

Research of Ecological Information Resources at the Present Stage

UDC: 930.85:504.03

DOI: <https://doi.org/10.15421/172495>**Sadigova Solmaz Azay**Ph.D., Assoc. Prof., <https://orcid.org/0000-0003-4780-0163>, solmaz_sadigova@bsu.edu.az*Baku State University (Baku, Azerbaijan)*

Abstract

Ecological information resources refer to the various types of data, knowledge, and materials related to the environment, ecosystems, and human interactions with nature. These resources are vital for informed decision-making, environmental protection, and sustainable development. With increasing global environmental challenges such as climate change, biodiversity loss, and pollution, the need for effective management, access, and utilization of ecological information has never been more critical. At the present stage, research into ecological information resources spans several areas, including data collection methods, technological tools, data sharing platforms, and the integration of ecological data into decision-making processes. The Decree of the President of the Republic of Azerbaijan on declaring 2024 the Year of Green World Solidarity in the Republic of Azerbaijan states: "The Republic of Azerbaijan contributes to the fight against the consequences of climate change. as a reliable and responsible member of the international community. One of the five national priorities of the socio-economic development of Azerbaijan until 2030 is defined as "A Country of Clean Environment and Green Growth". In accordance with this priority, work is underway to improve the environment, restore and increase greenery, ensure the efficient use of water resources and sustainable energy sources". Printed works play an important role in providing information in this area. In the article, primary sources of information on ecology, information about them and analysis of document flow are presented through diagrams prepared by the author. Secondary information resources include the documentary and information resource "Ecology of Azerbaijan" (2009), compiled by the Presidential Library of the Office of the President of the Republic of Azerbaijan within the framework of the "Year of Ecology", and the bibliographic index "Ecology of Azerbaijan". - for 10 years", compiled by the National Library of Azerbaijan named after M.F. Akhundov. Information is also given on the collection "For the Green World", prepared in 2024. The structure of each carrier, search capabilities and their role in providing information are highlighted. The article has conducted comprehensive research in this area, and the author has expressed his thoughts and opinions.

Keywords: green world, clean environment, ecology, environmental documents, information support

Дослідження екологічних інформаційних ресурсів на сучасному етапі

Садигова Солмаз*Бакинський державний університет (Баку, Азербайджан)*

Анотація

Екологічні інформаційні ресурси стосуються різних типів даних, знань і матеріалів, пов'язаних із навколишнім середовищем, екосистемами та взаємодією людини з природою. Ці ресурси життєво важливі для прийняття обґрунтованих рішень, захисту навколишнього середовища та сталого розвитку. Зі зростанням глобальних екологічних проблем, таких як зміна клімату, втрата біорізноманіття та забруднення, потреба в ефективному управлінні, доступі та використанні екологічної інформації ніколи не була такою критично актуальною. На сучасному етапі дослідження ресурсів екологічної інформації охоплює кілька напрямків, включаючи методи збору даних, технологічні інструменти, платформи обміну даними та інтеграцію екологічних даних у процеси прийняття рішень. Указ Президента Азербайджанської Республіки про оголошення 2024 рік Роком солідарності зеленого світу в Азербайджанській Республіці зазначає: «Азербайджанська Республіка робить свій внесок у боротьбу з наслідками зміни клімату, як надійний і відповідальний член міжнародної спільноти. Одним із п'яти національних пріоритетів соціально-економічного розвитку Азербайджану до 2030 року визначено «Країна чистого довкілля та зеленого зростання». Відповідно до цього пріоритету ведеться робота з покращення навколишнього середовища, відновлення та примноження зелених насаджень, забезпечення ефективного використання водних ресурсів та сталих джерел енергії». Важливу роль в інформуванні цієї сфери відіграють друковані твори. У статті представлені першоджерела інформації з екології, відомості про них та аналіз документообігу через підготовлені автором схеми. До вторинних інформаційних ресурсів належать документально-інформаційний ресурс «Екологія Азербайджану» (2009), складений Президентською бібліотекою Управління справами Президента Азербайджанської Республіки в рамках «Року екології», і бібліографічний покажчик «Екологія Азербайджану» – за 10 років», укладений Національною бібліотекою Азербайджану імені М. Ф. Ахундова. Також наведено інформацію про збірник "За зелений світ", підготовлений у 2024 році. Структура кожного носія, пошукові можливості та їх роль у наданні інформації висвітлено статті та комплексні дослідження в цій області щодо яких автор висловив свої думки.

