment of registration numbers to names of geographical features on the territory of Ukraine);
- recording of standardized geographical names (assignment of recording numbers to names of geographical features outside Ukraine);
- storage of information in the data base;
- maintenance of data base (adding new geographical names and information about

them to the data base, correction or updating of entered information);

- processing of information;
- retrieval and output of basic data for user requests.

Automated system foresees that to the data base of the State Register of Geographical Names the information will be entered according to requirements of the Code of established practice “Structure and Content of the State Register of Geographical Names of Ukraine”, what entails correspondent information indices which are divided into main and optional ones. As main indices serves information necessary for performing recording, state registration and retrieval of names of geographical features.

The hardware package of the system includes a server as a control program nucleus of the database, network equipment, working stations of operators, working station of system administrator (databases with reservation device), network printer accessible to all the working stations (fig. 1).

3. Phases of creation of the State Register

The language of the database of the State Register is Ukrainian. The State Register is maintained as a systematized list of standardized names of geographical features with extended information about them.

The phases of the formation of the State Register are the following:

- collection of information about geographical names from different sources (official, reference, cartographic ones);
- systematization of collected information;
- standardization of geographical names;
- filling out unified registration-and-accounting forms using official standardized geographical names;
- assignment of registration numbers to the names of geographical features on the territory of Ukraine and accounting numbers to names of geographical features outside of Ukraine;
- number of records in the database.

The main task of studies at the initial stage of creation of the State Register is collection, study and evaluation of all materials dealing with geographical names. Information about names to be standardized is gathered according to documentary sources and field works.

Field investigation is the ideal method for gathering names in local use. Field investigation of geographical names involves the collection of toponymic information through interviews

- toponymic history of the geographical entity involved;
- languages involved and their written forms;
- options with regard to standardization;

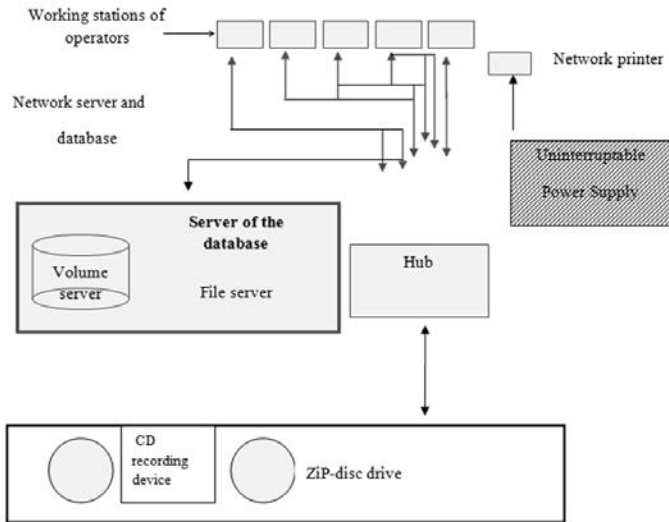


Fig. 1. Structural scheme of the hardware of automated data retrieval system

with local citizens. But the field work is an expensive and time-consuming process. For this reason field investigation adds the process of collection of geographical names (and sometimes it is completely replaced) by collection of information about geographical names from official sources, reference materials, dictionaries, geographical cards, manuscripts, reports, books on national or local geography.

The collected names are investigated and it is determined the following:

- completeness of name collection;
- occurrence of differences in names of the same geographical features in different sources;
- accuracy of spelling of Ukrainian geographical names, their complying with official sources and established rules of Ukrainian orthography; concerning the geographical names outside the Ukraine their complying with regulations of instructions on rendering of geographical names outside the Ukraine into Ukrainian.

The investigation of geographical names provides for detailed study and evaluation of each single geographical name, in particularly:

- sources of all variant names and spellings;
- special ethnic, cultural and political interests;
- local usage of the name and local preferences;
- degree and reliability of name usage.

Information collected from different sources may have some inaccuracies, errors, differences, not comply with current regulations and as a result considers processing. Processing of gathered data about geographical names is a key process of their standardization. At this stage of work the gathered data are systemized and analyzed, the standardized name is established and registered in the database of the State Register (I.L. Drohushevska et al., 2014).

