

# Sustainable Demoethical values as tools for social transformation in interaction with the components of demography, democracy, and demoeconomics

Rinat A. Zhanbayev<sup>1,\*</sup>, Muhammad Irfan<sup>2</sup>, Anna V. Shutaleva<sup>3</sup>, Daniil G. Maksimov<sup>4</sup>, Zhuldyz Yessimova<sup>5</sup>, Kakhaberi Gabelashvili<sup>6</sup>, Dinara Dauletaliyeva<sup>7</sup>, Saule S. Sagintayeva<sup>8</sup>

<sup>1</sup>National Engineering Academy of the Republic of Kazakhstan, Almaty 050010, Kazakhstan

<sup>2</sup> Business School, Shandong Management University, Jinan 250357, China

<sup>3</sup> Department of Philosophy, Ural Federal University named after the first President of Russia B.N. Yeltsin, 620002 Ekaterinburg, Russia

<sup>4</sup> Department of Public Service and Personnel Management, Udmurt State University, 426034 Izhevsk, Russia

<sup>5</sup> Department of Kazakh Linguistics, Al-Farabi Kazakh National University, Almaty 050040, Kazakhstan

<sup>6</sup> Almaty University of Power Engineering and Telecommunications, Almaty 050013, Kazakhstan

<sup>7</sup> University of Friendship of People's Academician, Shymkent 160000, Kazakhstan

<sup>8</sup> Non-profit joint-stock company, Abylkas Saginov Karaganda Technical University, Karaganda 100027, Kazakhstan

\* Corresponding author: Rinat A. Zhanbayev, zhanbayevrinat@gmail.com

#### CITATION

Zhanbayev RA, Irfan M, Shutaleva AV, et al. (2024). Sustainable Demoethical values as tools for social transformation in interaction with the components of demography, democracy, and demoeconomics. Journal of Infrastructure, Policy and Development. 8(12): 8729. https://doi.org/10.24294/jipd.v8i12.8729

#### ARTICLE INFO

Received: 22 August 2024 Accepted: 8 October 2024 Available online: 5 November 2024

#### COPYRIGHT



Copyright © 2024 by author(s). Journal of Infrastructure, Policy and Development is published by EnPress Publisher, LLC. This work is licensed under the Creative Commons Attribution (CC BY) license. https://creativecommons.org/licenses/ by/4.0/ Abstract: This study aims to evaluate theories and ideas about social values and determine the high quality of virtues that potentially change social practices, thinking, self-awareness, and behavior of the individual and society. The relevance of the study of value components is determined by the fact that such values as "spirituality and morality", "responsibility", "justice", "rationality", and "security" are capable of capturing the greatest value of many interests, which allows for the integration of society. An experimental study was conducted using sociological research methods based on developed questionnaires with questions touching on the parameters of sustainable development of society, determining the high quality of virtues and behavior of the individual and society. The study was conducted from May to June 2023 (N = 1387). Based on Demoethical values, special attention is paid to global problems related to climate change and inefficient use of energy and water resources, thereby achieving the Sustainable Development Goals. As a result of the study, Demoethical values are revealed in interaction with the economic components of demography, democracy, and demoeconomics as a tool for social transformation, as they shape the harmonious vision of the world, human behavior, decisions, and relationships with other people.

**Keywords:** Demoethical values; spirituality and morality; responsibility; justice; rationality; security; sustainable development; social transformation; demoeconomics; demography; democracy

### **1. Introduction**

A highly valued spiritual state of society necessarily requires a carefully planned and thoughtful government policy aimed at developing values related to human spirituality and morality. This policy should become an integral part of the strategy of social transformation, including positive changes in culture, education, and upbringing. With the rapid development of information technology and digital communications, public institutions are faced with new challenges that require updating approaches and teaching methods.

With the growth of information flow and the diversity of information sources, enormous opportunities arise for accessing information, communication, and knowledge exchange, on the other hand, it is becoming increasingly difficult to distinguish between the reliability and quality of content, which pushes for the need to develop media education skills (Kirillova and Shlykova, 2022; Kirillova, 2021; Tomyuk, et al., 2021). Media education is aimed at developing critical thinking, information literacy, and the ability to analyze and evaluate information received from various media sources, thereby education is designed to prepare the younger generation for responsible participation in the information society and successful adaptation to rapidly changing technological requirements (Dahri et al. 2023; Nicolaou, 2021; Nicolaou et al., 2022; Putilova et al., 2023; Tahat et al. 2023), which means it contributes to the formation of a conscious and ethical use of media content. A key role in the development of modern society should be played by public policy aimed at developing values related to spirituality and morality since only through conscious attention to these aspects can society improve the education system, helping the younger generation develop moral and spiritual principles. Ethical principles play a key role in connection with the development of digital technologies, as they guide people towards correct and moral behavior when using digital resources. Following ethical principles helps create a responsible and trusted information environment and prevent the spread of misinformation, inappropriate content, and violations of privacy.

In the modern social system, with its environment and attitude toward human life, new opportunities are emerging with the help of AI to acquire new knowledge and skills in education, social, natural, and human sciences, culture and information, and communication technologies, and to influence thinking processes, interaction, and human decision making. In this circumstance, virtue ethics is of particular importance (Baker, 2018; Hursthouse, 1999; Zagzebski, 2012). Virtue ethics, which is based on moral norms and values, plays an important role in social relations and human behavior. Thus, Hursthouse (1999) shows how virtue ethics can provide guidance to action and identify moral dilemmas and the moral significance of emotions.

Virtue ethics is based on the principles of integrity, fairness, cooperation, tolerance, and respect for others. Virtue ethics plays an important role in the field of artificial intelligence and its interaction with society. The use of AI must comply with ethical principles to ensure a beneficial impact on human society (Mittelstadt, 2019; Li et al., 2023; Panesar and Panesar, 2020). Of particular interest is the study of Floridi and Cowls (2019), who identified five basic ethical principles that artificial intelligence should have:

- Beneficence (the use of AI should be aimed at creating a positive contribution to the quality of life and contribute to the improvement of society as a whole);
- Non-harm (ethical restrictions and responsibilities for AI should be an integral part of its development to avoid potential negative consequences for humans and society);
- Autonomy (AI must be able to act with a certain degree of independence and without the constant need for human intervention, however, on the other hand, control over the actions of AI is necessary to avoid sudden and undesirable results;

- Fairness (AI should not allow discrimination or bias when making decisions),
- Explainability (AI must be able to justify and explain its decisions and actions, to achieve transparency and awareness of the impact of AI on people and society).

The first four ethical principles that Floridi and Cowls (2019) describe are basic principles. But the fifth principle, explainability, is additional and carries epistemological and ethical implications and answers the questions: "How does it work?" and "Who is responsible for how it works?" In general, the ethical principles of beneficence, non-maleficence, autonomy, justice, and explainability are determined by the goal of creating a theory of ethical principles based on which the interaction of AI and nature and society occurs - this is compliance and ensuring the ethical, responsible, and transparent nature of AI, which can help minimize risks and the potential negative consequences of AI.

The approach of Oxford University Internet Institute professors Jakob Mökander and Luciano Floridi is an ethics-based audit mechanism (Mökander and Floridi, 2023). They propose three additions that can help bridge the gap between principles and practice in AI ethics:

- Ethical auditing can improve the quality of decision-making, increase user satisfaction, unlock growth potential, ensure the creation of legislation, and relieve human suffering;
- Highlights current best practices to support the design and implementation of ethical auditing. Ethical auditing should be an ongoing and constructive process, consistent with public policy and encourage ethically desirable behavior;
- 3) Identifying and discussing the limitations associated with ethical auditing. Only by understanding and considering these limitations can ethical auditing promote the ethical consistency of AI while ensuring the full economic and social benefits of introducing it into the public life of society.

Similar issues are discussed in articles by scientists Taddeo et al. (2021), who believe that defense organizations are actively developing and applying artificial intelligence to ensure superiority. However, there are no ethical guidelines for its use for defense purposes. They propose five ethical principles specifically designed to address the ethical issues raised by the deployment of AI in defense:

- 1) Reasonable and redefinable use;
- 2) Fair and transparent systems and processes;
- 3) Moral responsibility of a person;
- 4) Meaningful human control;
- 5) Robust artificial intelligence systems and related guidelines to promote the ethical use of artificial intelligence for national defense purposes.

We believe that in society all relationships should be built on higher values; state, public, international organizations, and international experts are also needed, such as the European Union High Expert Group on Artificial Intelligence and the United Nations Sustainable Development Goals, which would not only regulate but also contributed to the targeted development of higher values, taking into account the different interests/uniqueness of different nationalities characteristic of AI. Capasso and Umbrello (2022) confirmed this idea. An example of this design approach is the

use of Amazon Alexa Healthcare skills, which illustrate how designers and engineers can begin to orient their designs and technologies towards achieving social benefit.

Advances in medicine and health technology lead to improvements in diagnosis, treatment, and healthcare delivery, but advances in technology provide important ethical considerations (de Pagter, 2018; Weaver et al., 2021; Yassi et al., 2013). A team of researchers, Yassi et al. (2013), look at the ethical issues that researchers from countries working in poorer countries face when conducting health research. The authors put these strategies into practice by reviewing the various recommendations and principles specific to health research conducted in poorer countries. The researchers concluded that ethical review panels should consider not only rights and dignity but also advocate for justice and the development of local capabilities. The authors recommend that researchers from more distant countries collaborate with allies due to less influence, local knowledge, cultural characteristics of the countries, community participation, and economic responsibility.

Fritzsche and Oz (2007) explore the relationship between personal values and ethical decision-making in organizations. Managers respond to ethical dilemmas in a situational manner based on past research. In addition, personal values in nine five types of ethical dilemmas were examined using partial least squares (PLS) analysis. The study found that altruistic values have a positive influence on these decisions, while the values themselves have a negative influence.

Crossan et al. (2013) note that they have developed a comprehensive model of ethical decision-making based on the integration of virtues, values, and characteristic strengths. While the consequential ethical framework has dominated in the past, scholars now propose using a virtual ethical perspective to correct the shortcomings of existing models. The proposed approach is based on the idea that characteristic strengths and motivational values can interact with a coherent structure to facilitate such decision-making in organizations. Thus, the presented observation model not only takes into account the research of situational determinants but also includes a virtual orientation to these decision rationales.

According to Bardi and Schwartz (2003), there is a relationship between various values and behavior, the values of stimulation and tradition are strongly related to behavior, and the values of security, conformity, achievement, and virtues are weakly related. Norms also influence the relationship between values and behavior. There is a continuing connection between behavior, values, and their overall structure, which may be a consequence of the motivational conflicts of nature and preferences described by value theory.

Astrachan et al. (2020) believe that the inclusion of morally binding values such as democracy, and more broadly, spiritual ones, fundamentally change decisionmaking and ethical behavior in organizations. Values-based family businesses provide space for family beliefs, business, and decisions. Religious family firms are laboratories of ideas and behavior based on values and faith. They provide a context for re-evaluating the relationships between these beliefs, decision-making processes, and behavior in business organizations.