Ключові слова: зелений світ, чисте довкілля, екологія, екологічні документи, інформаційне забезпечення

Стаття надійшла / Article arrived: 04.08.2024

Схвалено до друку / Accepted: 25.10.2024

Introduction.

The President of the Republic of Azerbaijan, Mr. Ilham Aliyev, signed the Order declaring 2024 as the "Year of Solidarity for the Green World" (Aliyev, 2023).

Back on May 10, 1997, Great Leader Heydar Aliyev said at the opening ceremony of the Heydar Aliyev Park on Jamshid Nakhchivanski Street of the 8th Kilometer settlement in the Nizami district of Baku: building gardens is an ancient tradition of our people"... (Aliyev, 2000). "The problem of greening the city in Baku, the problem of planting trees here has been one of the most important problems for me... In 1970, for the first time, I put forward the proposal to carry out greening works in Baku, we prepared a big program and started to green Baku rapidly, year by year" (Aliyev, 2000).

Information on ecology from documents, books, periodical press materials, etc. can be obtained.

Problem setting.

The role of bibliographic resources and books written on solidarity for a green world. The tasks of publishers and libraries in fulfilling this task. A study of the flow of printed documents related to the topic. (in the example of the National Library of Azerbaijan). Organization of effective use of bibliographic resources.

Research results.

Great Leader Heydar Aliyev said: Culture of each people always ennoble it, makes it known all over the world and enriches its morals" (Haydar Aliyev, 2003, p.154).

The flow of printed documents on the topic plays an important role. According to Professor Z. H. Aliyev, a document is considered as a source of knowledge and an object of bibliography based on its form and content. The content of the document as a source of knowledge, whatever is related to the field and subject affiliation, purpose and direction of the reader, price, essence, artistic level and other features of the information mentioned in the document. The form of the document is a separate work, collection of works, book, article, patent, translation, chapter, piece, etc. expressed with such concepts" (Aliyev, 2001, p. 68).

Resource is the source of stock of the different means. There are resources of adjoining information resources of raw material, energy, labor and finance in the modern society too. Another any resources from information resources disappears during use. For instance, fuel burnt and finishes, finance means is spent and. But information resources do not finish, they are a lot of to use. One of such information resources is socio-political resources. There are 2 kind of socio-political information resources: 1. Initial socio-political information resources; 2. Second socio-political information resources (Sadigova, 2016, p. 24).

Printed primary documents have a main role in development of socio-political information resources. In the primary sources printed about information resource 46 covers of the multivolume of "Our independence

is eternal" is necessary (1997-2013) (Sadigova, 2016, p. 24).

Scientific articles of the author of these lines on the importance of primary and secondary resources have been published at various times in prestigious magazines of local and foreign countries (Sadigova, 2016; 2018a).

The great leader Heydar Aliyev said: "Book publishing occupies a very prominent place in the culture, moral and social life of every country and people." First of all, each of us received education and knowledge only through books, we are prepared to live and act in life. Therefore, each of us is indebted to books. Both writing and creating books and publishing them is one of our main tasks. We must take all possible measures for this. As the president of the republic, I consider this one of my main duties" (Aliyev, 1997).

Documents on ecology primarily mean books and articles published in periodicals. We can refer to such books as sources related to the topic. For example, Nazim Huseynov and Jamal Huseynov's book "Azerbaijan's climate: air temperature regime" (2024), Sadiq Gurbanov's "Priority directions of environmental policy and green economy in the context of sustainable development" (Gurbanov, 2023).

Rashail Ismayilov's "Evaluation of the ecological safety of Azerbaijani rivers: on the example of rivers flowing directly to the Caspian Sea" (2021), Aynur Anserova's "Modern problems of human ecology" etc. can be an example (Ansarova, 2021).

In the electronic catalog of the National Library of Azerbaijan named after M. F. Akhundov, a chart of books on ecology is presented by year: It is possible to see the growth of documents (printed products) dedicated to this

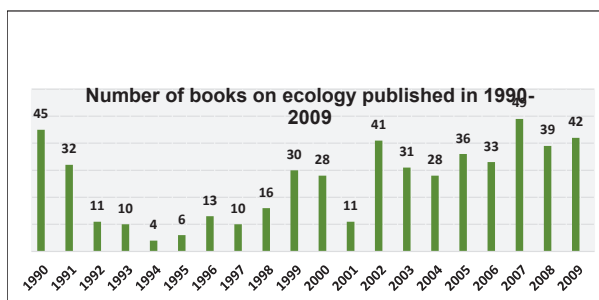


Diagram 1. The diagram was designed by the author.

