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# MICROSTRUCTURE OF THE ENGLISH-RUSSIAN LSP DICTIONARY OF THE TERMINOLOGY OF THE CANADIAN ENVIRONMENTAL LAW

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## GENERAL DESCRIPTION OF WORK

The abstracted dissertation research is devoted to the issues of projecting the microstructure model of the English-Russian LSP dictionary of the terminology of the Canadian environmental law.

At present, there is a rapid growth of problems caused by negative anthropogenic impact on the environment, as well as related legal aspects of ecology, which stimulates the constant development of the legislative base of the environmental law of many countries. These issues have traditionally received the most extensive coverage in English-speaking countries, one of which is Canada, in part of the territory of which there is a similarity of geographical conditions with the geographical conditions of our country. Any similar process of development of the scientific or professional knowledge field becomes the reason for the growth of the number of special concepts, which generates the need for their representation in the LSP dictionaries.

The last decade was marked by an increase in the scientific interest in the selection, description and presentation of the terminology of the ecology in the LSP dictionaries. Turning to the terminological vocabulary of such professional and scientific fields as "Ecology" and "Environmental Law", it is impossible not to mention that no attempt was made to describe it in the learner's dictionaries that could be of considerable value in the training of future specialists in these specialties. In addition, the number of terminological dictionaries on environmental law is small. As a rule, most such dictionaries are general terminological and, for this reason, cannot fully provide the user of the dictionary with terms in such narrow professional specifics as environmental law. In such a situation, it is obvious that when studying the environmental law, the necessity acquires the use of a highly-specialized dictionary on a given subject discipline. With regard to the nature of the presentation of terminological units in dictionaries, it should be noted that in existing LSP dictionaries of the environmental law, ecology and jurisprudence, information on the terminology units described is not presented in such a way that it is adapted for Russian-speaking students studying English as a foreign language in such specialties as "Environmental Law", "Ecology" and "Jurisprudence".

The reasons mentioned are the urgency of this research, which is the need to develop a model of the microstructure of the English-Russian LSP dictionary of the terminology of the Canadian environmental law for Russian-speaking students. Particular attention is paid to the design of definitions of terms by taking into account a number of factors that we have identified.

The novelty of this research consists both in the object of research, in the role of which the terms of environmental law, functioning in the texts of normative acts of environmental law of Canada and terminological dictionaries and representing another linguistic culture for the Russian-speaking user of the dictionary, and in the subject of

research — the microstructure of the English-Russian LSP dictionary of the terminology of the Canadian environmental law.

The purpose of this study is to develop an effective method for solving problems of bilingual lexicographic description of Canada's environmental law terminology by developing a microstructure model for the English-Russian LSP dictionary of the terminology of the Canadian environmental law and the subsequent representation of different types of terms in dictionary entries. To achieve this goal, we solve the following research tasks:

- 1. To consider the concept of educational lexicography and the parameters of typologization of educational dictionaries, as well as to study the characteristics and functions of the LSP dictionary.
- 2. To describe the properties of terms in order to determine the linguistic factors that determine the construction of the microstructure of the English-Russian LSP dictionary.
- 3. To present the mechanisms for studying the addressee of the dictionary and compile a profile of the user of the English-Russian LSP dictionary of Canadian environmental law.
- 4. To Analyze the corpus of terms of the Canadian environmental law and to create a logical-conceptual scheme for the terminology of this professional field.
- 5. To implement cross-language comparison of the English-language terms of the Canadian environmental law and the Russian-language terms of the ecological law of the Russian Federation.
- 6. To conduct an intralinguistic comparison of the terms of the Canadian environmental law on the basis of Canadian environmental acts, as well as LSP dictionaries on this topic.
- 7. To develop a microstructure model for the English-Russian LSP dictionary of the terminology of Canadian environmental law, taking into account the factors identified in the study.

The research material is determined by the subject of our study that includes 103 legislative acts of environmental law of Canada. The general legal acts of Canada, legislative acts of environmental law of the Russian Federation, as well as English and Russian-language terminology dictionaries on ecology and jurisprudence were used as a supplementary material.

The hypothesis of this study is based on the assumption that designing the microstructure of English-Russian LSP dictionary of the terminology of Canadian environmental law is influenced by three factors — anthropocentric, linguistic and lexicographic. The anthropocentric factor determines the need to identify such characteristics of the users of the dictionary as the subject competence, general competence in the foreign language, professional linguistic competence, and

lexicographic competence. The linguistic factor determines the need to take into account the key characteristics of the term from the point of view of this study: the terminological categories and also the degrees of the term motivation. The lexicographic factor assumes the account of the aim and features of this dictionary type — the LSP dictionary.

To solve the tasks, the following **set of methods** was used: the method of definitional analysis of terminology, the method of categorical analysis, the method of system analysis, the method of comparative analysis, the method of lexicographical modeling, the functional method in lexicography.

The methodological and theoretical basis of the dissertation research were the work on the problems of theoretical and applied terminology of such domestic and foreign scientists as K. Ya. Averbukh, G. O. Vinokur, B. N. Golovin, S. V. Grinev-Grinevich, V. P. Danilenko, L. A. Kapanadze, I. S. Kvitko, V. M. Leichik, D. S. Lotte, J. Pearson, A. A. Reformatsky, A. V. Supperanskaya, L. V. Shcherba; In particular, work on the semantics and nature of the term of T. L. Kandelaki, A. V Lemov, V. D. Tabanakova. Particular importance for the study of the properties and characteristics of terminological definitions, as well as the methods of their construction, belongs to the works of B. E. Antia (2000), A. M. Akhmetbekova (2014), V. M. Leichik (2007), K. Pakayzer 2009), L. V. Popova (2011), A. V. Superanskaya (2012), V. D. Tabanakova (2001), R. Temmerman (2000).