A study by Ufuk and Özgen (2001) conducted among 220 married entrepreneurs in Ankara found that work hurts family life but has a positive impact on social and economic aspects. There are conflicts in the roles of entrepreneur, housewife, mother, and wife due to limited market demand, family expectations, and physical fatigue.

Summers (2017) shows that the apparent rationale we come up with for ourselves and others is often a rationalization. We act based on agents, inclinations, stereotypes, emotions, and neurobiology. This is a proposal for moral progress through interaction with reasons. However, rationalization can be sincere and contribute to the development of the whole world. Similar conclusions can be drawn regarding moral progress in groups of people.

The French philosopher and publicist A. Glyuksmann asks about the problem of evil, considering it central to the modern person (The New ethics, 1991). In an interview with the journal "Voprosy Filosofii" in 1991, he emphasized that modern technology, which has destructive capabilities, destroys established ideas about its "purity". He points to the need to develop new ethical values that can respond to the challenges arising from these changes. A. Glyuksmannom talks about the problem that evil becomes more undeniable than good since it is much easier to determine what a person should not do than what he should do. Evil is a more "universal and omnipresent force" capable of uniting people more than good (The New ethics, 1991).

In connection with modern realities, a special place is occupied by the appeal to traditions as the basis for the sustainable development of modern society. Yuan et al. (2022) discuss Confucian leadership ethics in China, which differs from the Western model of ethical values. The ethical principles and values represented in leadership practice and theory in China are informed by indigenous Chinese wisdom embedded in their traditions and China's collective psychology. Confucian ethics includes virtues such as benevolence, righteousness, and ritual propriety. It emphasizes the importance of self-improvement and moral charisma of a leader, as well as his ability to influence an organization through the formation of an ethical culture. The authors of the article argue for an in-depth discussion of Confucian ethics in China to develop and improve ethical leadership in the country.

Questions of ethics and morality confront people every day. Values, at their core, are principles or beliefs that influence people's thinking, behavior, and orientation in the world. In this regard, ethics includes both a deontological component and a teleological component (Gasper, 2008; Goulet, 1960, 1971, 1974, 1988, 1997). The deontological component of the ethical model reflects the principles of obligation and duty. In this model, values are derived from a set of universal principles that must be upheld regardless of consequences. An example of such a principle is the categorical imperative of I. Kant, which contains the requirement to treat people as valued subjects, and not as means to achieve goals. The deontological component of the development of values is based on duty and moral law, which initiates an awareness of the need to follow ethical standards regardless of the circumstances (Ellerman, 1988; Geiger, 2008). The teleological component of the ethical model focuses on the consequences of actions. In this model, values are defined based on their ability to lead to beneficial consequences or the achievement of an ultimate goal.

Both deontological and teleological components are important in discussing issues of social development (Cowen and Shenton, 1996; Crocker, 2008; Crocker, 1991). For example, the development of a modern economy involves the efficient use of resources to create wealth, but this process must take place while considering the

social, ethical, and moral aspects of people's lives (Bosi, 20124; Canto-Sperber and Ruwen, 2010; De Rosa, 2018), which correlates with the goals of sustainable development. Modern economics recognizes that resources should serve the wellbeing of society, puts people at the center, and calls for equitable distribution of wealth, protection of the environment, and promotion of the development of all members of society. In addition to social justice, the ethical approach also emphasizes education and human development, which contributes to the creation of culturally rich and socially responsible members of society (Baimuratov et al., 2020; Shutaleva et al., 2022; Bakeeva and Biricheva, 2021; Ma and Guo, 2023). The ethical approach also supports environmental sustainability, since the use of natural resources should be carried out taking into account their conservation and renewal, which stimulates the emergence and development of innovative methods of production and consumption aimed at reducing environmental impact and ensuring environmental sustainability (Brigida et al., 2024; Brigida et al., 2019; Malyukova et al., 2023; Yaitskaya et al., 2023).

Ethical values and principles must be an integral part of economic and social thinking and practice. However, achieving this state requires the participation of all levels of society, namely government agencies, businesses, the academic community, and citizens. At the same time, it is important to understand that economic growth and social development should not be carried out at the expense of the destruction of nature and the depletion of the planet's resources; they must take into account the needs and interests of current and future generations, which is a significant idea for the formation and development of environmental thinking (Borojević et al., 2023; Ha et al., 2023; Jaberi, 2022; Rahman et al., 2023).

In this regard, important values of environmental thinking are responsibility, justice, and solidarity, which implies awareness of personal and collective responsibility for the conservation of nature and resources cooperation and support between people, and the desire to achieve common environmental goals (Elshaer et al., 2023; Gajović et al., 2023; Lin and Dong, 2023; Rahman et al., 2023). Of course, ecological thinking is anthropocentric, that is, it recognizes the values and importance of humans in the Earth's ecosystem, but only the combination of this worldview with biocentrism and an ecosystem approach can promote the interests and well-being of all living organisms, not just humans. Thinking and practice based on ethical and environmental values can be achieved through appropriate political and economic decisions, as well as through education and increasing environmental awareness of society (Doğru and Yüzbaşıoğlu, 2023; Putilova et al., 2023; Shutaleva, 2023; Uda and Basrowi, 2024). To do this, it is necessary to develop and support innovative approaches and technologies that promote sustainable development and environmental conservation (Alraja et al., 2022; Ardoin et al., 2020; Al-Aomar and Alshraideh, 2019; Gomes and Lopes, 2024; Golik et al. 2023). However, modern information civilization has its special vision of the world, and its principles for shaping the future, which leads to the definition of this type of civilization as a "third-wave civilization", which is characterized not only by the speed but also by the quality of changes that prepare "new norms of behavior" (Tul'pe, 2022).

In a study previously conducted by the authors of this article, "Demoethical Model of Sustainable Development of Society: A Roadmap towards Digital Transformation" (Zhanbayev et al., 2023), demoethical components such as education, upbringing, reason, knowledge, science, and honest work were studied and identified. These components made it possible to identify values that correspond to the sustainable development of society. The main one is the concept of a "virtuous individual" or member of society, which is formed through the following factors:

- Education and upbringing refer to the holistic development of the individual through the development of the mind, the acquisition of knowledge, and the application of scientific principles;
- Integration of education and upbringing, a well-developed mind, the acquisition of knowledge, scientific principles, and honest work make a certain contribution to sustainable development;
- Honest work plays a key role in identifying and embodying the values appropriate for a virtuous person, ruler, city, and sustainable development.

Values shape a person's way of being. Despite the existence of various forms of differentiation of values and their relative nature, the people themselves and their lives have the highest and absolute value. Following the paradigm of sustainable development of society, human value should be perceived only as a value goal, but never as a value means. The importance of studying value aspects is a critical juncture in which managers and employees must act virtually and correctly, weighing the interests of society and the individual. The innovation of this study is in the creation of modern Demoethical values and the formation of the qualities of modern virtue that transform every member of society. The application of the concept of the value paradigm of demoethics as a tool for the sustainable implementation of the interaction of the components of demography, democracy, and demoeconomics ensures the transformation of new social practices. The purpose of the study is to develop universal paradigms of "Demoethics values" for various components of demography, democracy, and democconomics, which will make a great contribution to the development of sustainable development goals, the result of which will ensure an effective increase in the level of quality of life and competitiveness of the population.

### 2. Materials and methods

The first stage of this study involved a review and analysis of scholarly articles and monographs related to the topics closely aligned with the present investigation. This undertaking allowed for the identification of key questions concerning sustainable development within the context of existing connections between various values, societal behavior, and ethical considerations of virtues established within the social fabric.

The next stage of this study involved the use of a questionnaire (Google Forms) to collect data, which was then processed using a quantitative empirical method. The questionnaire was designed to investigate the socio-ethical aspects of sustainable development of society and served as the initial experimental basis for the development and determination of universal paradigms of Demoethical values. Additionally, the research includes an experiment applying demoethical value paradigms to the components of demography, democracy, and demoeconomics. The qualitative method employed in the study describes the role of the universal paradigm

of Demoethical values, such as "Spiritual Morality", "Responsibility", "Justice", "Rationality", and "Security", which are experimentally applied to the components of demography, democracy, and demoeconomics. The application of the universal paradigm of Demoethics values in economics helps to effectively improve the quality of life and competitiveness of the population.

The sociological study was conducted from May to June 2023 in the Republic of Kazakhstan and the Russian Federation (in the Udmurt Republic) to identify modern values and determine the preferences of members of society about the qualities of worthy virtues emerging in society. The study involved 826 people from the Republic of Kazakhstan and 561 people from the Russian Federation.

The study was conducted in an online format in Kazakh, Russian, and English languages. The survey was conducted using Google Forms, with questions first asking about age (survey participants were required to confirm that they were over 18 years old to exclude minors from the study, whose consent to the survey must be provided by their parents or guardians) and, secondly, confirmation of consent to participate in the survey. The author's questionnaire was used to determine and form Demoethical values based on modern guidelines and preferences of members of society about the qualities of worthy virtues that are being formed in society. During the study, respondents were asked several questions devoted to assessing and measuring the socio-ethical aspect of issues of sustainable development of society, based on which the transformation of social values in the regions at a given point in time is analyzed. Participants were asked to choose from one to three options or add their own if they were not satisfied with the options that were proposed. Respondents had unlimited time. The participation of respondents in the study was carried out voluntarily.

This study presents the part of the questions devoted to the socio-ethical aspect of sustainable development of society.

The questionnaire identifies the following questions that relate to the socioethical aspect of sustainable development of society:

- What qualities are characteristic of a virtual person? (choose one to three answer options);
- Please continue the statement: "Values are formed..." (choose one to three answer options);
- 3) What values are currently most important to you? (choose one to three answer options);
- 4) In modern society, what virtuous people do you know? (choose one to three answer options). Before moving on to processing and confirming answers using economic and statistical methods, it is necessary to study the data obtained for possible questions in the area of the issues we are studying.

Before moving on to processing and confirming answers using economic and statistical methods, it is necessary to study the data obtained for possible questions in the area of the issues we are studying.

Data analysis involves a primary description of the data, which allows you to solve the following problems:

- 1) Classify variables (type of variables);
- 2) Summarize the variables being studied;
- 3) Visualize the received information in the form of various diagrams.

The obtained data were checked for correctness of entry and cleared of values that would contain empty values but are important for carrying out measurement procedures.

Limitations—This study considered and presented the results concerning the coverage of the above issues of socio-ethical aspect of sustainable development of society, more in-depth results of the study will be presented in our further empirical research in stages, as the purpose of the study is to examine the attitude of members of society to the process of formation of a virtuous person, ruler, city on the example of the Republic of Kazakhstan and the Russian Federation.

### 3. Results

The study employs empirical general scientific methods through surveying, which is facilitated by collecting a large amount of data, part of which is dedicated to the socio-ethical aspects of sustainable societal development.