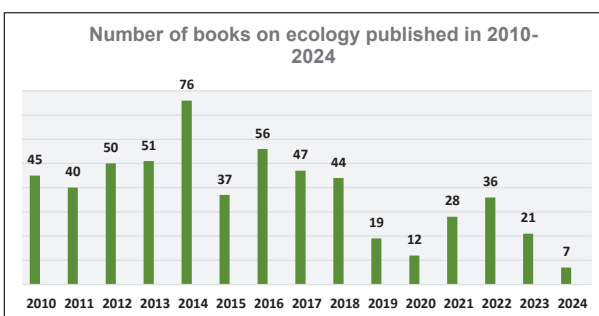


Diagram 2. The diagram was designed by the author.

topic by means of the 6 diagrams given below. As the number of documents increases, it is important to rework and process them as secondary sources. Therefore,

printing of bibliographic materials is needed to use the sources promptly and fully. Libraries have a great responsibility in this area (Diagrams 1-6).

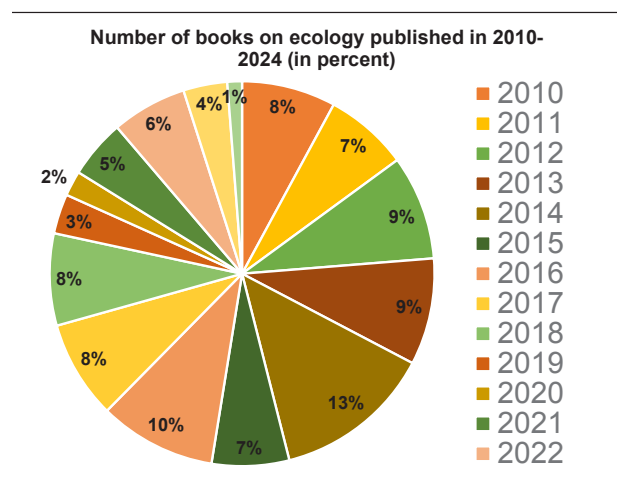


Diagram 3. The diagram was designed by the author.

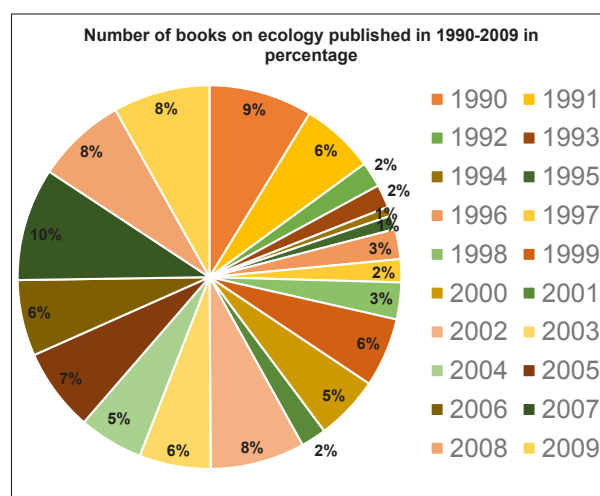


Diagram 4. The diagram was designed by the author.

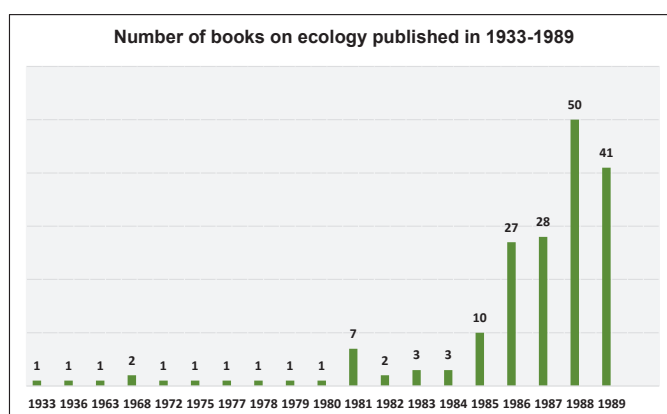


Diagram 5. The diagram was designed by the author.