A significant contribution to the development of macro- and microstructure of dictionaries was made by B. T. Atkins (2008), H. Bergenholtz (1997, 2010), A. S. Gerd (1986), S. V. Grinev-Grinevich (2009), V. Dubichinsky (1998, 2008), W. Kaufmann (1997), I. S. Kudashev (2007), O. M. Karpova (2005, 2010, 2016), G. N. Lovtsevich (2008, 2009, 2010), V. V. Morkovkin (1977, 1986, 1992), M. Rundell (2008), P. A. Fuerts-Olivera (2009), S. Tharp (2004, 2008, 2010), K. M. Shilikhina (2006).

# The scientific novelty of the study is as follows:

- 1. A method for determining the user profile of the vocabulary of Canadian environmental law terminology based on a functional approach in lexicography is proposed.
- 2. The relationship between the type of user of the dictionary and the need for allocation in the definition of the term of a brief scientific definition and a zone of encyclopedic information is determined.
- 3. The analyzed corpus of terms of environmental law of Canada is represented by the logic-conceptual scheme of the terminology of Canadian environmental law in the form of a semantic network that reflects the paradigmatic relations between different hierarchical levels of the given terminology system.
- 4. The algorithm of interlingual comparison of the terms of environmental law of Canada and the Russian Federation is described with the purpose of revealing the socio-

cultural specifics of this terminology, as well as explaining and describing the similarities and differences between the two multilingual terminology systems.

5. The algorithm of the intralinguistic comparison of the terms of environmental law of Canada for designing the fullest possible definition of the term and the exact transfer of the linguistic and sociocultural specifics of the terminology of Canadian environmental law is described.

# The following **provisions** are made:

- 1. The construction of the microstructure model of the English-Russian LSP dictionary of the terminology of Canadian environmental law requires consideration of such factors as the type of user, the type of dictionary, and the type of terminology unit. At the same time, the anthropocentrism of the vocabulary of the terminology of the environmental law of Canada is of decisive importance in the design of the microstructure model of a given type of dictionary and the selection of lexicographic parameters.
- 2. Effective construction of the microstructure of the English-Russian LSP dictionary of the terminology of Canadian environmental law requires an analysis of the sociocultural context of the term's functioning and the subsequent presentation of terms in the form of a logico-conceptual scheme for the terminology of Canada's environmental law with a view to establishing paradigmatic relations between its elements.
- 3. The construction of the definition of a term that is foreign to the user is based on modern principles of comparative linguistics and requires the use of two approaches:
  a) interlanguage comparison of the terms of two multilingual terminology of environmental law Canadian and Russian, and b) intra-linguistic comparison of Canadian environmental terms.
- 4. Interlingual comparison of the English terms of environmental law of Canada and the Russian terms of environmental law of the Russian Federation serves to distinguish three types of relations of transferable equivalence between English-speaking terms of environmental law in Canada and the corresponding Russian-language terms full and partial equivalents, and the non-equivalent terminological units. A sufficient step in the terminographic work with full equivalents is to encode them by means of the mark of equivalence. The work on the construction of the microstructure of partial equivalents and the non-equivalent terminological units requires further conceptual analysis because of their considerable linguistic and sociocultural determinancy, which necessitates its description and explanation for the Russian-speaking user of the dictionary.
- 5. The intralinguistic comparison of Canada's environmental law terms serves to construct the most accurate and complete terminological definitions, as well as the reflection in the dictionary article of the specifics of socioculturally determined

Canadian environmental terms. This result is achieved through a meaningful comparison of the definitions of the same term in a number of sources. Intra-linguistic comparison is impossible without a preliminary classification of the terminological body: a) according to the criterion of the westerly membership, b) by the criterion of functional connectivity, and c) by terminological categories.

- 6. The definition of terms is determined by the terminology category. From such categories of terms as "entities", "activities" and "collective categories", the definition of entities is possible and effective from the point of view of the traditional approach in terminology both with the help of intensional and extensional definitions. Under the definition of the terms "activities" and "collective categories", it is advisable to use the methods of the socio-cognitive approach in terminology to identify the core definition and to supplement it with models of understanding consisting of modules of information that, as a rule, differ in the various terminological categories.
- 7. The invariant model of the microstructure of the educational terminological dictionary consists of fixed and optional components and serves as a basis for constructing the microstructure of all types of terms of environmental law of Canada.

The reliability of scientific provisions is confirmed by the selection of relevant terminological sources (legislative acts of environmental law of Canada, general legal acts of Canada, legislative acts of environmental law of the Russian Federation, recognized terminology dictionaries on ecology and jurisprudence), as well as the results of questioning users of bilingual terminology dictionaries, conducted among students of the Far Eastern Federal University, studying in non-linguistic faculties.

The theoretical significance of the dissertation research is determined by the fact that it contributes to the further development of terminology and learner's terminography. The study presents an approach to the formation of the microstructure model of the English-Russian LSP dictionary of the terminology of Canadian environmental law, in which the transition from interlanguage comparison of English-Russian and Russian-language environmental law terms of Canada to an intralinguistic comparison of Canadian environmental law terms within the English language is reasonably carried out. The described algorithm for interlanguage comparison of English-Russian and Russian-language terminology of environmental law, as well as intra-language comparison of an individual terminology, can be used as a basis for comparing the terminology of other areas of scientific or professional knowledge. The theoretical results of the study, as well as the proposed steps for the construction of the dictionary articles of the terminological dictionary, can serve as a material for the preparation of a special course on Lexicography and Terminography.