4. The methods of the toponymic investigations

The procedure of standardization of geographical names provides for toponymic investigations and use of different methods of analysis and synthesis. Geographical name can be considered from different points of view

such as belonging to geographical feature (mountain, river, town), time of its emergence, belonging to a certain language, content and etymology, morphology, distribution area, scientific substantiation of its spelling by rendering into another language and writing in native language, etc. All these questions can not be solved by means of only one method. The most frequently four main methods were used, they are geographical, cartographic, historical and linguistic ones. Geographical method enables to study semantic peculiarities of geographical names, content load in people's geographical terminology forming geographical names, to discover their links to natural, social and economic phenomena and features. Cartographic method of analysis is based on use of cartographic materials to describe toponyms, their location, dependence on social and natural circumstances. Geographical maps are the essential source of toponymic stratigraphy. Use of maps published in different times allows to follow up the dynamics of toponym changes. Historical analysis enables to research the origin of a toponym, its evolution and transformation. Linguistic method is an essential investigation tool concerning etymology of geographical names and their morphology, as names have to meet language regulations and comply with grammar rules.

5. Structure of the State Register

The State Register consists of two parts such as names of geographical features on the territory of Ukraine and names of geographical features outside Ukraine together with names of geographical features of the Earth which are out of jurisdiction of any country. Information about established geographical names is entered to the State Register to perform their registration and record-keeping in accordance with decisions of the State Council of Ukraine, the Cabinet of Ministers of Ukraine, official documents of state and local authorities, databases, reference materials and cartographic sources (I.L. Drohushevska et al., 2014).

Databases of the State Register of Geographical Names of Ukraine and outside of Ukraine contain such structural subdivisions: names of localities and administrative-and-territorial entities, names of physiographic

features, names of socioeconomic features, names of nature reserve features. For the territory of Ukraine the database of adjective derived from geographical names is being formed as deriving adjectives from geographical names is not yet standardized in Ukrainian (I.L. Drohushevska et al., 2014).

The basic cartographic material for forming the State Register of Geographical Names of the territory of Ukraine is a topographic map of Ukraine at the scale of 1:100,000.

Database of geographical names outside Ukraine is being formed on the base of electronic Gazetteer of geographical names of the world (2006), as well as maps of the Atlas of the world at the scales of 1:3,000,000, 1:3,300,000, 1:8,000,000, 1:18,000,000 (SSPE "Kartographia", 2005).

Registration and record-keeping of geographical names occur by entering standardized geographical name to the State Register of Geographical Names.

To names of geographical features on the territory of Ukraine registration numbers and to names of geographical names outside Ukraine recording numbers are assigned.

By renaming of geographical features the information about the new name of the geographical feature is entered to the State Register of Geographical Names under the new number.

Administrative-and-territorial units, apart from registration number, have code of the State Classifier of Units of Administrative and Territorial Division of Ukraine (KOATU code), which uniquely identifies the unit and is used for synchronization of the State Register of Geographical Names in the part of administrative-and-territorial units with KOATU code.

Registration number is formed automatically for each unit after saving of information in the database.

For the purpose of collection and record-keeping of information about names of geographical features unified accounting forms were developed, the order of their filling-out and entering the information in electronic way using special program complex was determined (I.L. Drohushevska et al., 2014).

Registration-and-accounting form of the geographical name of Ukraine entails such fields to be filled out: standardized name; source of establishing standardized name; date of es-

establishing standardized name; standardized name in Latin script; the kind of geographical entity named; signpost to the existence, source of establishing the kind of geographical entity; date of establishing the kind of geographical entity; administrative status; administrative-and-territorial fixing of the entity (Autonomous Republic of Crimea, oblast, rayon, miska rada (city or town council), silska or selyshchna rada (village or settlement council), source of information establishing, date); KOATU code (of the locality); geographical values of the entity; sheet nomenclature of topographic map at the scale of 1:100,000; fixing to the other geographical features; name variants; name in the language of national minority, the language, the source of information establishing; historical name; the source of information establishing; renaming of a geographical feature; the source of information establishing; date of renaming; change of locality category; change of locality status; deregistration; notes (fig. 2).

