

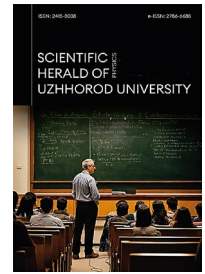
Scientific Herald of Uzhhorod University

Series "Physics"

Journal homepage: <https://physics.uz.ua/en>

Issue 55, 778–787

Received: 23.11.2023. Revised: 02.02.2024. Accepted: 08.03.2024



DOI: 10.54919/physics/55.2024.77mr8

The formation and problems of translation of environmental terms in the Kazakh language lexical system

Arailym Kuanyshbayeva*

Kazakh Ablai Khan University of International Relations and World Languages
050022, 200 Muratbayev Str., Almaty, Republic of Kazakhstan

Valeriy Makhpirov

Kazakh Ablai Khan University of International Relations and World Languages
050022, 200 Muratbayev Str., Almaty, Republic of Kazakhstan

Darkhan Kuanyshbay

Suleyman Demirel University
040900, 1/1 Abylai Khan Str., Kaskelen, Republic of Kazakhstan

Abstract

Relevance. Nowadays social, economic and political systems are taking place in our world. It leads to the emergence of new terms and concepts. New professions also appear. The professions like consecutive interpretation, written translation, simultaneous interpretation demands high competence not only in native language, but also in mastering the foreign language. Good interpreters should have a wide lexicon, not only in the foreign language but also in their mother tongue.

Purpose. Aims and tasks of such type of discourse is conditioned by the desire for accuracy an unambiguous interpretation of the text, which is realized through use of terms.

Methodology. This article deals with issues concerning ecological discourse phenomenon and its features in the linguistic and translation aspect.

Results. Environment becomes very important part of contemporary world community. Ecological problem permeates into communicative activity of society and influences its discursive space. Ecological issues are of the utmost importance in our century. It is due to need to protect the environment from destructive consequences of technological progress.

Conclusions. Scientists outlined a special type of discourse – ecological discourse. Scientific ecological discourse has the same features as scientific discourse. Many researches should be done in this sphere, but unfortunately, in Kazakhstan scientists don't pay enough attention to this problem.

Keywords: world; ecological discourse; technological progress; ecology; community.

Introduction

West environmentalism has deep traditions [1; 2]. Millions of people follow ecological lifestyle. Thus, they form wide target audience for ecological media. As for CIS (Commonwealth of Independent States) countries, ecological and social processes were interested by

specialists and ecological activists in those countries [3-7]. Ecological topics in Kazakhstan were mainly covered in "hard-to-reach specialized media" and in self-published material. However, globalization and formation of "network civilization" significantly influence media audience worldwide [8-10]. So, it's possible to find many

Suggested Citation:

Kuanyshbayeva A, Makhpirov V, Kuanyshbay D. The formation and problems of translation of environmental terms in the Kazakh language lexical system. *Sci Herald Uzhhorod Univ Ser Phys.* 2024;(55):778-787. DOI: 10.54919/physics/55.2024.77mr8

*Corresponding author



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information about global warming, climate changes and its consequences in the west countries, even very popular eco-activists, like Greta Thunberg, Greenpeace International, Xiye Bastida, Autumn Peltier are from west countries [11-13]. That's why it's necessary to improve our level of English, but first and foremost it's important to enrich the terminological system in the ecological sphere.

The necessity of ecological information in the society is due to rapid development of ecological journalism, in particular, ecological internet media. Thus, it can be noticed the following changes, like, a new type of informational resource for Kazakhstan, one is contemporary media, that touches upon topical issues and second one is devoted to ecological lifestyle [14; 15]. So, there is a formation of target audience, but still the audience differ from west audience with the level of awareness and interest in ecological issues. In light of trend data, there is a necessity of studying how ecological information presented in west traditions and what kind of

problems occur during translation, taking into account new target audience [16-20].