- The survey participants are residents of the Republic of Kazakhstan. The predominant category that was surveyed consisted of students from higher educational institutions in major cities (such as Nur-Sultan, Almaty, and others). The number of respondents is 826, among which 48.79% are women (403 individuals) and 51.21% are men (423 individuals). The distribution chart by gender is presented in Figure 1a. The average age of the respondents is 23.9 years (SD = 8.64), as shown in Figure 2a. The questionnaire included questions and answer options that comply with the legislation of the Republic of Kazakhstan.
- 2) The participants of this study were recruited from the territory of the Udmurt Republic, a subject of the Russian Federation. Students from universities and individuals involved in the educational process were predominantly included. The sample size is 561, with a mean age of 31.1 years (SD = 13.2). 57.75% identified themselves as male and 42.25% as female (Figure 1b and Figure 2b). Participation in the study was voluntary. The questionnaire included questions and answer options that comply with the legislation of the Russian Federation.



Figure 1. Distribution of respondents by gender: (a) in the Republic of Kazakhstan; (b) in the Russian Federation.

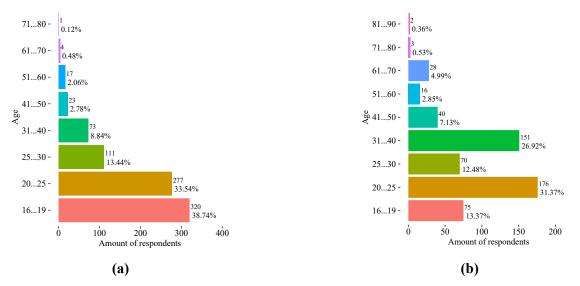


Figure 2. Distribution of respondents by age: (a) in the Republic of Kazakhstan; (b) in the Russian Federation.

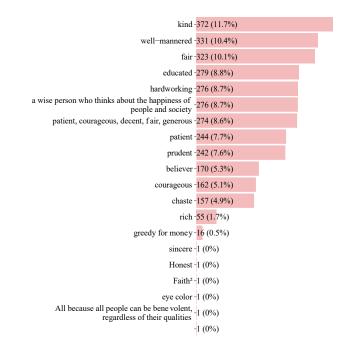
Questions 3 to 18 included direct response options regarding value preferences and orientations in the Republic of Kazakhstan and the Russian Federation. Let's consider and compare the answers to the questions provided by the respondents. The question "What qualities are characteristic of a virtuous person?" included response options regarding value aspects. Based on the obtained data, it can be stated that people primarily evaluate based on the presence of qualitative aspects, rather than possession of anything material (**Figures 3** and **4**).

**Figure 3** shows the respondents' attitudes toward the concept of qualities that are characteristic of a virtuous person, using the example of the Republic of Kazakhstan. The significance of this question lies in providing an understanding of how people perceive a virtuous person and what qualities they prioritize. It is worth noting that the graph includes all the questions included in the survey, and most of them provide insights into the qualities that are characteristic of a virtuous person.

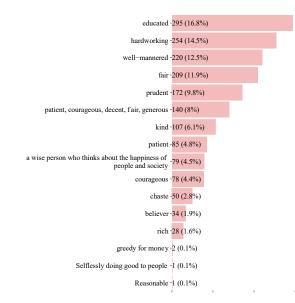
The qualities such as "kind"—11.7%, "well—mannered"—10.4%, "fair"— 10.1%, "educated"—8.8%, "hardworking"—8.7%, "a wise man who thinks about the happiness of people and society patient, courageous, decent, fair, generous"—8.6%, "patient"—7.7%, "prudent"—7.6%, "believer"—5.3%, "courageous"—5.1%, "chaste"—4.9%, "rich"—1.7% are considered the most important indicators. The rest, including "greedy for money"—0.5%, "sincere", "honest", "faith", "eye color", "all because all people can be benevolent, regardless of their", "qualities", offer alternative perspectives but do not reflect the evaluation of the majority of society.

**Figure 4**, like the previous **Figure 3**, illustrates the respondents' attitudes towards the concept of qualities that are characteristic of a virtuous person, using the example of the Russian Federation. The significance of this question lies in providing an understanding of how people perceive a virtuous person and what qualities they prioritize. It is worth noting that the graph includes all the questions included in the survey, and most of them provide insights into the qualities that are characteristic of a virtuous person.

Similar to the respondents in the case of the Republic of Kazakhstan, the answers can be grouped into three main categories. The first group includes qualities such as "educated"—16.8%, "hardworking"—14.5%, "well-mannered"—12.5%, "fair"— 11.9%, "prudent"—7.6%, "patient, courageous, decent, fair, generous"—8%, "kind"—6.1%. The second group consists of responses that make up less than five percent and includes indicators such as "patient"—4.8%, "a wise person who thinks about the happiness of people and society"—4.5%, "courageous"—4.4%, "chaste"— 2.8%, "believer"—1.9%, "rich"—1.6%. The last group of responses, such as "greedy for money"—0.1%, "selflessly doing good to people"—0.1%, and "reasonable"— 0.1%, represent a small number of answers that reflect a less exalted worldview of the respondents.



**Figure 3.** Answers to the question "What qualities are characteristic of a virtuous person?" (the example of Kazakhstan).

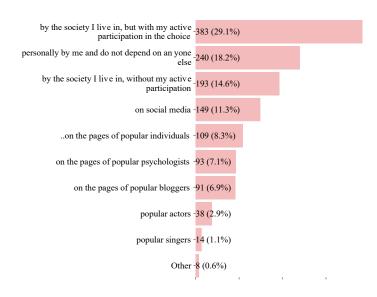


**Figure 4.** Responses to the question "What qualities are characteristic of a virtuous person?" (the example of Russia).

**Figure 5** reflects the modern preferences for value formation among members of society (respondents) and the proportion of importance of modern values for respondents (some members of society) using the example of the Republic of Kazakhstan. The question aimed to obtain responses that indicate which values are important in society. It should be noted that the response "by the society I live in, but with my active participation in the choice" stands out and accounts for 29.1% of the responses, highlighting the importance of individual participation in shaping societal values.

Other significant responses include "personally by me and do not depend on anyone else"—18.2%, "by the society I live in, without my active participation in the choice"—14.6%, "on social media"—11.3%, "on the pages of popular individuals"—8.3%, "on the pages of popular psychologists"—7.1%, and "on the pages of popular bloggers"—6.9%. It is important to note that a significant percentage (14.6%) of respondents indicated that they do not have their own opinions and rely solely on public opinion. We hypothesize that this is due to a lack of knowledge and information in shaping the societal structure in that segment, which requires further research.

Therefore, it is necessary to educate people so that they can influence the formation of societal values, as they are part of society. The remaining responses, such as "popular actors"—2.9%, "popular singers"—1.1%, and "other"—0.6%, are less popular. The influence of popular actors and singers on value formation raises some questions, one of which is that according to the age distribution, over 45% of respondents are under 25 years old. This indicates that individuals themselves strive to influence values rather than borrowing them from well-known individuals.



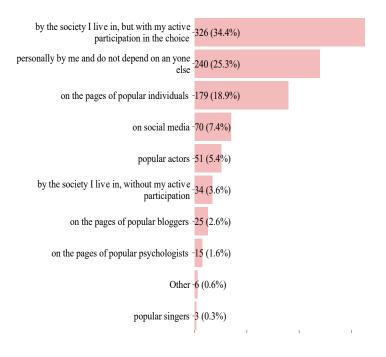
**Figure 5.** Responses to the question on value formation methods (the example of Kazakhstan).

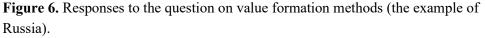
**Figure 6** illustrates the contemporary preferences for value formation among members of society (respondents) and the proportion of importance placed on modern values for respondents (some members of society) using the example of the Russian Federation, specifically in one of its regions, the Udmurt Republic. The objective of

the question, similar to that in the case of Kazakhstan, was to obtain responses that reveal which values are deemed important in society.

It is noteworthy that, similar to the response in Kazakhstan, the top answer with 34.4% is "by the society I live in, but with my active participation in the choice, indicating the significance of one's opinion and individual influence on the formation of societal values. The second group includes responses such as "personally by me and do not depend on anyone else"—25.3%, "on the pages of popular individuals"—18.9%, "on social media"—7.4%, "popular actors"—5.4%, "by the society I live in, without my active participation"—3.6%, and "on the pages of popular bloggers"—2.6%.

It should be mentioned that more than 25% form their values independently of others, although this question requires further analysis since an individual is a social being and is influenced by society or close individuals in any case. However, unlike Kazakhstan, popular actors have a more significant impact on value formation. Less significant factors that shape individual values were also mentioned, including "on the pages of popular psychologists"—1.6%, "other"—0.6%, and "popular singer"—0.3%.





**Figure 7** reflects the contemporary preferences for value formation among members of society (respondents) and the proportion of importance placed on modern values for respondents (some members of society) using the example of Kazakhstan. The interest of this question lies in its ability to determine the most significant values in contemporary society. As seen in **Figure 7**, the majority of the values presented in the survey are considered important, and there is no dominant answer that stands out as significant for the respondents.

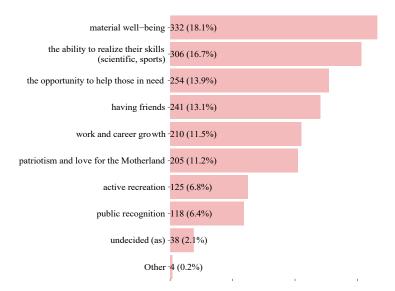
Values such as "material well-being"—18.1%, "the ability to realize their skills (scientific, sports)"—16.7%, "the opportunity to help those in need"—13.9%, "having

friends"—13.1%, "work and career growth"—11.5%, and "patriotism and love for the Motherland"—11.2% are considered the most important. The second group of values ranges from 5 to 10% and includes "active recreation"—6.8% and "public recognition"—6.4%.

The third group of values is considered the least important among the majority of respondents: "undecided"—2.1% and "other"—0.2%. In conclusion, according to **Figure 7**, it can be noted that for the majority of respondents in Kazakhstan, important values include "material well-being", "the ability to realize their skills", and other indicators.

The reason for the choice of these indicators is due to the active work of public policy aimed at the sustainable development of society, which is one of the important aspects of sustainable development goals, in which the roles of "material security (well-being)" of a person, "ability to realize their skills (scientific, sports)", "ability to help those in need", "having friends", "work and career growth", "patriotism and love for the country" and other value orientations are the most important, as the priority of the strategy of public policy direction

This once again proves the presence of transformation in society and the beginning of the global renewal of the system of values that guided mankind in its life and confirms the need to improve new values, which is the relevance of our study, which stimulates the development of new priorities in achieving sustainable development goals.

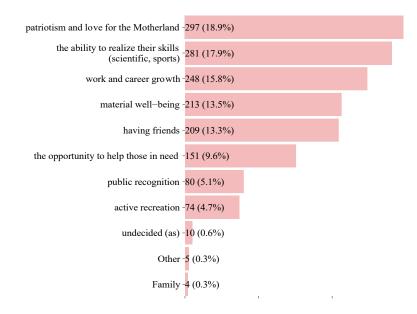


**Figure 7.** Responses to the question "Which values are currently most important to you?" (the example of Kazakhstan).

**Figure 8** reflects modern preferences of value formation of members of society (respondents) and the share of importance of modern values for respondents (some members of society) in the example of Russia. This question gives answers about the most important values in modern society. It should be noted that such values as "patriotism and love for the Motherland"—18.9%, "the ability to realize their skills (scientific, sports)"—17.9%, "work and career growth"—15.8%, "material security—13.5%", "having friends"—13.3%, "the opportunity to help those in need—9.6%",

"public recognition"—5.1%, "active recreation"—4.7% are important values among respondents, while "undecided (as)"—0.6%, "family"—0.3%, "other"—0.3% are less important.