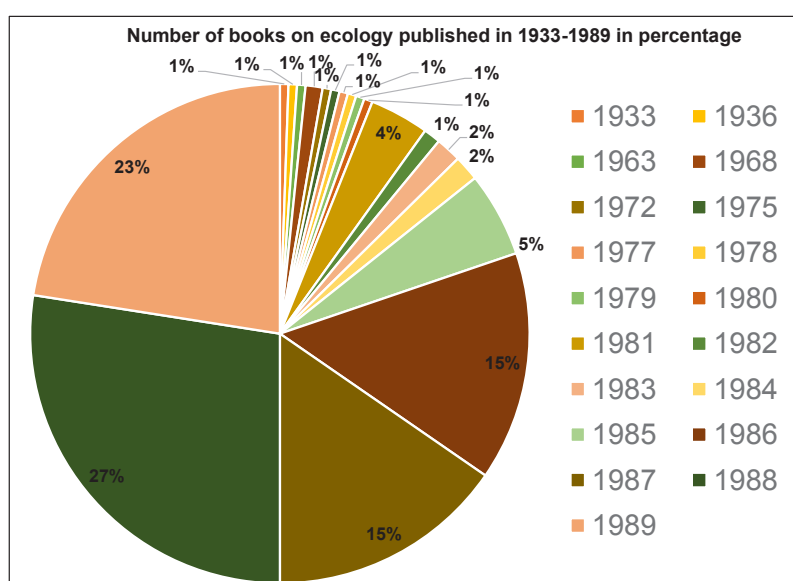


Diagram 6. The diagram was designed by the author.

As can be seen from the diagrams, the flow of documents devoted to environmental problems has increased in recent years. This also plays an important role in providing information to consumers.

As for periodical press works, "Solidarity for the sake of a green world will be shown in Azerbaijan this year" by Flora Sadigly (Azerbaijan. - 2024.- February 6, № 25.- p. 11). In the article, the US economy and geopolitics expert, representative of the World Economic Forum, Kyle Ina, the goals of holding COP 29 in Baku, the views of Pakistani economist, international expert on strategic communications, COP 28 participant Qaiser Nawab on Azerbaijan's comprehensive approach to the transition to "green energy" given.

Ilham Aliyev's "green world" mission of Rashad Bakhshaliyev: At the COP29 summit, the world will witness Azerbaijan's 35 model of fighting the global crisis (Azerbaijan. - 2024.- February 24, №42.- p. 6.). In the article, on the eve of COP 29, one of the most prestigious international events in the world, 10 thousand foreign representatives will come to our country, Baku will once again attract the attention of the world in two weeks, the composition of the Organizing Committee for the summit, ensuring full gender balance in the Organizing Committee, COP 29 will be discussed. it is noted that modern challenges, innovation issues will be widely discussed, and maximum inclusiveness of the Organizing Committee of the main

idea is ensured. The article also mentions the issues of Azerbaijan's new agenda being "green energy" and the fact that Azerbaijan is one of the countries with high potential for renewable energy sources.

Sevinj Garayeva's "Important measures are being taken to restore the ecosystem in our liberated territories" (525th newspaper. - 2023.- September 23.- p. 23.). In the article, in the direction of environmental protection and efficient use of natural resources in our liberated territories, "Transformation of our world: Agenda in the field of sustainable development until 2030", "Socio-economic development strategy for 2022-2026" adopted within the framework of "Azerbaijan 2030: National Priorities for socio-economic development" and "On the Great Return to territories freed from occupation of the Republic of Azerbaijan" I State Program", "State Program of socio-economic development of the regions of the Republic of Azerbaijan in 2019-2023", "Measure Plan for 2020-2022 on ensuring efficient use of water resources", "Geological study of the subsoil and mineral you can get information about the measures implemented within the framework of the State Program for the years 2020-2024 on the efficient use of the raw material base and other programs, etc.

In order to help provide information on ecology, a document-information resource called "Ecology of Azerbaijan" and consisting of five chapters was prepared by the Presidential Library of the Affairs Department of the President of the Republic of Azerbaijan (Ecology of Azerbaijan, 2010).