The practical significance of the dissertation research is that for the first time we developed the microstructure model of the educational English-Russian terminological dictionary of environmental law of Canada. This model can be used by researchers in

the field of lexicography and terminology in order to develop an educational bilingual dictionary of the English-language terminology of environmental law for future specialists in the field of jurisprudence and ecology who study English in the field of higher education, and also serves as a model of microstructure in the preparation of the LSP dictionaries on various scientific and professional directions. Also, the proposed algorithm for describing terminological units from the point of view of accounting for these factors can be used in the development of dictionary articles of various types of terminology dictionaries.

**Approbation of the study.** The materials and the main provisions of the dissertation research were discussed at the sessions of the Department of Linguistics and Intercultural Communication of the Far Eastern Federal University. The main provisions of the work are presented in eight publications, three of them are published in the publications of the Higher Attestation Commission.

**Structure and scope of the dissertation.** The aims and objectives of this dissertational research determine its structure, which consists of an introduction, two chapters, conclusion, a list of literature and sources and an appendix.

### **BASIC CONTENT OF WORK**

In the introduction, the relevance of the topic of this study is substantiated, the object and the subject of research are determined, its goals and objectives are formulated, the material of the research is formulated, the novelty of this research is substantiated, the provisions put forth for defense are stated, the theoretical and practical significance of the study is determined, information about the approbation of the results obtained as well as the structure of the dissertation research.

In the first chapter "The term as an object of the description of the LSP dictionary," we solve two problems — the study of the features of the learner's lexicography and terminography, as well as an analysis of the main characteristics of the term and terminological definition.

Learner's lexicography as an independent section of lexicography was conceived and received the most extensive development in Great Britain in the third decade of the 20th century. It is associated with the names of such British and American lexicographers and teachers as K. Ogden, H. Palmer, E. L. Thorndike and A. S. Hornby. In the course of its historical development, the English-language teaching lexicography was designated by a number of successive stages: a) the transition from the questions of lexical selection to the questions of the definition of lexical units; b) the transition from questions of definition to questions of help to the user of the dictionary in the active application of vocabulary and, further, c) to the description of the words of a foreign language in close connection with the elements of his culture. Approaching the history of the Russian learner's lexicography, we note that its main feature was the focus on the

creation of dictionaries for teaching Russian students a foreign language. It is obvious that the first Russian-language dictionaries, possessing the features of learner's dictionaries, appeared as early as the beginning of the 19th century. However, the greatest development of domestic teaching lexicography was due to the works of V. V. Morkovkin and P. N. Denisov, finally forming into scientific discipline in the second half of the 20th century. At the same time, one of its most important principles is formulated in academic lexicography — the principle of anthropocentrism, which consists in the necessity of taking into account the subject, as well as the linguistically and lexicographically relevant needs of the users of the dictionary.

Learner's lexicography is an independent part of a broader subject area — general lexicography — and represents "a special linguistic methodical discipline, the content of which are theoretical and practical aspects of the description of vocabulary for educational purposes" (Grigorovich, 2011). In more general form, learner's lexicography can be presented as a theory and practice of compiling dictionaries for foreign language learners. The main difference between the academic lexicography and the academic lexicography, in the opinion of L. A. Novikov and V. V. Morkovkin, is its pedagogical orientation, that is, orientation to the description of vocabulary for educational purposes. The result of the practical activity of the learner's lexicography is a learner's dictionary, that is, a dictionary, which is intended to assist in the study of a foreign language. The main task of the learner's dictionary is to provide both the process of reception and the process of production of thought. According to the researchers, the main features of the learner's dictionary are determined by its anthropocentric character, which presupposes a careful selection of vocabulary, the use of simple and understandable definitions, the existence of a context for the use of the described word, and the control of the compatibility of lexical units.

In the general theory of lexicography, there are many typologies of dictionaries, compiled on the basis of a set of differential signs. Based on the analysis of these characteristics, we came to the conclusion that the parameters typologization of dictionaries, singled out in the general theory of lexicography, are applicable to the learner's dictionaries. In this paper, we present the following parameters of typology of dictionaries, which coincide in most researchers: in terms of linguistic orientation (monolingual, bilingual and multilingual), in order of location of the material (alphabetic and ideographic), in the content of the dictionary article (linguistic, encyclopedic and linguo-encyclopedic), on the selection of vocabulary (general and special dictionaries), as well as on the orientation towards reception / production (active and passive dictionaries). Within the framework of this typology, the microstructure of a bilingual, alphabetic, linguo-encyclopaedic, special and active-passive vocabulary is carried out by the analyzed parameters.

The LSP dictionary is a special lexicographic genre, as its design is carried out within the framework of terminography — a complex discipline that combines Terminology and Lexicography. This type of dictionary has both descriptive and prescriptive character, which determines its basic functions — systematizing, reference and educational. It is important to note that the function of any LSP dictionary is due to the features and degree of development of a specific terminology layer. The main requirements that are allocated to this type of vocabulary in order to ensure the maximum harmony of the compilation of the dictionary are a) adequate coverage of the terminological vocabulary of the given field of professional knowledge, b) exhaustive information on all necessary terms, c) absence of unnecessary information, and D) the unification of the composition and the reference apparatus of the same type of dictionaries.