national standardized spelling of the name of geographical entity; source of establishing national standardized name; country (location); language of the original name of the geographical entity; official language or official languages of the country; source of information establishing; kind of geographical entity; signpost to the existence of the geographical entity; source of establishing a kind of the geographical entity; date of establishing the kind; administrative status; administrative-and-territorial fixing of the entity (name of administrative unit of the 1st administrative level, and if the information is available, of the 2nd administrative level (republic, area, region, autonomous area, province, canton, prefecture etc.), where the geographical entity is located, source of information establishing and dates); geographical values (longitude and latitude); cartographic materials; fixing to the other geographical features; name variants; renaming of a geographical feature;

1. Основні інформації (адміністративно-територіальної одиниці)

Регістраційний номер	Порядковий номер	Дата реєстрації	A-15403	15403	17.01.2012 17:57:40
Уніфікована назва	Угерсько				
Джерело встановлення уніфікованої назви	Постанова Президиуму Верховної Ради України №3260-XII 11 червня 1993 року				
Дата встановлення уніфікованої назви	11.06.1993				
Уніфікована назва латиницею	Uherisko				
Вид географічного об'єкту	Тип поселення	Означення місцевості	населений пункт	село	юнус
Джерело встановлення типу	Додаток "Україна: Адміністративно-територіальний устрій (станом на 1 січня 2012 р.)" 2012				
Дата встановлення типу	Адміністративний статус		01.01.2012 центр сільської ради		

Адміністративно-територіальна одиниця географічного об'єкта

Адміністративно-територіальна оди...	Джерело встановлення інф...	Дата	Львівська обл.	Додаток "Україна: Адміністративно-територіальний устрій (станом на 1 січня 2012 р.)" 2012
Район	Джерело встановлення інфор...	Дата	р-н Стрийський	Додаток "Україна: Адміністративно-територіальний устрій (станом на 1 січня 2012 р.)" 2012
Міська, сільська/селищна рада	Джерело встановлення інфор...	Дата	с/рада Угерська	Додаток "Україна: Адміністративно-територіальний устрій (станом на 1 січня 2012 р.)" 2012
Код КОАТУУ місц.	Примітка		4625306401	

3. Географічні координати

N53	Широта (°)	Широта (°)	Широта (°)	N	49°	18'	06,0336
E49	Довгота (°)	Довгота (°)	Довгота (°)	E	20°	54'	34,596
Масштаб карти	M34-108						
Примітка до картосполучення	Розташування на південній березі р.Стрий						

4. Додаткова інформація

Варіанти назви / Джерело встановлення інформації / Дата

Ново введене національне написання / Мова / Джерело встановлення інформації / Дата

Історична назва / Джерело встановлення інформації / Дата

Переименование географічного об'єкта / Джерело встановлення інформації / Дата пер...

Варіанти типу поселення / Джерело встановлення інформації / Дата

Зміна статусу (категорії) / Джерело встановлення інформації / Дата зміни статусу

Зняття з обліку / Джерело встановлення інфор... / Дата зняття з обліку

Примітки

1. ВВРУ №3260, 1993, с. 752.
2. Додаток "Адміністративно-територіальний устрій України", 2005.

Виконавець: Рогожинська Ольга Володимирівна

Дата виконання: 20.05.2012

Fig. 2. Registration-and-accounting form of the geographical name of Ukraine

Accounting form of the geographical name outside Ukraine entails such fields to be filled up: standardized name of a geographical entity named in Ukrainian; source of establishing the standardized geographical name in Ukrainian;

the source of information establishing; date of renaming; historical name; source of information establishing; variants of the kind of the geographical entity, source of information establishing, date; notes (fig. 3).