In the first chapter called "General information" materials are given in response to the question "What is ecology". The main directions of the environmental policy implemented in our country have been analyzed, and the description of ecological-geographical zoning has been reflected. In the "Biodiversity" section of that chapter, the state of biodiversity protection in Azerbaijan is investigated. The bibliographic resource provides information on 13 state nature reserves, mud volcano group nature reserve, 8 national parks, and 23 state nature reserves. The second chapter of the document-information resource is called "Environmental problems". In this chapter, sections related to environmental problems of the Absheron Peninsula, the Caspian Sea, rivers, as well as atmospheric pollution, desertification, soil erosion, global warming, and protection of the ozone layer are given. In addition to these, information on the pollution of rivers passing through the territory of Armenia with harmful waste, the destruction of biodiversity in the occupied territories, and the burial of radioactive waste in those territories is presented under the heading "Ecological terrorism".

In the first section of the third chapter of the bibliographic resource called "Ecological enlightenment", an electronic "Ecological dictionary" is presented, which reflects more than 1000 terms and concepts related to this field. Biographical and bibliographic information about

60 environmental scientists of Azerbaijan is collected in the "Our environmental scientists" section. The section called "Ecological calendar" presents a calendar of events and significant days related to ecology and the environment, both internationally and nationally. In the fourth chapter of the electronic resource called "Legislative base", official documents on ecology and environment have been collected since the Republic of Azerbaijan gained state independence until now. The official documents include the full texts of 2 National Programs, 1 National Strategy, 4 State Programs, 83 laws of the Republic of Azerbaijan, 72 Decrees and 67 Orders signed by the President of the Republic of Azerbaijan, 174 decisions of the Cabinet of Ministers and other central executive bodies, as well as 20 International Conventions and Protocols to which our country has joined. has been done.

The last - 5th chapter of the document-information resource is called "Electronic resources". In the section called "Environmental policy of the President of the Republic of Azerbaijan, Ilham Aliyev", the full texts of the materials of the consultations held by the head of state related to ecology, his speeches at the events he participated in, interviews, and his opinions on ecology have been collected. In the "E-books" section of the chapter, electronic versions of 12 selected books on ecology in the Library's collection are presented to users.

The electronic text of more than 150 current scientific-journalistic articles published in the Azerbaijani, Russian and English languages in environmental periodicals is collected in the "Articles" section. In the "Bibliography" section, bibliographic descriptions of 220 books related to ecology in Azerbaijani, Russian and English languages, as well as about 500 selected articles from periodicals received in the library since 2004 are given.

In the "Websites" section, the addresses of the websites of the official institutions implementing the environmental policy of the state, as well as the non-governmental organizations performing the function of environmental awareness are placed.

Document-information resource "Ecology of Azerbaijan" posted on the website of the Presidential Library of the Affairs Department of the President of the Republic of Azerbaijan is prepared in three versions - in Azerbaijani, English and Russian languages and is periodically updated.

The "Geology scientific bibliography" department of the National Library of Azerbaijan named after M.F. Akhundov published the bibliographic material "Ecology of Azerbaijan – in 10 years" covering the years 1997-2008. Materials in the bibliographic resource are provided in Azerbaijani and Russian languages.

In the bibliography, "Legislation of the Republic of Azerbaijan on ecology and nature protection", "Deliberation dedicated to the improvement of the ecological situation in our country", "Books, abstracts, dissertations and periodical press materials on the

ecology of Azerbaijan" by years, "Water basins", "Ecology of the Caspian", "Pollution and protection of the atmosphere", "Radiation safety", "Pollution and protection of land, useful areas", "Forests", "Global environmental problems: Climate changes, fight against desertification", "Biodiversity: Red book, reserves, plants and animals the world", "Agriculture, industry, construction and transport", "Environmental education and sustainable development of culture" sections are placed in alphabetical order. In general, the materials consist of three chapters.

At the end of the index, for ease of use, an auxiliary device called "Alphabetical Index of Authors" is provided. One of the importance of providing "authors' alphabetical index" is that it helps to search for authors from bibliographic sources, on the other hand, statistical analysis is carried out according to the number of works written by each author on that topic and the ranking of authors is determined (Valiyeva, Bashirova, Misirova, Tahirov, & Safaraliyeva, 2009).