According to the results of **Figure 8**, which visualizes the respondents' answers in the example of Russia (the Udmurt Republic region), one peculiarity can be distinguished, which differs from the answers received in Kazakhstan. Patriotism and love for the Motherland are in the first place, which can speak about the great cohesion of the society of all ages in the current environment when elements reflecting the cohesion of the society are put in the first place.



**Figure 8.** Answers to the question "What values are the most significant for you at the moment" (the example of Russia).

Moreover, the respondents were asked: "In modern society, what virtuous people do you know?" The answers of the respondents of the two countries differed but a similar trend was observed, namely, the heads of state of the two countries, i.e., the Presidents of the Republic of Kazakhstan and the Russian Federation, are in the first place, followed by persons known to the whole world. We believe that the reason for the choice of heads of state is determined, firstly, by the life position of both personality and available leadership qualities, and secondly, by the trust of the people in the policy pursued by the leaders of states.

In the example of respondents of Kazakhstan, the choice of the President lies in his versatile knowledge, multifaceted experience, and great skill in diplomacy and politics, which allows him to be a worthy personality, a worthy leader, and to meet the qualities of virtue. In addition, the modernization underway in the country proves the existence of a comprehensive renewal of the entire sphere of state life. The results are confirmed by the referendum held in Kazakhstan on 20 November 2022, and the extraordinary election of the President of the Republic of Kazakhstan, which demonstrated universal support for the new initiatives of the President (The results of the early elections of the President of the Republic of Kazakhstan, 2022) based on the development strategy, which was embedded in the statement from the President's speech "The trust of the people is the highest value that cannot be compared with anything".

In the example of Russian respondents, the choice of the President lies in the political and economic affairs conducted by him (National Projects of Russia–2023: results and expectations, 2024). The trust of the Russian people in the President is confirmed by sociological surveys, for example, by the All-Russian Center for the Study of Public Opinion (VTSIOM) (Rating of trust in politicians, 2024), in whose ratings the President takes the first place.

Based on the above described, it should be noted that as reference points an individual chooses a person who is often encountered in the information space and is distinguished by qualities close to the person. These are famous politicians, actors, athletes, and, to a lesser extent, surrounding people. However, it should be noted that the availability of a ready answer has a great influence on the respondents' answers, i.e., there is no need to write your answer if there is an opportunity to choose a ready answer. This aspect can be seen in the results of questions 4 and 15, which were devoted to the choice of famous people.

Based on the results of the study and the raised questions in the context of the examination of the public's attitude towards the process of values formation, the necessary qualities that a virtuous person should possess, as well as the results of previously conducted successful preliminary experimental research within the framework of the article "The correlation between demographic processes and Demoethical values of sustainable societal development in the context of climate and energy migration and water scarcity" (Zhanbayev et al., 2023), it was possible to identify such universal paradigms of Demoethical values as "Spiritual Morality," "Responsibility," "Justice," "Rationality", and "Security". The conceptual approach used not only allows us to evaluate social ethics as a multifactorial phenomenon but also ensures the formation of new social practices, changes in human thinking and self-awareness, as well as the behavior of individuals and society.

The applicability of the universal paradigm of Demoethics values is confirmed by the earlier experimental study within the topic of the article (Zhanbayev et al., 2023), in which the interrelationships between demographic processes in the context of the world's most acute problems related to water resources, climate, energy migration, and Demoethical values as a tool for transforming the sustainable development of society were studied. This study is a prerequisite for the study of sustainable development issues in the context of the components of demography, democracy, and demoeconomics.

The structural socio-economic changes that are taking place in society have a great impact and value implications on people's lives (Juárez and Gasper, 2021; Simchenko et al., 2023; Kerimov, 2023). Currently, the world is striving to move from a system that relies on the production of material values to one that is centered on information. The changes occurring in society arise from a variety of mutually influencing factors, leading to the emergence of new norms and values for humanity. They form the need for renewal and rethinking, the formation of new tools in the interaction of people, and new approaches to the emerging moral aspects and problems (Bakeeva and Biricheva, 2021; Kerimov, 2022, 2023), which address and reveal the essence of such changes and their relationship with ethics. Ethical issues require a

person to make a conscious choice and recognize the priority of value attitude to the world. The value system determines the actions that become "right" or "wrong", therefore, the value approach has a significant impact on people's behavior (Begum et al., 2022; Jordan and Kristjánsson, 2017; Xu et al., 2023).

Determination of values by people plays an important role in realizing the essence of life. People define their life positions, agreeing or going against the culture, rules, and norms that exist in a particular society, which are also the most important characteristics of the definition of value. Based on them, value systems are formed that correlate with the aspects of good and bad, right, and wrong that are generally accepted for a particular society.

The different cultural characteristics of societies are reflected in unique attitudes towards values. Values are mostly subjectively and individually experienced by people, which makes possible a certain degree of flexibility and adaptation of people in different situations and contexts (Toffler and Toffler, 1995). Today it is possible to openly express personal values, which are important when analyzing the daily life of the population of countries. That is why we propose the following universal paradigms of Demoethics values for the different components.

- Demography (sustainable growth of the country's population is achieved through consistent increase in birth rate and life expectancy, as well as reduction of mortality);
- Democracy (sustainable development of society and building a sustainable political structure of the state is possible only by utilizing the values of Demoethics);
- Demoeconomics (sustainable development of social interests of members of society and the state is aimed at achieving the goals of each individual and taking into account what development goal is acceptable to all stakeholders. This direction includes not only economic growth but also the provision of people's basic needs, development of social spirituality, responsibility, justice, rationality, and security).

Thus, Demoethics values paradigm will contribute greatly to the development of sustainable development goals and, as a result, ensure the effective development of the quality of life and competitiveness of the population (**Table 1**).

**Table 1.** Demoethics value paradigm as a tool for the sustainable realization of the interaction of demography, democracy, and demoeconomics components.

Ν	Demoethics values	Characteristics of Demoethics values
1	Spiritual morality	Spirituality and morality are the key factors that determine the priorities of modern society and ensure the sustainability of its existence, initiate socio-cultural modernization, and further development. The construction of the spiritual and moral system is based on the processes characteristic of the modern development of society. However, national traditions are also the basis for the formation of this system. Traditions are capable of spiritual enrichment, accepting certain innovations that do not contradict, and sometimes fully correspond to their values and principles. This process can be seen as the emergence of new social ties and as a condition for the modernization of society.
		<ul> <li>A) Demographic component</li> <li>The aspect of "spiritual morality" has an impact on the following demographic indicators of society:</li> <li>Fertility. In societies where life and family are highly valued, fertility rates are known to be higher. The influence of religious norms can also be an additional factor that stimulates fertility;</li> <li>Marriage and divorce rates. Spiritual and moral values embedded in society influence the decision to marry, support the family, and contribute to its longevity;</li> </ul>

Ν	<b>Demoethics values</b>	Characteristics of Demoethics values
		<ul> <li>Increased longevity. Thanks to traditions of caring for elderly parents and respect for age, life expectancy is increasing;</li> <li>Mortality. Negative ethical practices, such as drug use or unfavorable working conditions, can lead to high mortality and population decline;</li> <li>Migration. Many people are willing to emigrate from a country with unacceptable moral or spiritual conditions to a more suitable society.</li> </ul>
		<ul> <li>B) Democratic component</li> <li>Spiritual morality is an important aspect of human and social behavior and in the decision-making system. The spiritual and moral basis of a society influences various spheres of society:</li> <li>the legislative system of that society (a prime example is the prohibition of racism and discrimination, which has its foundation in the universal spiritual principles of equality and justice);</li> <li>politics (citizens included in the political process have and express their beliefs and values, which allows the legislature to make a more just and public interest-oriented decision);</li> <li>business practice (value norms promote responsible business behavior and reduce corruption in business);</li> <li>Example: Articles that protect and respect universal spiritual norms were added to the German Constitution after World War II to ensure a stable and democratic society because the Nazi regime rejected universal spiritual and moral values, which provoked human rights violations as well as total control of society.</li> </ul>
		<ul> <li>C) Demoeconomic component The aspect of "spiritual morality" plays an important role in the sustainable development of society in the economic sphere, contributing to the development of the following areas: <ul> <li>Acceleration of technological progress and economic growth (search for compromises, fair distribution of resources and wealth);</li> <li>Globalization and integration of different cultures and values (the system of interaction between different cultures and societies should take into account values, diversity of cultures and promote social harmony and </li> </ul></li></ul>
1		<ul> <li>sustainability);</li> <li>Environmental issues (conscious attitude towards the world around us);</li> <li>Economical education also implies the development of "spiritual morality";</li> <li>The development of spiritual values such as responsibility, honest labor, business, and social responsibility contributes to the formation of a moral foundation in demoeconomy. This builds trust, reduces corruption,</li> </ul>
	Spiritual morality	<ul> <li>and improves business ethics;</li> <li>A society based on spiritual and moral values includes the notion of mutual responsibility of all members of society to each other and future generations. This idea fosters solidarity and cooperation, which are key aspects of successful economic development and social well-being.</li> </ul>
		Examples: In Japan, where spiritual and moral values such as respect for elders and honesty have traditionally been emphasized, there is a high degree of social cooperation and trust, which contributes to successful economic and business development. In Iceland, spiritual and moral aspects play an important role in the economic education of society. Key values, such as responsibility to nature, have become fundamental principles that influence economic decision-making
		<ul> <li>and the creation of sustainable and efficient economic modeling.</li> <li>The "Spiritual-Moral" values in the sphere of energy and water resources are connected to the awareness of the importance of adhering to ethical principles and a responsible attitude towards the environment. In the energy sphere, spiritual-moral values can include:</li> <li>1) Ensuring equal access to energy resources for all segments of the population, taking into account the needs and capabilities of each individual;</li> </ul>
		<ol> <li>Preservation of natural resources, reducing the use of fossil fuels, and development of alternative energy sources aimed at reducing the negative impact on the environment and biodiversity;</li> <li>Taking responsibility for the choice of energy technologies, assessing and mitigating potential risks and consequences of their use, for example, in the case of nuclear energy.</li> </ol>
		<ol> <li>In the sphere of water resources, spiritual-moral values can include:         <ol> <li>Respect for water resources as a vital element for all forms of life on Earth, considering global redistribution and availability of clean drinking water for all people.</li> <li>The need for collaboration and joint efforts for the management and conservation of water resources,</li> </ol> </li> </ol>
		<ul> <li>especially in regions with limited water supplies and potential conflicts over their use.</li> <li>3) Rational use of water resources, reduction of water losses and pollution, taking measures to preserve biodiversity in aquatic ecosystems.</li> <li>The awareness of these spiritual-moral values helps society develop sustainable and responsible approaches to</li> </ul>
		the use and management of energy and water resources, contributing to the preservation of nature and human well-being.

well-being.