6. Standardization, registration and accounting of Ukrainian geographical names

Ukrainian geographical names are rendered according to the pronunciation in compliance with norms and rules of the Ukrainian orthography. Main principles and rules of writing of Ukrainian geographical names in Ukrainian (official) language and Ukrainian Romanization System in compliance with norms and rules of the Ukrainian orthography are collected and generalized in “Toponymic guidelines (for map and other editors)”, which was developed in the Department of Standardization of Geographical Names of the SSPE “Kartographia” in 2010 (*Toponymic guidelines...*, 2010). Ukrainian geographical names are rendered into Latin script by means of romanization of the standardized Ukrainian geographical names according to the “Table of Romanization of

Names of the SSPE “Kartographia” following normative and methodological documents were developed:

1. Instruction on how to fill in registration-and-accounting forms of names of localities and administrative-and-territorial division units of Ukraine of the State Register of Geographical Names.

2. Instruction on how to fill in registration-and-accounting forms of names of hydrographic features of Ukraine of the State Register of Geographical Names.

3. Instruction on how to fill in registration-and-accounting forms of names of orographic features of Ukraine of the State Register of Geographical Names.

4. Instruction on how to fill in registration-and-accounting forms of names of landscape units of Ukraine of the State Register of Geographical Names.

5. Instruction on how to fill in registration-and-accounting forms of names of nature re-

The screenshot shows a web application interface for entering geographical name data. The form is organized into several sections:

- 1. Основна інформація (Basic Information):** Includes fields for 'Обласний номер' (Regional number), 'Порядковий номер' (Order number), 'Дата реєстрації' (Registration date), 'А-68', 'Адреса' (Address), 'Джерело встановлення упорядкованої назви українською мовою' (Source of standardized name in Ukrainian), 'Національне упорядковане написання назви географічного об'єкта' (National standardized spelling of the geographical object name), 'Країна (місцезнаходження)' (Country (location)), 'Мова оригінальної назви' (Original name language), 'Вид географічного об'єкта' (Type of geographical object), and 'Дата встановлення виду' (Date of type establishment).
- Адміністративно-територіальна одиниця географічного об'єкта (Administrative-territorial unit of the geographical object):** Fields for 'Адміністративна одиниця першо...' (Administrative unit first...), 'Адміністративна одиниця друго...' (Administrative unit second...).
- Географічні координати (Geographical coordinates):** Fields for 'NS' (North-South), 'EW' (East-West), and 'Elev' (Elevation).
- 2. Додаткова інформація (Additional information):** Fields for 'Варіанти назви' (Name variants), 'Історична назва' (Historical name), 'Періодизація географічного об'єкта' (Periodization of the geographical object), and 'Варіанти виду географічного об'єкта' (Object type variants).
- Виконавець (Executor):** Fields for 'Виконавець' (Executor), 'Перевірка' (Check), and 'Доповнення імена Писаренко' (Name additions).

Fig. 3. Accounting form of the geographical name outside Ukraine

Ukrainian Alphabet”, approved by the Resolution of the Cabinet of Ministers of Ukraine of January 27, 2010 No. 55 “On regulation of Romanization of the Ukrainian alphabet».

While working on the State Register in the Department of Standardization of Geographical

serve features of Ukraine of the State Register of Geographical Names.

6. Instruction on how to fill in registration-and-accounting forms of names of railway features of Ukraine of the State Register of Geographical Names.

Names of localities (villages, settlements, towns or cities) and administrative and territorial entities (village, settlement, town and city councils, rayons, city districts, oblasts) of the territory of Ukraine are given according to the official data published in official legislation bulletin "Gazette of the Verkhovna Rada of Ukraine" ("Vidomosti Verkhovnoi Rady Ukrainy") and advanced reference-book "Administrative-and-territorial arrangement of Ukraine" ("Administrativno-terytorialnyi ustrii Ukrainy"). The essential particular feature of the State Register is not only collection of the data about the current names of localities but also their monitoring (alliance, separation, change of the category, renaming, deregistration, etc). Investigations of dynamics of names of localities and administrative-and-territorial entities are carried out by use of reference-books of administrative-and-territorial arrangement of Ukraine of different publication years which are regularly updated (from 1947 to 2012). A very important moment is the collection and preservation of names which are of historical importance. In the database of the State Register names are presented which are out of use (mainly names of localities and railway entities). They are names of features which have been renamed or of features which do not exist now (I.L. Drohushevska et al., 2014).