The main tasks solved by the compiler of the LSP dictionary are the construction of the microstructure of the dictionary and the selection of the terminological dictionary. Since the object of the description of the LSP dictionary is the term, the construction of the microstructure of such a dictionary is based on the description of the term-heading unit by means of its semantification by means of terminological definition, translated eqvivalent, synonyms, lexicographic illustration, list of elements of the semantic field, etc. The work on the LSP dictionary is carried out in accordance with a number of requirements, the main of which are strict standardization, minimization and unification of terms. The main stages of work with sources of terminological units allocated by researchers (Dubichinsky, 1998, 2008, Kudashev, 2007; Lovtsevich, 2008, 2009) suggest selection of the types of sources, selection of specific materials, selection of methods for extracting, processing and storing information, extracting and storing information, fixing information about the sources of the dictionary. As a rule, in terminographic literature, the majority of researchers distinguish the following types of sources of terms: terminological publications, nonterminological publications and classification publications. Among other things, some researchers (Nassimi, 2004) propose a number of additional systematic methods for selecting the terms and determining their volume, the common feature of which is their orientation to the situation of using the dictionary, the characteristics of the addressee of the dictionary, as well as its subject, linguistic and lexicographic needs.

As the main features and properties of terms, linguists stand out unambiguity, certainty, conciseness, systematic nature, definitiveness, emotionally expressive neutrality, the lack of modal and stylistic function, indifference to the context, conventionality, the absence of synonyms and homonyms within the particular terminology and internationality. At the same time, we note that many of the requirements put forward to the term are inherent, rather, the initial stage of development of terminology and are typical of the "ideal term", not being achievable in

the real sphere of the functioning of the term. One of the reasons for this trend is probably the change of the scientific paradigm to the cognitive Terminology, in which phenomena such as polysemy and synonymy, require account and description. In addition, such characteristics as nominativity and definition are not considered strictly specific for the term, remaining, in our opinion, its typical properties. Approaching the part-of-speech issue of the term (Averbukh, 2004, Akhmanova, 1966, Dubichinsky, 1998, Kudashev, 2007), we consider terms as a collection of nouns and noun phrases, as well as phrases with a noun in the role of a support word including verbs and adjectives. As a rule, the definitions of the term emphasize the functional and semantic aspect of the term and the understanding of the term as a word or phrase associated with a concept that belongs to any area of knowledge or activity. A term is usually understood as a linguistic sign — a word or phrase that has a nominative and definitive function that describes the objects and concepts of a particular area of knowledge.

Much attention is paid to such a feature of the term as the motivation of its form, which we further take into account when drafting a terminological definition. From the point of view of motivating the form of the term, fully motivated terms are singled out: "hydroelectric station"; partially motivated terms: "ant temple"; false-motivated terms: "sea level on Mars"; unmotivated terms: "rhombus". Since each of the above-mentioned degrees of motivation of the term in various degrees reveals the completeness and truthfulness of its content, we have suggested that the terms possessing different degrees of motivation may suggest different approaches to their semantization.

We share the point of view of researchers who believe that the definition is the dictionary logical definition of a concept in order to identify the boundary separating the objects covered by this concept from related concepts (Golovin, Kobrin, 1987; Grinev-Grinevich, 2008; Leichik, 2007; Superanskaya and others, 2012). Chapter 1 summarizes the basic requirements that most authors assign to the terminological definition and describes the main ways of definition, adopted within the framework of traditional and sociocognitive approaches in terminology. The main types of definitions of the traditional approach are intensional and extensional. In the intensional definition, the meaning of the term is explained on the basis of its closest species concept and specific features, which make it possible to delimit the described concept from related concepts within a given genus. The extensional definition is constructed by enumerating all kinds of genus or parts of the whole. In the future, we turned to the categories of terms that are singled out and described from the perspective of the sociocognitive approach in terminology — entities, activities as well as collective categories. It was determined that within the framework of the definition of the category of "entities", the application of these types of definitions is expedient and effective, since it seems possible to clearly distinguish the higher concept and features that allow it to be bounded from related concepts, as well as the allocation and transfer all species components of the genus.

However, the definition of such terminological categories as "activities" and "collective categories" is in many cases ineffective or impossible from the standpoint of the traditional approach in terminology. Appealing to the principles of sociocognitive approach (Temmerman, 1997, 2000) showed that in relation to these categories, it is necessary to use other strategies of definition, generally characterized by the isolation of the internal definition, supplemented by models of understanding, consisting of relevant for each case under consideration Information modules. This allowed us to conclude that the most effective definition of terms of various categories can be achieved by combining the principles of traditional and sociocognitive approaches.

In the second chapter, "Designing the microstructure of English-Russian LSP dictionary of Canadian environmental law" for the purpose of designing the microstructure model of the LSP dictionary, we approached the questions of the dictionary orientation for the user. Within the framework of these issues, we analyzed the positions of the functional approach in lexicography. Having considered the points of view of a number of researchers (Grinev-Grinevich, 2009, Bergenholtz, 2010, Nassimi, 2004, Tarp, 2005), we came to the conclusion that for the effective design of the microstructure of the bilingual LSP dictionary of Canadian environmental law, it is necessary to compile a user profile with the special attention to the subject, linguistic and lexicographic needs of the user of the dictionary. The user profile defines such important parameters of the dictionary as the correct presentation of the terminological material, as well as the determination of the number and composition of the terms described.