Ν	<b>Demoethics values</b>	Characteristics of Demoethics values
		<ul> <li>Parents' responsibility: Parents have a great responsibility for the upbringing and development of their children, which includes not only providing education and physical development but also developing the following ethical principles, values, and skills: <ul> <li>skills of caring for neighbors;</li> <li>environmental responsibility;</li> <li>responsibility for one's actions, decisions, and choices;</li> <li>respect for one's homeland and country and one's traditions.</li> </ul> </li> <li>A) Demoeconomic component</li> </ul>
	Responsibility	The principle of social responsibility of the state and the business community is fundamental in ensuring sustainable development. The active participation of state and quasi-state companies, the business community, and the emerging responsible society in achieving the goals of sustainable development contribute to the development of the economy, social welfare, and environmental protection (Zhanbayev et al., 2023; Zhanbayev et al., 2023). The assumption of social responsibility by the state, business, and individuals is a necessary step in the realization of the UN-proclaimed goals in the field of sustainable development.
		<ul> <li>The role of the value of "responsibility" in the sphere of energy and water resources includes the following:</li> <li>1) Environmental conservation. Responsible use of energy and water resources is linked to adherence to ecological principles. Energy and water processes can have a significant impact on the environment. Responsibility in this area includes the use of environmentally friendly and energy-efficient technologies, as well as considering and reducing negative impacts on nature.</li> </ul>
2		<ol> <li>Sustainable development. Responsibility in the sphere of energy and water resources is also linked to the principles of sustainable development. People who value responsibility strive to strike a balance between the needs of the present generation and the ability of future generations to meet their needs. This means that resources should be used in a way that preserves their availability for future generations.</li> <li>The value of responsibility plays an important role in ensuring sustainable, efficient, and environmentally friendly use of energy and water resources, which are crucial for the development of society and the well-being of humanity.</li> </ol>
		<ul> <li>B) Demographic component</li> <li>"Responsibility" is a factor that affects the demographics of a society in the following points:</li> <li>Birth rate (financial stability, access to services, physical and psychological well-being are important factors for people who decide to give birth or adopt a child);</li> </ul>
		<ul> <li>Mortality rate (nutrition, health care, and quality education affect mortality rates and the overall vitality of a society);</li> <li>Migration rates (people, government, and organizations can invest in the development of the region in which</li> </ul>
		they live, making it a more attractive place to live). Examples: in developing countries, numerous non-profit organizations (NPOs) and government programs are working to develop responsible population principles to help people make responsible decisions about family planning and childbearing.
		In some societies, birth and family growth are perceived as indicators of status and family well-being. In others, where women's role in society is significant and the institution of the family is challenged, fertility is lower because many women are afraid to have children in the absence of financial and social support, or they rely primarily on their strength and think about what she can pull.
		<ul> <li>C) Democratic component</li> <li>Democracy requires:</li> <li>responsible and effective governance from the government;</li> </ul>
		<ul> <li>respect for the rights and freedoms of citizens;</li> <li>active participation of citizens in the political life of the country.</li> </ul>

Ν	<b>Demoethics values</b>	Characteristics of Demoethics values
3		Justice is a category belonging to the group of social virtues. The prevalence of law and a unified legal framework for different societies, and nations living in one state makes it possible to create a harmonious social space. Today, justice is also the category that challenges world processes that do not take into account the national, traditional, religious, linguistic, and historical identity of the population living in a particular territory. The concept of social justice establishes a system of relations between an individual and society. Social justice is measured by criteria such as distribution of wealth, equal opportunities, and social privileges, which determines such features as equality, protection of rights and freedoms, equality of opportunity, transparency, and openness.
		A) Democratic component The principles of justice in a democracy include a single legal space for all groups of the country's population, protection of the rights and freedoms of all citizens, equality of all citizens before the law, and respect and transparency of decision-making processes.
	Justice	<ul> <li>B) Demographic component</li> <li>Demographic equity is an important aspect of social justice and is often the focus of government policies and programs at the national level to build a more equal and just society.</li> <li>Several demographic trends have emerged during the Covid-19 pandemic that can be considered in the context of demographic justice:</li> <li>Fertility: Many countries have seen a decline in their birth rate during the pandemic. This may be explained by stress, economic uncertainties and restrictions, and the immediate effects of the disease on pregnant women. This aspect affects demographic justice since a decrease in the birth rate can lead to increased demographic inequality and an increase in the problem of population aging.</li> <li>Mortality: Covid-19 caused more serious consequences in older people and people with certain medical conditions than in younger and healthy people. This has led to a significant increase in mortality in these population groups. Demographic justice requires ensuring access to health care, support, and protection for vulnerable groups. Migration: The pandemic has also affected international and domestic migration flows. The introduction of restrictions on the movement of people and the closure of borders led to a decrease in migration. At the same time, vulnerable groups such as refugees and migrants found it more difficult to access health care and social protection. This contributed to the violation of demographic justice.</li> <li>Overall, demographic equity has been at risk during the Covid-19 pandemic due to declining fertility rates, increased mortality among vulnerable groups, and restrictions on migration. Ensuring equal opportunities and protection for all groups of the population has been an important aspect of demographic justice in the field of demographic processes during the Covid-19 pandemic.</li> </ul>
		<ul> <li>C) Demoeconomic component</li> <li>Increasing the level of economic awareness and responsibility is interconnected with the concept of fairness.</li> <li>One of the main factors in the development of human capital and the innovativeness of the economy is equal access to education and knowledge.</li> <li>Examples:</li> <li>The government's program of equitable distribution of educational opportunities, such as public schools and higher education institutions with reduced tuition for the poor, improves the educational level and economic potential of the population.</li> <li>Government social programs, such as unemployment benefits and pensions, are designed to provide a minimum standard of living and reduce the negative effects of economic injustice. These programs help maintain consumer demand because community members have a minimum income to meet basic needs.</li> </ul>
		The role of the value of "justice" in the energy sphere is as follows: The concept of energy justice provides an analytical framework for assessing the consequences of decision- making in the context of energy transitions. Energy justice is a new concept that shares philosophical similarities with environmental justice and encompasses the distribution of costs and benefits, opportunities, recognition, and participation in environmental processes. In particular, energy justice requires that all people have access to safe, affordable, and sustainable energy, providing a basis that can be applied to decision-making processes. Energy justice is often evaluated using three core principles: distributive justice, procedural justice, and recognition justice (McCauley, et al, 2013). This concept dominates current policy analysis, programs, and academic research. Within the framework of the "three principles" model, distributive justice takes into account the benefits and costs of energy transition. The deployment of wind energy raises concerns about the advantages and issues of each source, such as environmental impact and development costs. The distribution of these costs may be uneven, based on geographical proximity and access to such benefits as workforce training (Hu, 2020). Furthermore, procedural justice examines how policies and decisions are implemented, as well as ways to involve diverse stakeholders in energy development decision-making processes. This requires inclusive and meaningful access for all interested communities to voice their opinions at each stage of the process (Hazrati and Heffron, 2021).

Ν	Demoethics values	Characteristics of Demoethics values
3	Justice	Recognition justice aims to acknowledge all individuals or communities affected by changes in the energy system and values the understanding of the social, political, and cultural consequences of energy policy or decisions for all people. Understanding that energy systems and transition processes can disproportionately impact certain marginalized communities is a key component of recognizing justice. Recognition and procedural justice often go hand in hand as energy transition considers both the value of who is represented in decision-making processes and the measures that enable or hinder such representation (Lee and Byrne, 2019).
		The role of "justice" in the realm of water resources is as follows: Khaneiki et al. (2023) note that water justice, defined as the distribution of water based on political programs that prioritize specific regions in the reorganization of water resources, has become a major issue in many regions around the world. Iran's "water" mission is an example of how dam and canal construction primarily benefits sectors with high water demand. However, upon examining available data and scientific studies, it has been found that this decision has a negative impact on tourism as it harms the country's natural components, including water landscapes, historical relics, traditional crafts, and urban ecology. Khaneiki's research concludes that the decline in the tourism sector exacerbates social inequality and instability. Fioret (2022) emphasizes the need to advocate for water justice as social-ecological justice. Injustice, which can be associated with and is indeed linked to water, is not simply about unfair distribution or unfairness. It is a moral and political harm that is indicative of a failing democracy. Thus, water injustice causes structural damage.
		Access to water is a human right. Water resources are crucial for sustainable development and the eradication of poverty and hunger. There is an inseparable link between water resources, energy, food security, and nutrition. Water resources are essential for human resource development and ensuring the health and well-being of people, and they are of vital importance for achieving sustainable development goals and other goals in the social, environmental, and economic spheres.
		Modern society is characterized by the rationality of thought and action since culture manifests both rational forms of consciousness, cognition, and cognition and human activity and behavior itself (Rockström et al., 2014).
4	Rationality	<ul> <li>A) Demoeconomic component</li> <li>Demoeconomic education of society involves the realization of the following aspects:</li> <li>rational financial decision-making;</li> <li>conscious consumption;</li> <li>rational use of resources.</li> </ul> <b>The role of the value "rationality" in the energy sector is as follows:</b> The CEO of the private-public partnership for renewable energy and energy efficiency (REEEP), Marianne Moscoso-Osterkorn, published in the Breakthrough Institute describes the difficulty of assessing and measuring the overall effectiveness of energy efficiency measures. The results of these measures are ambiguous, as they are
		influenced by various factors such as economic growth, energy use practices, available technologies, mentality, and the rebound effect. Unfortunately, not all the claims in the report can be verified, which naturally devalues the conclusions made in it. Indeed, the effectiveness of energy efficiency measures aimed at reducing greenhouse gas emissions may be doubted when considering the direct and indirect rebound effect. However, it should not be forgotten that there are many other benefits to rational energy use besides mitigating climate change. Rational energy use increases labor productivity and production, reduces electricity consumption, lowers household expenses, and, importantly, enhances electrical supply security. Practice shows that energy efficiency measures are most successful when they are part of a comprehensive set of
		measures, including the introduction of new technologies, incentives, training, and public mobilization. The implementation of such comprehensive programs results in a significant decrease in energy consumption. According to an expert assessment conducted by the Asia-Pacific Economic Cooperation in September 2009, Thailand saved 10,175 gigawatt-hours of electricity, reduced peak electrical demand by 1725 MW, and decreased carbon dioxide emissions by 6 million tons through the implementation of standards and labeling programs. In the Philippines, the adoption of standards and labeling for air conditioners led to a 6 MW decrease in overall power consumption during the first year of the program. Another example is the national program in Ghana launched in 2007 for the transition to energy-efficient light bulbs. The implementation of this program reduced peak electricity expenses for most low-income residents. After replacing six million light bulbs, the country's peak electricity load decreased by 124 MW per year, and carbon dioxide emissions were reduced by 112,320 tons. Electricity expenses also decreased by \$33 million (Benefits of energy efficiency, 2011).
		The role of the value "rationality" in the sphere of water resources is as follows: Water is a necessary condition for the existence of all living organisms. Both life itself and all economic activities of humans are closely linked to the use of water resources. One indicator of the state of water resources is the water supply indicator, which has its peculiarities in different countries and regions. Many regions around the world are experiencing a shortage of fresh water. The resources of the World Ocean are enormous, but its problems are significant as well. Water bodies are polluted by toxic substances and ordinary waste. Rational use of water resources is the main way to overcome water scarcity (Hasanova et al., 2014).