There are many researches in abovementioned sphere: considered the elements of contemporary terminological system; paid much attention to the special terminological systems in the ecological texts; worked on the processes of English terminological system; worked on innovational process of dictionaries in the ecological sphere; considered some aspects ecological discourse based on English [21-27]. S. Terekhova, N. Zhabo, N. Chen worked on peculiarities of translational terms of ecological discourse [28].

In this article, it's considered options of translation strategies for English ecological media discourse, taking into account genres, level of txt translatability and specific translation task. According to A. A. Tertichnyi it can be outlined the following genres of ecological media (Fig. 1) [29]:

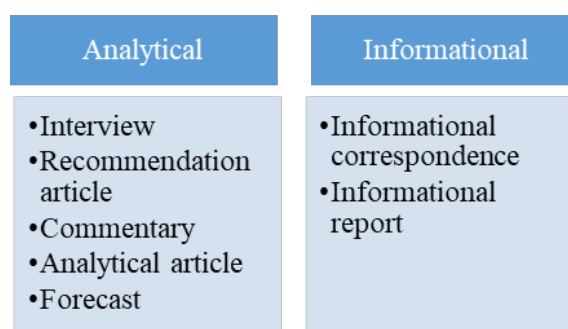


Figure 1. Genres of ecological media

Linguistic features of ecological media text: ironic tone; stylistically reduced vocabulary; figurative phraseology; usage of environmental terminology; unscientific style of storytelling; richness with realities; idiomatic vocabulary; original headers. Also, in this research it was investigated ecological discourse terminology and conducted structural analysis.

Definition of the term “term” and different views on the interpretation of this concept

Special terminology – special sector of lexis, which helps to regulate the terms [21; 30; 31]. Terminology is typical for every language. It is a kind of tool, which is used, in specific sphere. Before identifying the ecological term itself, it's necessary to identify what the term is (Table 1). There are many definitions of term, which were given by researchers and scholars, but still there is not a common definition for this concept.

Table 1. The definitions of "Term"

Scholars	Definition
S. Pronina	Term – word or phrase in a certain sphere or technology, that has constant and special meaning.
V. Smekayev	Term – Emotionally neutral word, that determines the concept and meaning in detailed way. Term is a concrete and stable, and neutral from the point of stylistics.
O. Supersanskaya	Term – is characterized not only by the stylistic connection, but also shows the tight connection in the system of concept definition in the certain educational sphere [28]
Webster's New Collegiate Dictionary	Term – word or expression that has a precise meaning in some specific sphere. It is peculiar to a science, art and etc.
Arnold	Term – word or collocation used for clarifying concepts specific for any branch or knowledge, production or culture and meeting communicative needs in this sphere.
Bourigault and Condamines	Term – terminological element that can be regarded as a linguistic expression of concepts in a specific field
Golovin and Kobrin	Term – word or a word-combination which has a special meaning, form and presents professional notions on scientific and professional objects and relations between them
Ovcharenko	Term – word or a collocation formed, borrowed or repurposed from the same language, which expresses a scientific concept, a concept of a special field of knowledge and human activity at nominating objects [32]

Taking into consideration different theories and definitions of "term", accordingly ecological term is a word or phrases that peculiar to ecological discourse [22-24; 33]. The emergence of ecological terminology in the translation is characterized by development of science in the environmental sphere. It plays an oversize role in the international exchange of information. The constant development of ecological sphere and the emergence of new terms, the enrichment of concept of terms lead to the necessity of translation of these terms into Kazakh language [34; 35]. Budding interpreter or students face many difficulties during the translation of ecological terms due to different structure of English terms [25; 26; 36].