It is important to understand that from the point of view of subject competence (Gouws, 2010) users of dictionaries can be included in such groups as a) laypeople, b) semi-experts, and c) experts. From the point of view of the general linguistic competence of another language, users of dictionaries can be classified according to the following levels of linguistic competence accepted in linguodidactics: primary, intermediate and advanced levels (levels "A", "B" and "C" in the Common European Framework of Reference for Languages). Professional foreign language competence, however, has a differentiated character — among laypeople it is at a low level, while among semi-experts and experts it can vary from medium to high. Based on these parameters of the subject and linguistic competence of users of dictionaries and analyzing the existing classifications of users of dictionaries, in the study as a starting point of determining the profile of the user of the dictionary, we accept the category of laypeople. As a result, we came to the conclusion that it is possible to identify the following categories of users of the educational bilingual vocabulary of Canada's environmental law terminology — low-competent and competent students.

In order to determine the lexicographic competence of the categorized users, we conducted a survey of users of bilingual LSP dictionaries among students of the Far

Eastern Federal University of the first and second years studying in non-linguistic specialties and studying English as a foreign language. In total, 200 respondents took part in the survey. The analysis of the results confirmed the need to develop a user-oriented micro-structure of a bilingual LSP dictionary whose input language is English, the output language is Russian (the user's native language), taking into account the difficulties experienced by the user when using the LSP dictionary.

Having decided upon the type of vocabulary for which the microstructure is being constructed, we proceeded to the next important step — the selection of the terminological vocabulary, which was impossible without reference to the broader context of the study, namely Canadian environmental law. This stage of this study is based on the description of the hierarchical and partitive structure of the terminology of environmental law in Canada. Canadian environmental law does not have a separate section in the Constitution of Canada and its powers are largely based on other sections of Canadian law, such as, for example, Criminal law. An analysis of the legislative acts of this region showed that Canada's environmental law is represented by two basic types of legislative acts: legislative acts adopted at the federal level and legislative acts adopted at the level of the thirteen provinces and territories of Canada, which allows us to speak of it as of a two-part set of federal and provincial environmental law. The peculiarity of the legislative acts is that they can be either complementary in relation to acts of the federal level (they describe the legal aspects that are not sufficiently affected by federal environmental law) or specifying (describe the legal aspects of federal environmental law, but bear more specific character with respect to the areal peculiarities of a given province).

It is noteworthy that such a variety of types of legislative acts of environmental law in Canada leads to the appearance of areal differences of terms, the essence of which is the possibility of having differences of the properties of terms described in different legislative acts, quantitative or qualitative differences, as the definitions of the term "water body" in a number of legislative acts show: "Water Protecton Act" "The Water Rights Act" (Manitoba), (Manitoba), "Water Act" (Alberta); "Environmental Protection Act" (Ontario); "Forestry Act" (Newfoundland). Such a variety of shades of meanings of terms was displayed by us in the dictionary entries with the help of lexicographical notes indicating the area (in this case it is one of the provinces or territories of Canada), where this or that feature of the meaning of the term is fixed. In order to ensure understanding of the litter of the Russian-speaking dictionary users, the provinces of Canada were designated by a number of abbreviations:

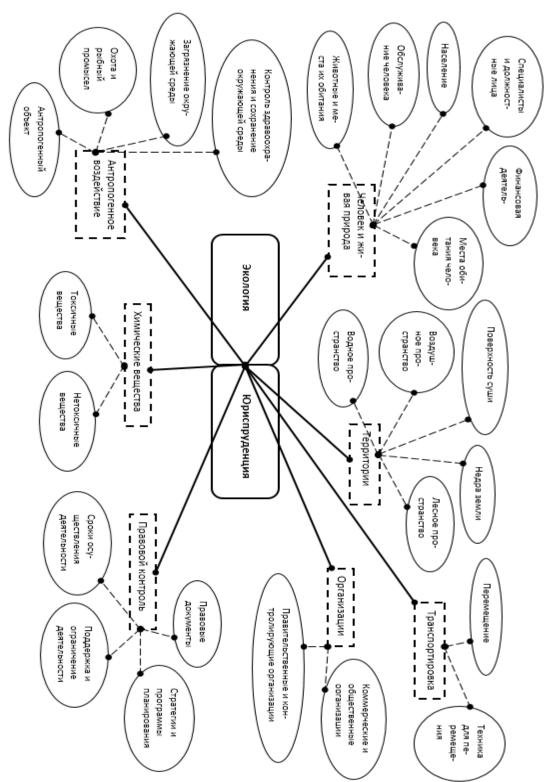
"Domestic purpose»"	"water body"
БК:	НФ:
Mau·	Опт

The next step was the development of a logical-conceptual scheme for the terminology of the Canadian environmental law. Formally-logical analysis with the use of categorical and definition methods was subjected to the corpus of terms in the number of 1262 units, formed during the selection of primary laws (legislative acts of environmental law in Canada) and secondary (textbooks in the specialty, English dictionaries of the terminology of environmental acts and translation legal dictionaries) of terminological sources, as well as selection of terminological units in accordance with the criterion of significance. Formal-logical analysis was a sequential selection of three levels: 1) detecting the general fragments of knowledge of the conceptual domain in question; 2) the allocation of specialized fragments of knowledge of the conceptual domain under consideration; 3) the allocation of highly specialized fragments of knowledge of the conceptual domain in question. The description of the first level suggested the separation of two key fragments of knowledge — ecology and jurisprudence. When forming a lower hierarchy of the sublevel, seven specialized fragments of knowledge were identified. In describing the third, inferior sublevel, twenty-five narrowly specialized concepts were singled out. The logical-conceptual scheme of this area has an umbrella structure that can be effectively reflected in the form of a semantic network (see Figure 1).