Ν	<b>Demoethics values</b>	Characteristics of Demoethics values
		According to the Johannesburg Declaration on Sustainable Development 2002 (Declaration on Sustainable Development, 2024), it was highlighted that water and marine pollution continue to deprive millions of people of a decent life (paragraph 13). In this regard, in the Implementation Plan of the World Summit on Sustainable Development (Report of the World Summit on sustainable development, A/CONF.199/20*, 2024), adopted in Johannesburg in 2002, significant attention was given to the protection and rational use of water resources, primarily concerning the provision of safe drinking water, access to basic sanitation services, the development of comprehensive water management plans, and the improvement of water resources, progress toward sustainable development is impossible. At the same time, water resources in the early 21st century must be considered, more than ever before, from the perspective of sustainable development issues. As former UN Secretary-General Kofi Annan rightly noted when inaugurating the International Decade for Action "Water for Life" in 2005, global water resources are "a hope for survival and achieving sustainable development in the 21st century" (International Decade for Action "Water for Life" 1205–2015; Zhanbayev et al., 2024).
		B) Demographic component
4	Rationality	A rational approach in the field of demography includes social, economic, and cultural factors: In the area of fertility and family policy, rational measures such as subsidizing children's goods and services, and increasing maternity leave and benefits for young families are successful. When dealing with the problem of population aging, decisions to improve the living conditions of the elderly, such as, for example, the development of infrastructure, social protection, and health care for the elderly
		population, are effective. It is also demographically rational to develop the health care system and create jobs for young people. When dealing with migration issues, it is rational to attract skilled labor from other countries, which has led to an increase in the number of immigrants. However, this process has both positive and negative implications for fertility and family policies in the receiving and sending countries.
		(C) The democratic dimension Rationality in democracy is openness, logical and objective analysis of facts and arguments, and consideration of the interests and opinions of all citizens.
		Democratic rationality is based on legitimate decision-making by the government, which carries out political elections, public debate and discussion, the work of parliament, and coordinated decision-making in the country. On this basis, democratic rationality ensures that political decisions are objective and open and take into account the views and interests of all citizens.
5		Parents and teachers play an important role in building information safety skills in children. Today, where the internet and digital technology are increasingly prevalent, it is important to teach children how to use information safely. Parents and teachers need to be prepared for possible threats, teach children how to protect themselves, and have ethics online.
		<ul> <li>A) Demographic security</li> <li>The aspect of "demographic security" plays an important role in the sustainable development of society in the following circumstances:</li> <li>Economic Sustainability. Demographic security ensures the availability of a labor force that can sustain productivity and growth of the economy;</li> </ul>
	Security	<ul> <li>Social Security. One aspect of demographic security is the provision of social protection for the population, especially vulnerable groups (children, the elderly, etc.). The existence of a social support system for all members of society contributes to the formation of a prosperous, stable, and safe social environment;</li> <li>Demographic Diversity. Demographic security encompasses many aspects, including the diversity of the population. The participation of different ethnic groups and cultures in social development contributes to strengthening cultural heritage, expanding the idea of citizenship, and the acceptance of different cultural</li> </ul>
		values. The aspect of "security" in the demographics of a society can be influenced by military conflicts, crime and violence, disadvantage, and poverty. Examples:
		During the Syrian civil war, many people were forced to leave their homes and country because of the hostilities. This circumstance led to increased migration and negatively affected the demographics of Syria.
		B) Democratic Component Security democracy has the main objective as to create conditions for the stable development of the country, which includes various factors, internal and external.
		C) Demoeconomic security Demoeconomic security (in the Republic of Kazakhstan) means the state of the economy in which reliable protection of the country's national interests from possible threats both internally and externally is ensured. Social security is a state where the life, health, and welfare of citizens, as well as the spiritual and moral values of society, are protected from possible threats both internally and externally.

N	Demoethics values	Characteristics of Demoethics values
5		Scientific and technological security is a state in which the use of domestic scientific, technological, and educational potential is guaranteed to protect and promote national interests in the field of science and technology. Ecological security is a state in which the environment, life, and health of citizens are protected from dangers generated by human activity, as well as from factors, processes, and phenomena related to nature and technology.
	Security	The role of the value "security" in the energy sector is as follows: Traditionally, energy security is defined as the adequate, accessible, and reliable supply of energy. Energy is needed both for economic development and for human security. A reliable energy supply can be considered a public good for society, for which governments ultimately need to take responsibility for minimizing disruptions in market supply. Disruptions in the supply of oil, gas, and electricity can have serious consequences for society, the economy, and individuals. Unlike energy security and its vulnerabilities, climate change is a more recent problem but closely related to energy policy and energy security. Thus, disruptions in energy supplies are also the result of extreme weather conditions or accidents. In August and September 2005, Hurricanes Katrina and Rita led to the shutdown of 27% of oil production in the United States and 21% of oil refining in the Gulf of Mexico, which had global implications for oil prices, energy policy, climate change, strategic oil reserves, and perceptions of supply security. Decision- makers need to address these dual challenges of energy security and climate change to ensure the security of our global energy system and reduce greenhouse gas emissions as part of an overall strategy for human security (Umbach, 2008).
		The role of the value "security" in the water resources sector is as follows: The concept of water security contains an intuitively understandable appeal as it expresses the main goal of water resources management, which is to improve the quality of life for all. A world where water security is ensured is a world where every person has access to a sufficient amount of safe, accessible, and clean water for a healthy and productive lifestyle, and where communities are protected from floods, droughts, and waterborne diseases. Water security contributes to environmental protection and social justice by resolving conflicts and disputes arising from shared water resources. Currently, there is a growing international consensus on the need to enhance water security on a sustainable basis and build more resilient and reliable water supply systems. However, there is still no consensus on how to formulate, choose an approach, and implement what is a complex and real problem. Water security cannot be fully achieved because constantly changing physical and economic conditions require continuous adaptation of water systems and behavior to meet growing needs and changing climate conditions. In addition, there are no "one-size-fits-all" solutions to improving water security, and appropriate measures will depend on local conditions and the potential for overcoming challenges. Water security relies on the effective integration of water resource management at various scales, particularly at the national, river basin, and local levels, and includes key elements of economic efficiency, social justice, and environmental sustainability.

Source: Developed by the authors.

### 4. Conclusions

This study is an innovative approach to the creation of modern Demoethical values that will become an important component of every society. The main goal of the study is to form a high quality of virtue, which will potentially change social practices, thinking, and self-awareness of humanity, as well as the behavior of individuals and society. As a result of these changes, it is expected to improve the quality of life and increase the competitiveness of the population.

Thus, the feature and basis of the Demoethical values paradigm are: "National Education"—a subject that studies respect for the language and religion of the individual; formation and adaptation to national customs; use of modern achievements in certain situations. The aim of national education is the formation of a full-fledged personality with a developed national consciousness, capable of contributing to national interests and uniting national and universal values. It is based on the categories of national consciousness, language, culture, essence, tradition, and national foundations. This subject will improve the quality of education and play an important role in ensuring the welfare of the people, developing the economy, and strengthening the independence of both the Republic of Kazakhstan and any other State.

National education gives each person a unique national identity, combining universal human traits and personal characteristics. The purpose of this process is the stabilization and sustainable development of social relations for the formation of socially mature virtuous individuals. In addition, the education of personality and the formation of spiritual and moral qualities require the consideration of national culture, traditions, and features of the national character. National and spiritual values, in other words, traditional values based on history, should be included in the educational process. Knowledge of history helps to understand the causes of spiritual and moral vacuum in young people, so the importance of history, philosophy, cultural studies, psychology, and pedagogy in the formation of personality and moral education, in other words, the foundations of statehood are growing.

The presented study considers the theory of ethical values and solves the problem of developing a paradigm of Demoethical values, which would have the opportunity to meet the challenges and become the basis of the moral life of modern people and society arising as a result of global changes. In general, the task of establishing new ethical values arises due to the rapid and multifaceted changes at present, which make the principles of "old ethics" ineffective in the context of modern life. Demoethical values represent a new method of rationalizing personal choices to achieve optimal results and sustainable development of society.

This article shows that the basis for long-term prosperity and well-being of society are spiritual values, such as "Spiritual Morality", "Responsibility", "Justice", "Rationality", and "Security". These values are basic for forming society's cultural and social identity and the level of demographic, democratic, and demoeconomic values of society. The reason is that the internal spiritual fulfillment and moral guidelines of members of society influence the peculiarity of the formation of society and are key in interpersonal and professional relations, where such aspects as trust, reliability, justice, stability, and security of each member of society from external and internal threats are significant. Peaceful coexistence of people in society is impossible without equality and honesty, that is, the implementation of justice in various spheres, such as economic, political, educational, professional, cultural, and medical spheres.

Sustainability involves the coordination of internal and external factors of society's development. The size, health, and level of education of the population, that is, its well-being, is of great importance for long-term planning of the use of processing natural and economic resources. Stable growth and development of society are impossible without a favorable economic environment, and this situation means that the level of poverty and inequality should be reduced and minimized. Economic development is impossible without government and private business policies aimed at stimulating innovation and investment in the development of human capital, respect for human rights, involving citizens in the decision-making process, and ensuring equality of opportunity, that is, without democratic values.

Thus, the developed paradigm of Demoethical values and the definition of their characteristics, categorizing them according to their importance, can provide the necessary conditions for the sustainable development of society, promoting social inclusion and capacity-building of society. The study resolved the objective by analyzing the assessment of ethical values, identifying the paradigm of Demoethics values, and characterizing them by classifying them according to their importance, which can provide the necessary conditions for the sustainable development of society.

Author contributions: Conceptualization, RAZ and AVS; methodology, RAZ and MI; validation, DD, KG and ZY; formal analysis, ZY, DGM and DD; investigation, RAZ; resources, RAZ; data curation, RAZ and AVS; writing—original draft preparation, RAZ; writing—review and editing, RAZ, AVS and SSS; visualization, DGM and DD; supervision, RAZ and MI; project administration, RAZ. All authors have read and agreed to the published version of the manuscript.

**Funding:** This study was funded and supported by the Science Committee of the Ministry of Education and Science of the Republic of Kazakhstan, grant number AP13068164. Development of tools aimed at modeling socio-economic systems for sustainable development of society.

Conflict of interest: The authors declare no conflicts of interest.