Analysis of environmental terminology in Kazakh language lexical system

Official documents on the Internet and web-based resources allows us to claim that the emergency of environmental terminology in Kazakh language lexical system is directly connected to the environmental awareness that increases, improvement of environmental sciences and different eco-movements in the west countries [27; 37; 38]. Afterwards, there is a necessity to borrow some environmental terms. After analyzing 5500 environmental terms from official documents on the Internet and web-based resources current Kazakh language system can be (Fig. 2):

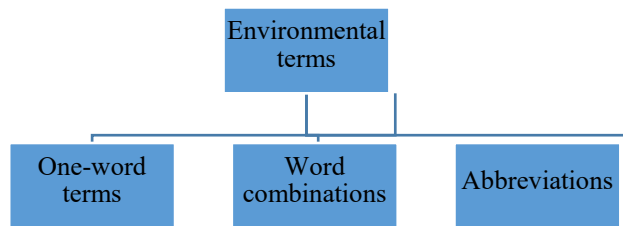


Figure 2. Environmental terms in Kazakh language system

Most of the environmental terms are borrowed from English, French and Italian. In particular, they have Latin or Greek origin. One-word environmental terms are

divided into 3 groups and comprise 40% of all analyzed environmental terms (Fig. 3).

Simple Жай сөздер	<ul style="list-style-type: none"> • air • land • earth • system
Complex Күрделі сөздер	<ul style="list-style-type: none"> • ecosystem • biosphere • overpopulation • ecospecies
Derived Туынды сөздер	<ul style="list-style-type: none"> • environment • biodiversity • mutualism • conservation

Figure 3. Environmental terms

Simple terms consist of only one morpheme, which is root. Even though, there are many simple words on the Internet resources, it does not compose the large group of

one environmental terms. Examples of one-word environmental terms are shown in the Table 2.

Table 2. One-Word Environmental Terms

Environmental term in Kazakh	Translation
Орман	Forest
Топырақ	Soil
Бұршақ	Hail
Түр	Species
Тұмша\смог	Smog
саябақ	Park

According to analysis that most of the environmental terms found on the Internet are complex and derived terms. Derived terms can consist of one lexical morpheme and

some bounding morphemes, such as, affixes, prefixes, suffixes and infixes. In the Table 3 we can see derived environmental terms.

Table 3. Derived environmental terms

Environmental term in Kazakh	Translation
Аэробты	Aerobic
Анаэробты	Anaerobic
Биофизикалық	Biophysical
Биотикалық	Biotic
Бореальді	Boreal
Ұяшық	Cell
Компосттау	Composting
Тұзсыздандыру	Desalination
Тұтынушылық	Consumption
Органикалық	Organic
Фотоэлектрлік	Photoelectric
Өнімділік	Performance
Тұздылық	Salinity
Шөгінді	Sediment
Тұрақтылық	Stability

Word combinations (several lexical unit) make up almost 57% of all analyzed words. Environmental terms can consist of two, three, four, five and six words. In the

formation of two word environmental terms it was noticed the following structure (Fig. 4):



Figure 4. The formation of two-word environmental terms

Two words environmental terms according to (A+N) structure and (N+N) structure (Table 4 and Table 5):

Table 4. Two words environmental terms according to (A+N) structure

Environmental term in Kazakh	Translation
Абиотикалық факторлар	Abiotic factors
Анаэробты организмдер	Anaerobic organisms
Аэробты организмдер	Aerobic organisms
Биогенді заттар	Biogenic substances
Биохимиялық цикл	Biochemical cycle
Биологиялық ресурстар	Biological resources
Биотикалық факторлар	Biotic factors
Биотикалық айналым	Biotic circulation
Биокосты заттар	Biocostal substances
Парниктік эффект	Greenhouse effect
Геотермалды сулар	Geothermal waters
Гидрохимиялық режим	Hydrochemical regime
Глобалді мониторинг	Global monitoring
Импактілі мониторинг	Impact monitoring
Қызыл кітап	Red List
Қышқыл жаңбыр	Acid rain
Қоректік тізбектер	Power chains
Озондық ойық	Ozone hole
Экологиялық жүйе	Ecological system
Экологиялық сараптама	Environmental expertise
Ядролық катастрофа	Nuclear catastrophe