The main objective of this chapter was a comparative study of the terms of environmental law necessary to build accurate definitions of the term and construct an effective model of the microstructure of the English-Russian LSP dictionary of Canadian environmental law. This stage was preceded by an appeal to the principles of comparative research, distinguished in modern comparative linguistics and terminology for determining the algorithm for further comparison of the terms of environmental law. This allowed us to talk about the need to implement both cross-language comparison of the terms of the multilingual terminology of the environmental law of Canada and the Russian Federation and the intralinguistic comparison of the English-language terms of Canadian environmental law.

Picture 1.

Logical and conceptual scheme of the terminology system "Environmental Law of Canada"



The need for the cross-language comparison of English and Russian terms of environmental law is caused by cases of incomplete or absent equivalence of the meaning of the multilingual terms of this area of professional knowledge, which is a serious obstacle to successful professional communication among environmental law specialists. Particular difficulty in understanding the terminology of Canadian

environmental law by a Russian-speaking user of the learner's dictionary is the significant determinism of the terms of the humanities, which part the environmental law is, sociocultural and pragmatic factors that cause differences in the conceptual content of the terms of different linguistic and socio-cultural areas. Turning to the description of the interlingual correspondences of the Voronezh Theoretical and Linguistic School (I. P. Zlenko, I. A. Sternin, E. A. Maklakova, T. A. Chubur), as well as to the views of researchers on this issue (Gancheva, 2004; Lovtsevich, 2009), for the purpose of further cross-language comparison, we focused on the description of the following types of transferable equivalents of the terms of environmental law of Canada and the Russian Federation — full and partial equivalents, and non-equivalent terminological units. Identification of the degree of equivalence of the term was carried out on the basis of the study of definitions of English and Russian terms, selected from the material of legislative acts of environmental laws of Canada and the Russian Federation, and also on the basis of studying the context of their use:

- air pollution = загрязнение воздуха, загрязнение атмосферного воздуха, атмосферное загрязнение
- non-municipal year-round residential drinking water system ≈ автономный водопровод, частный водопровод
- Crown reserve area ≠ резервные территории короны

We have identified all types of equivalence between the terms of environmental laws of Canada and the Russian Federation, which we encode by means of a series of lexicographic marks. Full equivalents are coded using a mark in the form of the equal sign =. Partial equivalents are encoded with a mark of approximate equality. For the purpose of denoting the absence of equivalence for the English-speaking term of environmental law in the Russian language, we use the following lexicographic mark  $-\neq$ . In our opinion, the full equivalents represent the least complexity for the understanding of Russian-speaking users of the dictionary, since this type of transferable equivalents is characterized only by the mismatch of the word form in English and Russian, without any conceptual differences of a sociocultural nature. The greatest difficulty for a Russian-speaking user of the dictionary are partial equivalents, as well as the non-equivalent terminological units. The reason for the special complexity of partial equivalents is that a user of a dictionary that is not sufficiently acquainted with the characteristics of the external linguistic and socio-cultural area can either a) choose the wrong terminological equivalent in the translation process, or b) build inaccurate or incorrect assumptions about the meaning of the English term from the position of their socio-cultural range. The non-equivalent terminological units include both terms and nomenclature, describing such realities of the Canadian environmental law, which are fundamentally uncharacteristic of the system of environmental law of the Russian Federation. The

microstructure of such groups of terminological equivalents requires an explanation of the features of their meanings (similarities and differences) in the commentary area of the dictionary entry:

# • non-municipal year-round residential drinking water system ≈ автономный водопровод, частный водопровод

! Общей чертой между термином «non-municipal year-round residential drinking water system» и его русскоязычными соответствиями «автономный водопровод» и «частный водопровод» является то, что они используются для обозначения системы водопровода, функционирующей независимо от системы городского водопровода и обслуживающей частные владения. Однако термин «non-municipal year-round residential drinking water system» обозначает систему частного водопровода, используемую только для обеспечения доступа к питьевой воде объектов жилой застройки, включающих в себя не более шести частных домовладений, либо трейлерный парк, обеспечивающий доступом к воде не менее шести других объектов. Данные термины в экологическом праве Российской Федерации используются для обозначения системы водопровода, обслуживающей единичное частное владение.

# • Crown reserve area ≠ резервные территории короны

! Данная территория находится под властью монарха Великобритании, формально являющегося главой государства. В настоящий момент данный пост занимает королева Великобритании Елизавета II. Полномочия королевы в Канаде на федеральном уровне представляются генералгубернатором и вице-губернатором в каждой из провинций и территорий.