The National Library of Azerbaijan named after M. F. Akhundov prepared a digest called "For the sake of a green world" in 2024 from the secondary resources. Compiled by Tarana Jafarova, specialized editor Professor Karim Tahirov, editor Aygun Kochak. In this 40-page document, the Decree of the President of the Republic of Azerbaijan on the declaration of 2024 as the "Year of Solidarity for the Green World" in the Republic of Azerbaijan is given. After the order, in the article entitled "From the Compiler", the establishment of the funds, the years covered, etc. information has been provided. In the article entitled "From the Compiler", the purpose of the digest and its literal meaning are indicated, and it is mentioned that it means summary, collection in translation from English. It should be noted that the articles published in periodical press pages in 2020-2024 were examined and delivered to users through selection. A short abstract is given about each article. This was created in order to help the information users' needs and information needs related to the topic (Sadigova, 2018b).

In recent years, a number of normative legal acts on ecology, nature protection and efficient use of natural resources have been adopted, and important practical steps have been taken in the field of nature protection and improvement. It is of great socio-economic importance to take urgent measures to protect nature, prevent the decline of biological diversity and environmental pollution in the country.

In order to help provide information, the Republican Youth Library named after Jafar Jabbarli compiled a bibliographic review called "Ecology and Environment" on the occasion of June 5 - World Environment Day and posted it on the library's official website (Sadigova, 2018).

Literature in the review is grouped in Azerbaijani and Russian. In the annotation of literature, in addition to the content of the book, its main merits, the readership it is

addressed to, etc. is displayed. Readers are also informed about electronic resources.

Novelty.

The National Library of Azerbaijan published "Ecology of Azerbaijan: bibliography" dedicated to the "Year of Solidarity for the Green World" in 2024. The bibliographic index with bibliographic descriptions of 7,289 sources was compiled by the employees of the "Regional Studies" bibliographic resource creation department of the National Library of Azerbaijan and published under the scientific editorship of Professor Karim Tahirov. The bibliographic index, which consists of 1004 pages, is the second fundamental bibliographic resource dedicated to ecology, dedicated to the "Year of Solidarity for the Green World" by the National Library. In the bibliography, environmental protection, efficient use of water resources, protection of the ecological environment of the Caspian Sea, waste management, mitigation of the negative effects of climate change, modernization of observation and monitoring systems, etc. the mentioned books, monographs and rich materials printed in periodicals, textbooks, collections were reflected. Bibliographic materials in Azerbaijani, Russian and English languages are intended for ecologists, biologists, political scientists, scientific researchers, librarian-bibliographers and a wide readership.

At the beginning of the bibliography, the Decree of the President of the Republic of Azerbaijan on the declaration of 2024 as the "Year of Solidarity for the Green World" in the Republic of Azerbaijan is given. It is noted in the order that "One of the five national priorities for socio-economic development of Azerbaijan until 2030 is defined as "Country of clean environment and green growth". In accordance with that priority, work is being done to improve the environment, restore and increase greenery, and ensure efficient use of water resources and sustainable energy sources. Compared to the base year (1990), Azerbaijan has set a target of reducing greenhouse gas emissions by 35 percent by 2030, and by 40 percent by 2050. Freed from occupation, Karabakh and East Zangezur, as well as the Nakhchivan Autonomous Republic, have been declared green energy zones. Environmental protection is a priority in the large-scale restoration and reconstruction process in liberated areas. In those areas, innovative approaches such as "smart city" and "smart village" are applied, and the ecosystem is restored" (Tahirov, 2024).

It should be noted that the bibliographic index contains the speech of President Ilham Aliyev at the opening ceremony of the XI Global Baku Forum on the topic "Restoration of the broken world".

Conclusions.

Materials in the bibliography are grouped in the following order; Part I "Official documents", Part II "Books, monographs", Part III "Dissertations and abstracts", Part IV "Articles published in journals and periodicals" (they are also divided into "General

materials", "Biological diversity in Azerbaijan", "Flora and Fauna", "Forests", etc.), Part V - official documents in Russian, Part VI - books, monographs, Part VII - dissertations and abstracts, Part VIII - articles published in periodicals and collections, Part IX - Books in English, monographs". Part X is called "Azerbaijani ecology in world national and university libraries". This is an innovation in the arrangement of the bibliographic index. Providing such a section in the bibliographic materials prepared by our National Library in recent years plays an important role in the provision of information to field specialists, as well as scientific researchers, with the resources available in the world's national and university libraries in the global information space. Part XI is auxiliary indicators. Here are "Books and monographs index", "Authors index", and at the same time, these indicators are Russian and English language books and monographs. The primary and secondary resources we are talking about are excellent information resources for the participants of a prestigious event like COP29 held in our country.