## References

- Al-Aomar, R., Alshraideh, H. (2019). A service-oriented material management model with green options. Journal of Cleaner Production 2019, 236, 117557. https://doi.org/10.1016/j.jclepro.2019.07.032
- Alraja, M. N., Imran, R., Khashab, B. M., Shah, M. (2022). Technological Innovation, Sustainable Green Practices and SMEs Sustainable Performance in Times of Crisis (COVID-19 pandemic). Information Systems Frontiers 2022, 24(4), 1081–1105. https://doi.org/10.1007/s10796-022-10250-z
- Ardoin, N. M., Bowers, A.W., Gaillard, E. (2020). Environmental education outcomes for conservation: A systematic review. Biological Conservation 2020, 241, 108224. https://doi.org/https://doi.org/10.1016/j.biocon.2019.108224
- Astrachan, J. H., Astrachan, C. B., Campopiano, G., Bau, M. (2020). Values, Spirituality and Religion: Family Business and the Roots of Sustainable Ethical Behavior. Journal of Business Ethics 2020, 163, 637–645. https://doi.org/10.1007/s10551-019-04392-5.
- Baimuratov, U. B., Zhanbayev, R. A., Sagintayeva, S. S. (2020). The triple helix model for the conceptual mechanism of cooperation between higher education and business: The regional aspect. Econ. Reg. 2020, 16, 1046–1060. https://doi.org/10.17059/ekon.reg.2020-4-3
- Bakeeva, E. V., Biricheva, E. V. (2021). "I" and collective responsibility. Vestn. St. -Peterbg. Univ. Filos. I Konfl. 2021, 37, 41– 52. https://doi.org/10.21638/spbu17.2021.104
- Baker, J. (2018). Virtue ethics. In The SAGE Encyclopedia of Business Ethics and Society (Vol. 7, pp. 3566-3572). SAGE Publications, Inc., 2018. https://doi.org/10.4135/9781483381503
- Bardi, A., Schwartz, S. H. (2003). Values and Behavior: Strength and Structure of Relations. Personality and Social Psychology Bulletin 2003, 29, 1207–1220. https://doi.org/10.1177/0146167203254602.
- Begum, A., Liu, J., Qayum, H., Mamdouh, A. (2022). Environmental and Moral Education for Effective Environmentalism: An Ideological and Philosophical Approach. In International Journal of Environmental Research and Public Health 2022, 19, 15549. https://doi.org/10.3390/ijerph192315549
- Benefits of energy efficiency. (2011). Available online: https://www.unido-russia.ru/archive/num6/art6\_17/ (accessed on 21 March 2024).
- Borojević, T., Petrović, N., Radaković, J.A., Glomazić, H., et al. (2023). Youth Participation for Sustainable Value Creation: The Role and Prioritization of SDGs. Sustainability 2023, 15, 16456. https://doi.org/10.3390/su152316456
- Bosi, A. (2012). Economy and Humanism. Estudos Avancados 2012, 26, 249-265.
- Brigida, V., Golik, V. I., Voitovich, E.V., et al. (2024). Technogenic Reservoirs Resources of Mine Methane When Implementing the Circular Waste Management Concept. Resources 2024, 13, 33. https://doi.org/10.3390/resources13020033
- Brigida, V. S., Golik, V. I., Dmitrak, Y. V., Gabaraev, O. Z. (2019). Ensuring stability of undermining inclined drainage holes during intensive development of multiple gas-bearing coal layers. J. Min. Inst. 2019, 239, 497–501. https://doi.org/10.31897/PMI.2019.5.497

Canto-Sperber, M., Ruwen, O. (2010). La Philosophie Morale, 3rd ed; Presses Universitaires de France: Paris, France, 2010. Capasso, M., Umbrello, S. (2022). Responsible nudging for social good: new healthcare skills for AI-driven digital personal

assistants. Med Health Care and Philos 2022, 25, 11-22. https://doi.org/10.1007/s11019-021-10062-z.

Cowen, M. P., Shenton, R. W. (1996). Doctrines of Development; Routledge: London, UK, 1996.

- Crocker, D. A. (2008). Ethics of Global Development: Agency, Capability and Deliberative Democracy; Cambridge University Press: New York, USA, 2008.
- Crocker, D. A. (1991). Toward Development Ethics. World Development 1991, 19, 457–483.
- Crossan, M., Mazutis, D., Seijts, G. (2013). In Search of Virtue: The Role of Virtues, Values and Character Strengths in Ethical Decision Making. Journal of Business Ethics 2013, 113, 567–581.
- Dahri, N. A., Al-Rahmi, W. M., Almogren, A. S., et al. (2023). Acceptance of Mobile Learning Technology by Teachers: Influencing Mobile Self-Efficacy and 21st-Century Skills-Based Training. Sustainability 2023, 15, 8514. https://doi.org/10.3390/su15118514
- de Pagter, J. (2018). Ethics and Robot Democratization: Reflecting on Integrative Ethics Practices. Int J of Soc Robotics 2023, 15, 2005–2018. https://doi.org/10.1007/s12369-023-01005-0
- De Rosa, D. (2018). The Civil Side of Economy: On the Extraordinariness of Ordinary Human Beings Journal of Human Development and Capabilities 2018, 19(1), 112-117, DOI: 10.1080/19452829.2017.1421029
- Declaration on Sustainable Development. (2024). Available online: http://www.un-documents.net/jburgdec.htm (accessed on 21 March 2024).
- Doğru, M. S., Yüzbaşıoğlu, F. (2023). Examining students' thoughts on climate change in the context of basic concept. Research on Education and Psychology 2023 7(2), 316–329. https://dx.doi.org/10.54535/rep.1340429
- Ellerman, D. P. (1988). The Kantian Person/Thing Principle in Political Economy. Journal of Economic Issues 1988, 22(4), 1109–1122, DOI: 10.1080/00213624.1988.11504844
- Elshaer, S., Martin, L. J., Baker, T.A., et al. (2023). Environmental Health Knowledge Does Not Necessarily Translate to Action in Youth. International Journal of Environmental Research and Public Health 2023, 20, 3971. https://doi.org/10.3390/ijerph20053971
- Fioret, C. (2022). Water Justice as Socioenvironmental Justice. Ethics, Policy & Environment 2022, 26(3), 406–421 https://doi.org/10.1080/21550085.2022.2090211.
- Floridi, L., Cowls, J. A. (2019). united framework of five principles for AI in society. Harvard Data Science Review 2019, 1. https://doi.org/10.1162/99608f92.8cd550d1.
- Fritzsche, D., Oz, E. (2007). Personal values' influence on the ethical dimension of decision making. Journal of Business Ethics 2007, 75, 335–343.
- Gajović, A., Bjelica, D., Pavlović D., Vukmirovic, D. (2023). Educating youth on project sustainability project engagement and recognition of the green deal. Applied Ecology and Environmental Research 2023, 21(4), 2969–2989. http://dx.doi.org/10.15666/aeer/2104\_29692989
- Gasper, D. (2008). Denis Goulet and the Project of Development Ethics: Choices in Methodology, Focus and Organization. Journal of Human Development 2008, 9, 453–474.
- Geiger, I. (2008). What is the Use of the Universal Law Formula of the Categorical Imperative? British Journal for the History of Philosophy 2010, 18(2), 271–295, DOI: 10.1080/09608781003643568
- Golik, V. I., Klyuev, R. V., Martyushev, N. V., et al. (2023). Reuse and Mechanochemical Processing of Ore Dressing Tailings Used for Extracting Pb and Zn. Materials 2023, 16(21), 7004. https://doi.org/10.3390/ma16217004
- Gomes, S., Lopes, J. M. (2024). Unlocking the potential of circular consumption: The influence of circular habits, environmental concerns and the search for pro-sustainable information on circular consumption. Business Strategy & Development 2024, 7(1), e327 https://doi.org/10.1002/bsd2.327
- Goulet, D. (1988). Tasks and Methods in Development Ethics. Cross Currents 1988, 38, 146-163.
- Goulet, D. A. (1974). New Moral Order: Studies in Development Ethics and Liberation Theology; Orbis Books: Maryknoll, NY, USA, 1974
- Goulet, D. (1971). An Ethical Model for the Study of Values. Harvard Educational Review 1971, 41, 205–227.
- Goulet, D. (1997). New Discipline: Development Ethics. International Journal of Social Economics 1997, 24, 1160–1171.
- Goulet, D. (1960). Pour une éthique moderne du développement. Développement et Civilisations 1960, 3, 10-23.

- Ha, J. W., Jeon, E.-C., Park, S. K. (2023). Status of environmental awareness and participation in Seoul, Korea and factors that motivate a green lifestyle to mitigate climate change. Current Research In Environmental Sustainability 2023, 5, 100211. https://doi.org/10.1016/j.crsust.2023.100211
- Hasanova, D. N., Shakirova, S. M., Isianbaev, M. N. (2014). Ratsionalnoe ispolzovanie vodnykh resursov kak faktor ustoichivogo sotsialno ekonomicheskogo razvitiia regiona (na primere Respubliki Bashkortostan) [Rational use of water resources as a factor of sustainable socio–economic development of the region (on the example of the Republic of Bashkortostan)]. Modern Problems of Science and Education 2014, 5. Available from: https://science-education.ru/ru/article/view?id=14990.
- Hazrati, M., Heffron, R. J. (2021). Conceptualising restorative justice in the energy transition: changing the perspectives of fossil fuels. Energy Research & Social Science 2021, 78, 102115. https://doi.org/10.1016/j.erss.2021.102115
- Hu, Z. (2020). When energy justice encounters authoritarian environmentalism: the case of clean heating energy transitions in rural China. Energy Research & Social Science 2020 70, 101771. https://doi.org/10.1016/j.erss.2020.101771.

Hursthouse, R. (1999). On virtue ethics. Oxford University Press: New York, USA, 1999.

- International Decade for Action "Water for life" 2005–2015. United Nations. Department of Economic and Social Affairs (UNDESA). Available online: https://www.un.org/waterforlifedecade/background.shtml (accessed on 10 March 2024).
- Jaberi, A. (2022). Participating in plogging as an eco-friendly physical activity: Motivations and reasons. International Sports Studies 2022, 45(1), 74–91. https://doi.org/10.30819/iss.45-1.07. Indexed 2023-10-22
- Jordan, K., Kristjánsson, K. (2017). Sustainability, virtue ethics, and the virtue of harmony with nature. Environmental Education Research 2017, 23(9), 1205–1229. https://doi.org/10.1080/13504622.2016.1157681
- Juárez, M. C., Gasper, D. (2021). Comparing two pioneers of development ethics: Louis-Joseph Lebret and Denis Goulet. Journal of Global Ethics 2021, 17, 260–278. https://doi.org/10.1080/17449626.2021.1954053
- Kerimov, T. (2022). Non-philosophy and the limits of philosophy: G. Deleuze and F. Laruelle. Filosofskii zhurnal. Philosophy Journal. 2022, 15(2), 64-79. https://doi.org/10.21146/2072-0726-2022-15-2-64-79
- Kerimov, T. (2023). The Persistence of Critique and the Impasses of Postcritique. Philosophy Journal of the Higher School of Economics 2023, 7(2), 60-85. https://doi.org/10.17323/2587-8719-2023-2-60-85
- Khaneiki, M. L., Al-Ghafri, A. S., Seyfi, S., Haghighi, A. T. (2023). The illusion of water justice at the expense of tourism, Current Issues in Tourism, 2023. https://doi.org/10.1080/13683500.2023.2220951.
- Kirillova, N. B., Shlykova, O. V. (2022). Modifying the humanities: global challenges of the digital revolution. Perspectivy nauki i obrazovania–Perspectives of Science and Education 2022, 59 (5), 10–23. https://doi.org/10.32744/pse.2022.5.1
- Kirillova, N. B. (2021). New concepts of media science in the sociocultural system of the information civilization. Perspektivy nauki i obrazovania Perspectives of Science and Education 2021, 54(6), 10–22. https://doi.org/10.32744/pse.2021.6.1
- Lee, J., Byrne, J. (2019). Expanding the conceptual and analytical basis of energy justice: beyond the three-tenet framework. Frontiers in Energy Research 2019 7, 99. https://doi.org/10.3389/fenrg.2019.00099.
- Li, F., Ruijs, N., Lu, Y. (2023). Ethics & AI: A Systematic Review on Ethical Concerns and Related Strategies for Designing with AI in Healthcare. AI 2023, 4, 28-53. https://doi.org/10.3390/ai4010003
- Lin, C.-C., Dong, C.-Mi. (2023). Exploring Consumers' Purchase Intention on Energy-Efficient Home Appliances: Integrating the Theory of Planned Behavior, Perceived Value Theory, and Environmental Awareness. Energies 2023, 16(6), 2669. https://doi.org/10.3390/en16062669
- Ma, Z., Guo, Y. (2023). Leveraging Intangible Cultural Heritage Resources for Advancing China's Knowledge-Based Economy. J Knowl Econ 2023. https://doi.org/10.1007/s13132-023-01643-9
- Malyukova, L. S., Martyushev, N. V., Tynchenko, V. V., et al. (2023). Circular Mining Wastes Management for Sustainable Production of Camellia sinensis (L.) O. Kuntze. Sustainability 2023, 15, 11671. https://doi.org/10.3390/su151511671
- McCauley, D. A., Heffron, R. J., Stephan, H., Jenkins, K. (2013). Advancing energy justice: the triumvirate of tenets. International Energy Law Review 2013, 32(3), 107–110.
- Mittelstadt, B. (2019). Principles alone cannot guarantee ethical AI. Nat Mach Intell 2019, 1, 501–507. https://doi.org/10.1038/s42256-019-0114-4