In Table 1, we give the most typical examples of English-Russian and Russianlanguage terminology of environmental law, which demonstrate various types of translational equivalence:

Table 1. Selection of translated equivalents of the English-language terms of the Canadian environmental law and Russian terms of environmental law of the Russian Federation

Full equivalents		
Adequate protective clothing	=	Надлежащая защитная одежда
Bill of lading	=	Товарно-транспортная накладная
Dosimetry service	=	Служба дозиметрического контроля
Emission offset	=	Компенсация выбросов
Partial equivalents		
Aboriginal government	$\approx$	Правительство коренных народов
Eligible protection or development expenses	$\approx$	Допустимые расходы на сохранение или
		развитие
Non-municipal year-round residential drinking wa-	$\approx$	Автономный водопровод, частный водо-
ter system		провод
Non-equivalent terminological units		
Cree Nation Government	$\neq$	Правительство народа кри
Crown charges	$\neq$	Расходы короны
Crown timber Department	$\neq$	Лесной департамент короны
Round Table	$\neq$	Круглый Стол

The problem of defining the terms of environmental law of Canada is solved in the next paragraph and is based on the intralinguistic comparison of the terms of environmental law of Canada. For the subsequent intralinguistic comparison of the terms of environmental law in Canada, we deem it unnecessary to classify the corpus of terms in the study area a) by the part-of-speech criterion, b) by the criterion of functional connectivity, and c) by terminological categories. These steps were predetermined by the need for a differentiated description of terms that have different degrees of motivation. The implementation of these steps made it possible to draw up a scheme for taking into account the parameters of the description of the corpus of the terms of the environmental law of Canada (see Figure 2).

Figure 2.
Scheme of parameters for the description of the corpus of terms of the environmental law of
Canada



The intralinguistic comparison of the terms of Canadian environmental law suggested a comparison of the definitions of the English terms of Canadian environmental law, functioning in the legislative acts of environmental law of Canada, the general legal acts of Canada and terms fixed in terminological dictionaries on this topic. Such a comparison served to reveal the similarities and differences between the meanings of the same term of environmental law of Canada, presented in the above sources.

The purpose of the intralinguistic comparison was to convey the linguistic and sociocultural specifics of Canadian environmental law to construct the most accurate and accurate terminological definitions for the Russian-speaking user of the dictionary. The intra-linguistic comparison of Canadian environmental terms was

carried out through the definition and system analysis of the definitions of environmental law terms in Canada. We have revealed that the conceptual content of the definition of the term, as well as the commentary area of the dictionary entry, is predetermined by the following factors: the term's belonging to one of the terminological categories, the degree of its motivation, and also the types of users of the dictionary.

Based on the preliminary classification of the corpus of terms according to the parameters discussed above, as well as the analysis of the specifics of the definition of the terms of different categories, we came to the following algorithm for constructing definitions of terms. Definitions of terms of the category of "entities" are constructed by us from the standpoint of the traditional approach in terminology, while the defining the terms of the category "activities" and "collective categories" is carried out from the standpoint of a sociocognitive approach.

The construction of terminological definitions of "entities" implies the separation of terms of this category according to the degrees of motivation. In turn, for terms with certain degrees of motivation, this implements bicomponent composition definition of the term, consisting of a) a brief scientific definition, by which we mean a number of nuclear components of a concept that coincide in a number of sources, and b) zones of encyclopedic information. Such a structure of the definition presupposed an increase in the subject-matter competence of the two types of dictionary users identified in the study. As an example illustrating this algorithm, we can provide the term "federal land" (a partial equivalent) of Canadian environmental law, the definitions of which were analyzed on the material of two Canadian legislative acts:

#### • Environment Protection Act:

«federal land» means (a) land, including any water, that belongs to Her Majesty in right of Canada, or that Her Majesty in right of Canada has the right to dispose of, and the air and all layers of the atmosphere above and the subsurface below that land; and (b) the following land and areas, namely, (i) the internal waters of Canada as determined under the Oceans Act, including the seabed and subsoil below and the airspace above those waters, and (ii) the territorial sea of Canada as determined under the Oceans Act, including the seabed and subsoil below and the air and all layers of the atmosphere above that sea;

#### • Species at Risk Act:

«federal land» means (a) land that belongs to Her Majesty in right of Canada, or that Her Majesty in right of Canada has the power to dispose of, and all waters on and airspace above that land; (b) the internal waters of Canada and the territorial sea of Canada; and (c) reserves and any other lands that are set apart for the use and benefit of a band under the Indian Act, and all waters on and airspace above those reserves and lands.

Based on the intralinguistic comparison of the definitions of this term, we selected the "core" components of these definitions, which compiled a brief scientific definition:

• land, including any water • airspace above that land • subsurface below that land

In addition, on the basis of the definition analysis, such components of the concept were singled out which allowed to go beyond the brief scientific definition in order to increase the subject competence of one of the groups of users of the dictionary — competent students:

• the internal waters of Canada
• the seabed and subsoil below
• the airspace above those waters
• the territorial sea of Canada
• the seabed and subsoil below and the air and all layers of the atmosphere above that sea

As a result, the former definition of the term "federal land", consisting of a brief scientific definition, as well as zones of encyclopaedic information, underlined by a dashed line:

### • federal land ≈ федеральная земля

Любое пространство на территории Канады, находящееся под контролем монарха Великобритании: водные ресурсы, <u>включая территориальное море Канады, морское дно и воздушное пространство над водным пространством</u>, воздушное пространство, <u>включая все слои атмосферы над данной территорией</u>, а также недра на данной территории.

It was found that the definition of terms in the category "activities" and "collective categories" is also based on the comparison of terminological definitions from the above sources, but it implies other further steps. The definition of these categories of terms is implemented in accordance with the principles of the sociocognitive approach and requires the identification of a core definition supplemented by models of understanding consisting of relevant for a terminological category and individual term modules of information. This is due to the fact that it is impossible to effectively define these categories of terms through the formation of intensional and extensional definitions and the separation of the degrees of their motivation. Below are the definitions of the terms "processing" (category "activities") and "ecosystem" (collective categories), which are full equivalents for the corresponding Russian terms:

### • processing = обработка, переработка

Технологическое изменение какого-либо материала или продукта, включающее в себя ряд шагов, таких как: 1) (при обработке рыбной продукции) глазирование, консервирование, филетирование, заморозку, копчение, соление, консервирование, приготовление, маринование, высушивание рыбы или подготовку рыбы на продажу любым другим способом; 2) (при обработке продуктов сельскохозяйственного производства и лесных ресурсов) заготовку, распиливание, очистку, обработку, сортировку и упаковку продуктов сельскохозяйственного производства или лесных ресурсов.