Let's note that the number of such sources is increasing and helps to provide information to experts in the relevant field. Secondary bibliographic resources are also emerging to ensure prompt use of the document flow, to obtain the necessary information quickly and completely. An analysis of several such resources is given, and their role in information provision is shown. In addition to all this, the staff of the National Library of Azerbaijan prepared an electronic database called "Solidarity for the Green World" and presented it to users online. "Official documents", "International ecological conventions", "Environmental policy in the Republic of Azerbaijan", "Ecosystem in territories freed from occupation", "Public unity of ideas", "Green marathon", "Ecological calendar", "Protection of the ecosystem" in the electronic database. Publications" and a number of materials were reflected. We hope that in the future there will be a need to create a fundamental bibliographic index of works on ecology. Fundamental bibliographic works play an important role for field experts in conducting their scientific research.

REFERENCES

- Aliyev, I. (2023). *Decree of the President of the Republic of Azerbaijan on the declaration of 2024 as the "Year of Solidarity for the Green World" in the Republic of Azerbaijan*. Ilham Aliyev, President of the Republic of Azerbaijan, Baku, December 25. Retrieved from <https://president.az/az/articles/view/62737>
- Aliyev, Z. (2001). *General bibliography*. (Textbook). Baku: Baku University Publishing House.
- Ansarova, A. (2021). *Modern problems of human ecology*. Baku: Tabib.
- Valiyeva, M., Bashirova, H., Misirova, G., Tahirov, K. (Ed.), & Safaraliyeva, G. (Ed.). (2009). *Azerbaijan ecology - in 10 years: Bibliography*. Azerbaijan National Library name of M. F. Akhundov.
- Tahirov, K. (Ed.). (2024). *Azerbaijan ecology: bibliography. The staff of the Department of Bibliographic Resource Creation for Regional Studies at the National Library of Azerbaijan*. Baku.
- Ecology of Azerbaijan (2010). *Document-information resource of the Presidential Library prepared by employees*. Baku. Retrieved from <http://eco.preslib.az/>
- Gurbanov, S. H. (2023). *Priority directions of environmental policy and green economy in the context of sustainable development*. Scientific ed. A. Muradov. Baku.
- Khalafov, A., & Sadigova, S. (Eds.). (2003). *Heydar Aliyev: Bibliographic reference book*. Baku: Baku University Press.
- Sadigova, S. A. (2016). *Socio-political information resources: Methodical instructions*. Baku.
- Sadigova, S. A. (2018a). Initial resources on socio-political information. *European Journal of Humanities and Social Sciences*, 6, 60-62. Retrieved from http://ppublishing.org/upload/iblock/404/EJH-6_2018-cor4.pdf
- Sadigova, S. A. (2018b). *National bibliography of Azerbaijan in the global information space: Monograph (dedicated to the 100th anniversary of the establishment of Baku State University)*. Baku, ADPU publishing house.
- Sadigova, S. A. (2021). Information supply of state bodies: modern condition and perspectives. *The 6 th International scientific and practical conference "World science: problems, prospects and innovations" (February 23-25, 2021)*, (pp.89-98). Perfect Publishing, Toronto, Canada. ISBN 978-1-4879-3793-5. Retrieved from <https://sci-conf.com.ua/wp-content/uploads/2021/02/world-science-problems-prospects-and-innovations-23-25.02.2021.pdf>
- Sadigova, S. A. (2021). Modern forms and methods of bibliographic activity in libraries. *Scientific Journal "Archivist"*, 7(2), 12-16. ISSN 2524-0935.
- Aliyev, H. (2000). *Our Independence is Eternal: Book. 9. March 1997 - May 1997: Speeches, statements, interviews, letters, reports, appeals, decrees*. Baku: Azernashr.
- Aliyev, H. (1997). *Our independence is eternal: Book. 3 December 1994 - June 1995: Speeches, speeches, statements, interviews, letters*. Responsible for the release: R. Mehdiyev, H. Orujov. Baku: Azernashr.