Names of physiographic features on the territory of Ukraine (sees, bays, straits, islands, peninsulas, capes, rivers, lakes, ponds, marshes, mountains, plains, highlands, hills, ridges, mountain ranges etc.) are revised by different sources, among them there are "Dictionary of hydronyms of Ukraine" („Slovnyk hidronimiv Ukrainy", 1979), "Geographical encyclopedia of Ukraine" („Heohrafichna entsyklopediia Ukrainy") in three volumes (1989–1993), "Dictionary of microhydronyms of Ukraine" („Slovnyk microhidronimiv Ukrainy", 2004), "Hydronyms of the Upper Dnister Basin" („Hidronimiia Verkhnoho Dnistra", 2007), "Hydronyms of the Middle Dnister Basin" („Hidronimiia Srednoho Dnistra", 2009), „Hydronyms of the Lower Dnister Basin" („Hidronimiia Nyzhnoho Dnistra", 2013), "Hydronyms of Ivano-Frankivsk Region" („Hidronimiia Ivano-Frankivshchyny", 2010), "Names of Mountains of Ivano-Frankivsk Region" („Nazvy hir Ivano-Frankivshchyny", 2005), "Toponyms of Galician Huzul Region" („Toponimiia Halytskoi Hutsulshchyny", 2011), topographical and geo-

graphical maps of Ukraine oblasts at different scales, etc. (I.L. Drohushevska et al., 2014).

Names of nature reserve features on the territory of Ukraine (nature parks, nature reserves, nature-sanctuaries, natural landmarks and touristic objects of the state importance) are given according to the information of the State Service of Nature Reserve Management with involvement of dictionaries, encyclopedias, cartographic sources.

Names of social and economic features of Ukraine include names of railway stations, halt platforms, platforms, airports, airdromes, sea and river ports, quays. Names of railway stations and halt platforms are standardized according to the Tariff guide No. 4, names of airports, airdromes according to the information presented by State Department of Air Transport (Ukraviatrans), names of sea and river ports, quays according to the information of the State Enterprise of Waterways (Ukrvodshliakh).

Adjectives derived from toponyms are standardized according to the "Dictionary of geographical names" by V.O. Horpynych (2001), reference-book of administrative-and-territorial arrangement of Ukraine which is regularly updated, and three-volume "Geographical encyclopedia of Ukraine" (1989–1993).

7. Standardization, registration and accounting of geographical names outside Ukraine

Geographical names outside Ukraine while forming the State Register are rendered according to the correspondent Instructions (Codes of established practice) on Rendering of geographical names and generic terms outside Ukraine into Ukrainian.

In the course of the years of independence of Ukraine 28 such Instructions were developed. Instructions on rendering of geographical names from English, German, Spanish, Italian, French into Ukrainian were developed in 1993–1994. In 1995–1996 Instructions on rendering of geographical names and generic terms from Poland, Czech Republic, Slovakia, Romania and Moldova, Lithuania, Sweden, Hungary (the 1st variant) into Ukrainian were developed, a little later those of Belarus, Russia, the former Republics of Yugoslavia (Serbia and Montenegro, Croatia, Bosna and Hercegovina), Bulgaria, Hungary (the 2nd variant).

In 2006–2007 pp. Instructions on rendering of geographical names and generic terms of Finland, Denmark, Norway, Greece, Portugal and Brazil into Ukrainian were developed, in 2008–2009 those of Belgium, Netherlands, Turkey, Estonia, Slovenia, Macedonia, Albania. Later basing on these Instructions correspondent Codes of established practice were developed. In these Codes the phonetic-and-graphical principle of rendering of geographical names outside Ukraine into Ukrainian has been used. In development of Instructions recommendations of the United Nations Group of Experts on Geographical Names to render the original pronunciation of the foreign name as much as possible have been taken into account (I.S. Rudenko et al., 2014).