Сіңіру шұңқыры	Absorption pit
Адаптивті сәулелену	Adaptive radiation
Баламалы отындар	Alternative fuels
Кері ағым	Reverse flow
Озық тәжірибе	Best practice
Биологиялық өнімділік	Biological productivity
Капиллярлық әрекет	Capillary action
Көміртегі айналымы	Carbon cycle
Көміртегі баламасы	Carbon equivalent
Көміртекті бассейн	Carbon pool
Хлорланған көмірсутек	Chlorinated hydrocarbons
Айналымы метаболизм	Rotational metabolism
Климаттық өзгеріс	Climate change
Өңделген материалдар	Processed materials

Table 5. Two words environmental terms according to (N+N) structure

Environmental term in Kazakh	Translation
Дақылдардың булануы	Evaporation of crops
Су өткізгіш	Waterproof
Бұрылу жылдамдығы	Turning speed
Күн энергиясы	Solar energy
Атом энергиясы	Nuclear energy
Өзен сағасы	River estuary
Аяқ ізі	Ecological footprint
Индикатор түрлері	Types of indicators
Өнімді басқару	Product management
Ресурстар ағыны	Resource flow
Ресурстар қарқындылығы	Intensity of resources
Топырақ кондиционері	Soil conditioner
Топырақ құрылымы	Soil structure
Топырақ суы	Топырақ суы
Дауыл суы	Storm water
Тұрақтылық келісімі	Stability agreement
Қалдықтар ағыны	Waste flow
Су айналымы	Water circulation
Су ресурстары	Water resources
Жел энергиясы	Wind energy
Ауыл шаруашылығы	Agriculture
Теңіз өмірі	Marine life
Көміртегі айналымы	Carbon cycle
Жер сәулесі	Earth rays

Ecological terms can also consist of three words in Kazakh language by the following structures: A+N+N (noun+adjective+noun) (Table 7); A+A+N (adjective+adjective+noun) (Table 8); N+N+N (adjective+noun+noun) (Table 6); N+A+N (noun+noun+noun) (Table 9).

Table 6. Three words environmental terms according to (A+N+N) structure

Environmental term in Kazakh	Translation
Озон қабатының бұзылуы	Ozone depletion
Алтернативті энергия көздері	Alternative energy sources
Теңіз деңгейінің көтерілуі	Sea level rise
Өсімдіктердің биоалуантүрлілігіне әсері	Impact on plant biodiversity
Теңіз тіршілігіне әсері	Impact on marine life
Жаһандық жылыну әлеуеті	Global warming potential
Ғаламдық мәселелер тізімі	List of global issues
Амфибия популяцияларының азаюы	Decrease in amphibian populations
Қашу климатының өзгеруі	Climate change
Қоршаған ортаның деградациясы	Environmental degradation
Климаттың өзгеруін азайту	Climate change reduction

Жалпы су падалану	General water use
Жалпы энергияны пайдалану	Total energy consumption
Үшінші құбыр жүйесі	The third pipeline system
Жаңартылған энергия сертификаттары	Renewable energy certificates

Table 7. Three words environmental terms according to (N+A+N) structure

Environmental term in Kazakh	Translation
Жердің энергетикалық бюджеті	Energy budget of the Earth
Биоалуантүрлілікке төнетін қауіптер	Threats to biodiversity
Ұшпа органикалық қосылыс	Volatile organic compound
Топырақтың ылғал тапшылығы	Soil moisture deficiency
Топырақтың жоғарғы қабаты	The top layer of soil
Топырақтың үйінді тығыздығы	Dump density of soil
Жер үсті ағындары	Surface currents
Топырақтың органикалық заттары	Soil organic matter
Топырақтың органикалық көміртегі	Soil organic carbon