# • ecosystem = экосистема

Единый развивающийся комплекс сообществ растений, животных и микроорганизмов, взаимодействующих друг с другом, а также с неживой окружающей средой, в которой они обитают.

The definition of the term "processing" contains, as a unifying component, a nonspecific description of the technological process that can equally be applicable to

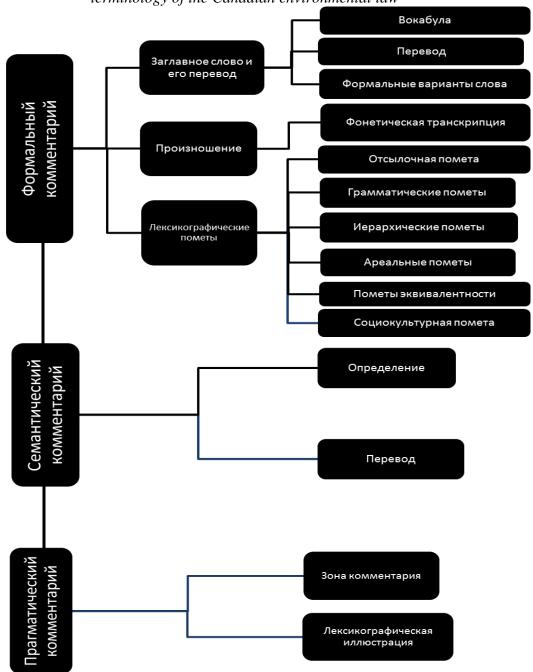
both processing of fish and processing of forest resources. The second part of the definition in brackets contains an indication of the scope of the functioning of the term; further, for each of these industries, a model of understanding was identified, consisting of such information modules as "action components" and "application sequence". The first part of the definition of the term "ecosystem" is also not based on the allocation of a more general concept, but on the use of the most common component in most of the definitions considered is the concept "complex". Then the information on the form of the relationship between living organisms (interaction) follows, as well as the dynamic nature of the relationship between living and natural components of the concept "ecosystem". The next component of the definition of this term is the information component "concept components", which allows us to specify in general terms what types of living organisms are a part of the system.

In order to determine the lexicographic means of describing the terms of the environmental law of Canada in the microstructure of the English-Russian LSP dictionary, we used the results of the conducted survey, and also turned to the remarks of authoritative researchers in the field of lexicography and terminography. As a result, two groups of microstructure components of the English-Russian LSP dictionary were singled out — fixed and optional ones. Fixed components include the headword and its translation, equivalence mark, phonetic transcription, grammatical notes, definition of the term, lexicographic illustration and reference mark. As optional components, components such as formal term variants, hierarchical marks, areal marks, as well as socio-cultural mark and mark of the commentary area of the dictionary entry are selected.

As a result of the research, a component model of the microstructure of the English-Russian LSP dictionary of Canadian environmental law terminology was compiled (Figure 3). The model we have constructed is projected onto the dictionary entries of terms that have different characteristics: in the terminological category of "entities", dictionary entries include fully motivated, partially motivated, false-motivated and non-motivated terms. Separate types of dictionary entries are terms of the category "activities" and "collective categories". One of the important results of this study was the identification of five factors that determine the concept and structure of the English-Russian LSP dictionary of the terminology of the Canadian environmental law: the type of dictionary, the type of dictionary user, the degree of equivalence of terms, the terminology category and the degree of motivation of the term.

Figure 3.

Component model of the microstructure of the English-Russian LSP dictionary of the terminology of the Canadian environmental law



The **Conclusion** summarizes the results of the conducted research, and presents the main provisions.

The main provisions of the work are reflected in the following publications.

In the publications included in the list of the Higher Attestation Commission of the Russian Federation:

- 1. Trifonov, A.S. Polysemy and synonymy as the functional characteristics of terms / A. S. Trifonov // Science Journal of Volgograd State University. Linguistics. Volgograd: Publisher VSU, 2015. № 3 (27). P. 97—101.
- 2. Trifonov, A. S. The impact of term motivation on the entry of semi-bilingual LSP dictionary / A. S. Trifonov // Humanities research in the Russian Far East. Vladivostok: FEFU, 2015. № 3 (33). P. 61—69.
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Other publications on the topic of dissertational research:

- 4. Lovtsevich, G. N., Trifonov, A. S. Terminological definition within the framework of traditional and sociocognitive terminology / G. N. Lovtsevich, A. S. Trifonov // Theoretical and Applied Linguistics. Blagoveshchensk: Publishing House of the AmSU, 2016. Issue 2, No. 5. P. 50—62.
- 5. Trifonov, A. S. Basic parameters for classification of the learner's dictionaries / A. S. Trifonov // Theoretical and applied linguistics. Blagoveshchensk: Publishing House of the AmSU, 2016. Issue 2, No. 5. P. 80—90.
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- 7. Trifonov, A. S. Criteria for terminology selection for the LSP dictionary / A. S. Trifonov // Theoretical and Applied Linguistics. Blagoveshchensk: Publishing House of the AmSU, 2015. Issue 1, No. 4. P. 76—84.
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