For rendering of geographical names outside Ukraine gazetteers of geographical names of foreign countries, geographical dictionaries, atlases, maps and other cartographic reference materials of foreign countries have been involved.

8. Conclusions and research perspectives

At the moment geographical names of the territory of Ukraine have been standardized and entered into the database of the State Register. The database of geographical names of Ukraine entails about 65,000 entities. Now the works on the standardized rendering of geo-

graphical names outside Ukraine into Ukrainian are going on.

In its Resolution VII/9, the Seventh United Nations Conference (New York, 1998) recommended that country toponymic websites be established and used with a purpose of information on the standardization of geographical names, nationally standardized names and facilitation of the international exchange of toponymic data (<http://unstats.un.org/unsd/geoinfo/UNGEGN>). Taking into account recommendations of UNGEGN going forward the works on creation of Geoportal are planned where the State Register supplemented by map will be placed. Geoportal functionality will be determined by:

- search servers; the software of the automated system will provide the possibility of processing information and obtaining results according to defined prestored queries. Information will be presented to users in different extents according to access levels;
- visualization servers; they will enable data exploration, navigation, graphical representation of data of the State Register on a map, etc.
- servers to download the information, they will allow copying of the obtained information;
- servers of data transformation, they will enable conversion of obtained information into other systems, for example the function of export to Microsoft Excel tables (I.L. Drohushevska et al., 2014).

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Summary

The author presents main principles and procedures of database formation for the State Register of Geographical Names of Ukraine, realization of standardization, records and official registration of geographical names. At local, national and international levels correct and consistent use of geographical names is very important. Maps, data bases with geographical references and GIS using standardized geographical names are essential for the development of a country under today's economy. Establishing of geographical names and their correct spelling is one of the most essential targets of the cartography.

In 2005 on May 31st the Law of Ukraine No. 2604-IV "About Geographical Names" was adopted by the State Council of Ukraine. According to the Law of Ukraine "About Geographical Names" standardization of geographical names is accomplished aiming to ordering, defining the written form and making the use of the geographical names of Ukraine uniform (authorized) taking into account historical, ethnic, language and other peculiarities. In compliance with the Article 9 of the Law "About Geographical Names" the Thesis on the State Register of Geographical Names was approved by the Resolution of the Cabinet of Ministers of Ukraine No. 622 of May 11, 2006.

The State Register is intended to meet the demands of government authorities, local government authorities, organizations, mass media and citizens for official information about geographical names. The State Register is formed and maintained as electronic base of standardized geographical names with using automated data retrieval system. Electronic data base is regularly updated on the base of official information sources dealing with names of geographical features. State registration of geographical names is performed according to the form approved by the geographical names national authority, when adding the standardized geographical name to the State Register. The State Register is maintained as a systematized list of standardized names of geographical features with extended information about them.

The State Register consists of two parts such as

names of geographical features on the territory of Ukraine and names of geographical features outside Ukraine together with names of geographical features of the Earth which are out of jurisdiction of any country. Information about established geographical names is entered to the State Register to perform their registration and record-keeping in accordance with decisions of the State Council of Ukraine, the Cabinet of Ministers of Ukraine, official documents of state and local authorities, databases, reference materials and cartographic sources.

Databases of the State Register of Geographical Names of Ukraine and outside Ukraine contain such structural subdivisions: names of localities and administrative-and-territorial entities, names of physiographic features, names of socioeconomic features, names of nature reserve features. For the territory of Ukraine the database of adjective derived from geographical names is being formed as deriving adjectives from geographical names is not yet standardized in Ukrainian.

Ukrainian geographical names are rendered according to the pronunciation in compliance with norms and rules of the Ukrainian orthography. Geographical names outside Ukraine while forming the State Register are rendered according to the correspondent Instructions (Codes of established practice) on Rendering of geographical names and generic terms outside Ukraine into Ukrainian.

The procedure of standardization of geographical names provides for toponymic investigations and use of different methods of analysis and synthesis. The most frequently four main methods were used, they are geographical, cartographic, historical and linguistic ones.