Table 8. Three words environmental terms according to (A+A+N) structure

Environmental term in Kazakh	Translation
Тұрақты органикалық ластағыштар	Persistent organic pollutants
Қалпына келтірілген материалдар	Restored materials
Қалпына келтірілген су	Restored water
Қайта өңделетін заттар	Recyclable items
Қайта өңделген материал	Recycled material
Қайта өңделген мазмұн	Processed content
Стратосфералы күкүртті аэрозоль	Stratospheric sulfur aerosol
Қатты тұрмыстық қалдықтар	Solid household waste
Баламалы отынды қозғалтқыш	Alternative fuel engine
Қатты инертті қалдықтар	Solid inert wastes
Жалпы туу коэффициенті	Total fertility rate
Қатты өндірістік қалдықтар	Solid industrial waste
Стратегиялық экологиялық бағалау	Strategic environmental assessment
Септикалық ағынды сулар	Septic sewage
Меншікті жылу сыйымдылығы	Specific heat capacity

Table 9. Three words environmental terms according to (N+N+N) structure

Environmental term in Kazakh	Translation
Жел күшінің шкаласы	Wind force scale
Дыбыс күшінің шкаласы	Sound scale
Жәндіктер популяциясының азаюы	Decrease in insect population
Орманды қалпына келтіру	Reforestation

Four words environmental terms in Kazakh language (noun+adjective+adjective+adjective) (Table 10 and Table 11) are formed by two different ways: A+N+A+N (adjective+noun+adjective+noun) and N+A+A+A (noun+adjective+adjective+adjective).

Table 10. Four words environmental terms according to (A+N+A+N) structure

Environmental term in Kazakh	Translation
Қоршаған орта туралы ғылым	Environmental science
Жойылып бара жатқан түрлер	Endangered species
Жер жүйесін басқару жобасы	Land management project
Дүниежүзілік жасыл өсу институты	World Green Growth Institute
Халықаралық табиғатты қорғау орталығы	International Center for Conservation of Nature
Батыс Африканың жасыл актерлері	Green actors from West Africa
Дүниежүзілік өмірді қорғау одағы	World Union for the Protection of Life
Тірі табиғатты қорғау қоғамы	Wildlife Conservation Society
Орман сертификаттауын қолдау бағдарламасы	Forest certification program

There are very few examples of five- and six-word environmental terms in Kazakh language lexical system.

The following table shows some examples of five- and six- words term (Table 12).

Table 11. Five- and six-word environmental terms

Environmental term in Kazakh	Translation
Климаттың өзгеруі жөніндегі үкіметаралық панель	Intergovernmental Panel on Climate Change
Климаттың өзгеруі туралы мақалалар индексі	Index of articles on climate change
Тұрақты даму жөніндегі бүкіләлемдік іскерлік кеңес	World Business Council for Sustainable Development
Қоршаған ортаны қорғау жөніндегі интерматерикалық қауымдастық	Intercontinental Environmental Association

There are also complex terms that consist of two or more words. For example: Adjective + noun (Ecological efficiency); Noun + noun (Air pollution, water pollution); Noun + + noun (Balance of nature). There are also terms,

which consist of 3 or 4 words (Air quality criteria, Environmental termination of earthquake cliff). Abbreviations in Kazakh language make up almost 3% of the whole environmental terms (Table 12).

Table 12. Abbreviations

Environmental term in Kazakh	Translation
АЕМ – ауылдық елді мекен	rural settlement
КЭС – Күн электростанциясы	Solar power plant
СЭЖ – Санитарлық-эпидемиологиялық қызмет	Sanitary and epidemiological service
ҚТҚ – Қатты тұрмыстық қалдықтар	Solid household waste
ЖЭС – жылу электр станциясы	thermal power plant
ЖЭО – жылу электр орталығы	thermal power plant
ЭК – экологиялық кодекс	environmental code
ОҚТ озық қолжетімді технологиялар	advanced available technologies
ҮЕҰ үкіметтік емес ұйым	non-governmental organization
ЭБДҰ экономикалық ынтымақтастық және даму ұйымы	Organization for Economic Cooperation and Development
ГЭС гидроэлектрстанция	hydroelectric power station
СРК су ресурстары комитеті	water resources committee
ЭЖЖ электр жеткізу желілері	power transmission lines
АДБ Азия даму банкі	Asian Development Bank
АӨК Агроөнеркәсіптік кешен	Agro-industrial complex
АЭС Атом электростанциясы	Nuclear power plant
БиоЭС Биоэлектростанция	Bioelectric power station