Mökander, J., Floridi, L. (2023). Ethics-based auditing to develop trustworthy AI. Minds and Machines 2021, 31, 323–327.

- National Projects of Russia-2023: results and expectations. (2024). Available online: https://wciom.ru/analytical
  - reviews/analiticheskii-obzor/nacionalnye-proekty-2023-itogi-i-ozhidanija (accessed on 12 February, 2024).

- Nicolaou, C. (2021). Media Trends and Prospects in Educational Activities and Techniques for Online Learning and Teaching through Television Content: Technological and Digital Socio-Cultural Environment, Generations, and Audiovisual Media Communications in Education. Educ. Sci. 2021, 11, 685. https://doi.org/10.3390/educsci11110685
- Nicolaou, C., Matsiola, M., Kalliris, G. (2022). The Challenge of an Interactive Audiovisual-Supported Lesson Plan: Information and Communications Technologies (ICTs) in Adult Education. Educ. Sci. 2022, 12, 836. https://doi.org/10.3390/educsci12110836
- Panesar, A., Panesar, H. (2020). Artificial Intelligence and Machine Learning in Global Healthcare. In: Handbook of Global Health. Springer, Cham, 2020. https://doi.org/10.1007/978-3-030-05325-3 75-1
- Putilova, E., Tsiplakova, Y., Pyrina, M. (2023). Network user behavior and media risks in modern education. E3S Web of Conferences 2023, 431, 05004. https://doi.org/10.1051/e3sconf/202343105004
- Putilova, E., Tsiplakova, Y., Diachkova A., Knysh, E. (2023). Environmental education and its principles. E3S Web of Conferences 2023, 431, 09003. https://doi.org/10.1051/e3sconf/202343109003
- Rahman, H. A., Dahalan, D., Bakar, A. S. A. (2023). Effects of an Environmental Education Intervention on Environmental Sustainability Among Youth in Malaysia. Jurnal Ilmiah Peuradeun 2023, 11(3), 873–886. https://doi.org/10.26811/peuradeun.v11i3.1036
- Rating of trust in politicians, assessment of the work of the President and the Government, support for political parties. (2024). Available online: https://wciom.ru/analytical-reviews/analiticheskii-obzor/reitingi-doverija-politikam-ocenki-rabotyprezidenta-i-pravitelstva-podderzhka-politicheskikh-partii-02022024 (accessed on 22 February, 2024).
- Report of the World Summit on sustainable development (A/CONF.199/20\*). (2024). Resolution 2\*. New York: United Nations. Available online: http://www.un-documents.net/aconf199-20.pdf (accessed on 10 March 2024).
- Rockström, J., Falkenmark, M., Allan, T., et al. (2014). The unfolding water drama in the Anthropocene: Towards a resiliencebased perspective on water for global sustainability. Ecohydrology 2014, 7, 1249–1261. https://doi.org/10.1002/eco.1562.
- Shutaleva, A. (2023). Ecological Culture and Critical Thinking: Building of a Sustainable Future. Sustainability 2023, 15, 13492. https://doi.org/10.3390/su151813492
- Shutaleva, A., Martyushev, N., Starostin, A., et al. (2022). Migration Potential of Students and Development of Human Capital. Educ. Sci. 2022, 12, 324. https://doi.org/10.3390/educsci12050324
- Simchenko, N. A.; Astratova, G., Klimuk, V. (2023). Creative human capital and assessment of its manifestation in organizational behavior in the context of digitalization higher education. Perspektivy nauki i obrazovania – Perspectives of Science and Education 2023, 66(6), 647-672. https://doi.org/10.32744/pse.2023.6.38
- Summers, J. S. (2017). Rationalizing our Way into Moral Progress. Ethic Theory Moral Prac. 2017, 20, 93–104. https://doi.org/10.1007/s10677-016-9750-5.
- Taddeo, M., McNeish, D., Blanchard, A., Edgar, E. (2021). Ethical Principles for Artificial Intelligence in National Defence. Philos. Technol. 2021, 34, 1707–1729. https://doi.org/10.1007/s13347-021-00482-3.
- Tahat, D. N., Habes, M., Tahat, K., et al. (2023). Technology Enhanced Learning in Undergraduate Level Education: A Case Study of Students of Mass Communication. Sustainability 2023, 15, 15280. https://doi.org/10.3390/su152115280
- The New ethics: Solidarity of the "shocked" (interview with A. Glucksmann). (1991). Voprosy Filosofii 1991, 3, 84–90.
- The results of the early elections of the President of the Republic of Kazakhstan according to the data of the Central Election Commission of the Republic of Kazakhstan (CEC of the Republic of Kazakhstan). Available online: https://www.election.gov.kz/rus/news/releases/index.php?ID=8012 (accessed on 21 November 2022).
- Toffler, A., Toffler, H. (1995). Creating a New Civilization: The Politics of the Third Wave. Turner Publishing: Atlanta, USA, 1995.
- Tomyuk, O. N., Diachkova, A. V., Kerimov, A. A., Dudchik, A.Y. (2021). The educational potential of podcasts in the context of formation human legal culture: a new format and new opportunities media sphere. Perspektivy nauki i obrazovania – Perspectives of Science and Education 2021, 54(6), 443–459 https://doi.org/10.32744/pse.2021.6.30
- Tul'pe, I.A. (2022). "New Ethics" in the philosophy of culture problematic field. Pushkin Leningrad State University Journal 2022, 1, 86–100. https://doi.org/10.35231/18186653\_2022\_1\_86
- Uda, S., Basrowi, B. (2024). Environmental education using SARITHA-Apps to enhance environmentally friendly supply chain efficiency and foster environmental knowledge towards sustainability. Uncertain Supply Chain Management 2024, 12(1), 359-372. https://dx.doi.org/10.5267/j.uscm.2023.9.015

- Ufuk, H., Özgen, Ö. (2001). Interaction between the Business and Family Lives of Women Entrepreneurs in Turkey. Journal of Business Ethics 2001, 31, 95–106. https://doi.org/10.1023/A:1010712023858.
- Umbach, F. (2008). German Debates on Energy Security and Impacts on Germany's 2007 EU Presidency. In: Marquina, A. (eds) Energy Security. Palgrave Macmillan, London, 2008. https://doi.org/10.1057/9780230595002\_1.
- Weaver, M. S., Yuroff, A., Sund, S., et al. (2021). Quality of Life Outcomes According to Differential Nusinersen Exposure in Pediatric Spinal Muscular Atrophy. Children 2021, 8, 604. https://doi.org/10.3390/children8070604
- Xu, Y., Chin, W., Liu, Y., He, K. (2023). Do institutional pressures promote green innovation? The effects of cross-functional coopetition in green supply chain management. International Journal of Physical Distribution & Logistics Management 2023, 53(7/8), 743–761. https://doi.org/10.1108/IJPDLM-03-2022-0104
- Yaitskaya, N. A., Dzaganiia, L. M., Brigida, V. S. (2023). Geoecological hazards in context of climate change of territories of Caucasus subtropical zone. Geologiya I Geofizika Yuga Rossii = Geology and Geophysics of Russian South (in Russ.) 2023, 13(2), 118-132. https://doi.org/10.46698/VNC.2023.54.85.010
- Yassi, A., Breilh, J., Dharamsi, S., Lockhart, K., et al. (2013). The Ethics of Ethics Reviews in Global Health Research: Case Studies Applying a New Paradigm. Journal of Academic Ethics 2013, 11, 83–101.
- Yuan, L., Chia, R., Gosling, J. (2022). Confucian Virtue Ethics and Ethical Leadership in Modern China. Journal of Business Ethics 2022, 182, 119–133.
- Zagzebski, L. (2012). Virtue Ethics. In SAGE Brief Guide to Business Ethics (pp. 57-68). SAGE Publications, Inc., 2012. https://doi.org/10.4135/9781452243979
- Zhanbayev, R., Madenova, A., Sagintayeva, S. (2023). The Green economy: implementation of "Demoethics" principles for sustainable development of environmental compliance and corporate social responsibility. Economic Series of the Bulletin of L.N.Gumilyov Eurasian National University 2023, 4, 212–225. https://doi.org/10.32523/2789-4320-2023-4-212-227.
- Zhanbayev, R. A., Irfan, M., Shutaleva, A. V., et al. (2023). Demoethical Model of Sustainable Development of Society: A Roadmap towards Digital Transformation. Sustainability 2023, 15, 12478. https://doi.org/10.3390/su151612478
- Zhanbayev, R. A., Maksimov, D. G., Sagintayeva, S. S., Madenova, A. E. (2024). Demoeconomics: the interconnection of water resources and demoethical values. Bulletin of the Karaganda University Economy Series 2024, 29, 1(113), 121–131. https://doi.org/10.31489/2024Ec1/121-131
- Zhanbayev, R. A., Maksimov, D. G., Tansykbayeva, G. O., et al. (2023). The correlation between demographic processes and demoethical values of sustainable societal development in the context of climate and energy migration and water scarcity. Bulletin of the Karaganda university Economy series 2023, 4, 128–141.
- Zhanbayev, R. A., Yerkin, A. Y., Shutaleva, A. V., et al. (2023). State asset management paradigm in the quasi-public sector and environmental sustainability: Insights from the Republic of Kazakhstan. Front. Environ. Sci. 2023, 10, 1037023.