At the moment geographical names of the territory of Ukraine have been standardized and entered into the database of the State Register. The database of geographical names of Ukraine entails about 65,000 entities. Now the works on the standardized rendering of geographical names outside Ukraine into Ukrainian are going on.

Państwowy Rejestr Nazw Geograficznych Ukrainy

Streszczenie

Słowa kluczowe: standaryzacja nazw geograficznych, ustawa „O nazwach geograficznych”, badania toponimiczne, „Przewodnik toponimiczny”, Grupa Ekspertów ONZ ds. Nazw Geograficznych

Autorka przedstawia główne zasady i procedury opracowania bazy danych Państwowego Rejestru Nazw Geograficznych Ukrainy, zasady standaryzacji, sposoby zapisu i rejestracji nazw. Poprawne i konsekwentne używanie nazw geograficznych jest niezwykle ważne na poziomie lokalnym, regionalnym i na poziomie krajowym. Mapy, bazy danych zawierające odniesienia geograficzne oraz systemy informacji geograficznej zawierające zestandaryzowane nazwy geograficzne są niezbędne dla dzisiejszego rozwoju gospodarczego kraju. Ustanowienie standaryzowanych nazw geograficznych oraz ich poprawnej pisowni jest jednym z zadań kartografii.

Rada Najwyższa Ukrainy uchwaliła 31 maja 2005 roku ustawę Nr 2604-IV „O nazwach geograficznych”. Celem ustawy jest uporządkowanie i ujednoczenie form nazw geograficznych biorąc pod uwagę elementy historyczne, etniczne, językowe i inne. Zgodnie z artykułem dziewiątym ustawy „O nazwach geograficznych” Gabinet Ministrów Ukrainy rozporządzeniem nr 622 z dnia 11 maja 2006 roku powołał Państwowy Rejestr Nazw Geograficznych.

Państwowy Rejestr ma za zadanie sprostanie za potrzebą władz państwowych i miejscowych organizacji, środków masowego przekazu oraz obywateli na oficjalną informację dotyczącą nazw geograficznych. Państwowy Rejestr został utworzony jako baza elektroniczna zestandaryzowanych nazw geograficznych z systemem automatycznego wyszukiwania danych. Rejestr jest aktualizowany na pod-

stawie oficjalnych danych zaakceptowanych przez krajowy organ ds. nazw geograficznych. Państwowy rejestr jest prowadzony jako usystematyzowana lista standaryzowanych nazw geograficznych z ich atrybutami.

Państwowy Rejestr składa się z dwóch części: część pierwsza to nazwy geograficzne Ukrainy wraz z ich atrybutami, część druga to nazwy spoza terytorium Ukrainy w brzmieniu ukraińskim, a trzecia dotyczy nazw geograficznych obszarów nie podlegających jurysdykcji żadnego kraju.

Baza danych Państwowego Rejestru Nazw Geograficznych Ukrainy oraz nazw spoza jej terytorium zawiera nazwy miejscowości i jednostek podziału administracyjnego, atrybuty fizjograficzne, społeczno-gospodarcze oraz atrybuty dotyczące rezerwatów przyrody. Baza form przymiotnikowych od nazw geograficznych odnoszących się do terytorium Ukrainy jest w trakcie przygotowania, ponieważ zasady ich opracowania nie zostały dotychczas ujednoczone. Ukraińskie nazwy geograficzne są zgodne z normami i regułami wymowy i ortografii ukraińskiej. Nazwy geograficzne obszarów poza Ukrainą są zgodne z przyjętymi instrukcjami.

Procedura standaryzacji nazw geograficznych wiąże się z badaniami toponimicznymi oraz stosowaniem różnych metod analizy i syntezy: geograficznej, kartograficznej, historycznej i lingwistycznej.

Baza zestandaryzowanych nazw geograficznych Ukrainy została ukończona i zawiera około 65 000 haseł. Obecnie prowadzone są prace nad standaryzacją nazw geograficznych w języku ukraińskim spoza terytorium Ukrainy.

Tłumaczył M. Horodyski