In conclusion, there are interesting features in the formation of environmental terms in Kazakh language. Environmental terms directly connected with other terms that come from meteorological, agricultural, biological terminological system. During the translation of ecological terms, the absence of special dictionary may hinder the adequate translation. However, it is important to know the exact meaning of the word in order to understand the text.

Conclusions

During analyzing the environmental terms, it was found out that most of the terms are borrowed from other language like, English, French and Italian. Mostly they have Latin or Greek origin. It have also been analyzed 5500 environmental terms from the official documents on the Internet. They can be one-word terms, word combinations and abbreviations. One-word terms comprise 40% of the whole analyzed environmental terms. Word combinations make up almost 57% of all analyzed terms and only 3% comes to abbreviations. It is important to note that some English ecological terms may have

several meanings in Kazakh language during translation. For example: conservation (сақтау, қоршаған ортаны қорғау, консервациялау, консервация).

Linguists suggest the following translation transformations: substitution, analogy, calque, description method. Nowadays there are special terminological dictionaries, electronic libraries, translation programs and of course internet to facilitate the translation of different kinds of terms. Thanks to internet, anyone can search for and edit the information. Ecological issues are one of the serious and important issues in translation activity. For future specialists it is necessary to learn the scientific terms as well for successful translation.

Acknowledgements

None.

Conflict of Interest

None.

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Формування та проблеми перекладу екологічних термінів у лексичній системі казахської мови

Араїлім Куанишбаєва

Казахський університет міжнародних відносин та світових мов імені Аблай Хана
050022, вул. Муратбаєва, 200, м. Алмати, Республіка Казахстан

Валерій Махпіров

Казахський університет міжнародних відносин та світових мов імені Аблай Хана
050022, вул. Муратбаєва, 200, м. Алмати, Республіка Казахстан

Дархан Куанишбай

Університет імені Сулеймана Деміреля
040900, вул. Абилай Хана, 1/1, м. Каскелен, Республіка Казахстан

Анотація

Актуальність. У наш час у світі відбуваються зміни соціальних, економічних і політичних систем. Це призводить до появи нових термінів і понять. Також з'являються нові професії. Такі професії, як послідовний переклад, письмовий переклад, синхронний переклад, вимагають високої компетентності не тільки в рідній мові, але й у володінні іноземною мовою. Хороші перекладачі повинні володіти широким лексичним запасом не тільки іноземної, але й рідної мови.

Мета. Мета і завдання такого типу дискурсу зумовлені прагненням до точності та однозначності інтерпретації тексту, що реалізується через використання термінів.

Методологія. У статті розглядаються питання, що стосуються феномену екологічного дискурсу та його особливостей у лінгвістичному та перекладацькому аспектах.

Результати. Навколишнє середовище стає дуже важливою частиною життя сучасної світової спільноти. Екологічна проблематика проникає в комунікативну діяльність суспільства та впливає на його дискурсивний простір. Екологічна проблематика є надзвичайно важливою у нашому столітті. Це пов'язано з необхідністю захисту навколишнього середовища від руйнівних наслідків технічного прогресу.

Висновки. Науковці виокремили особливий тип дискурсу - екологічний дискурс. Науковий екологічний дискурс має ті ж особливості, що й науковий. У цій сфері необхідно провести багато досліджень, але, на жаль, у Казахстані вчені не приділяють достатньої уваги цій проблемі.

Ключові слова: світ; екологічний дискурс; технічний прогрес; екологія; суспільство.