



Evaluation of Water Sources and Animal Species in Terms of Scarcity, Rights and Welfare

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ABSTRACT

Problems such as global warming, climate change, water, and food availability have been some of the most important issues on the world agenda in recent years. For sustainable welfare, the concepts of equality, justice, and rights are indispensable for the ecosystem. At present, the adoption of legal regulations on water scarcity, the right to water, animal welfare, and animal rights as well as the awareness of conscientious responsibility for the individual and wider society has been an important development for the future. With this in mind, this article is aimed at contributing to the objective questioning of the concepts of rights and welfare with their emotional, legal, and scientific aspects by removing our

presuppositions about life, and abandoning the distinction between living and non-living things. The study consists of two parts. In the first part, water scarcity and the right to water, and in the second part, evaluations are made in terms of animal welfare and rights. The general acceptance of water consumption as a need rather than a right has turned it into a commodity that can be bought and sold with the use of money. Although there is enough water in the world, the perception of scarcity consciousness arising from the possible inadequacy of the amount of consumable water needs to be re-questioned at the intellectual level by considering it from the perspective of a biological transformation.

Keywords: Water, Animal, Scarcity, Right, Welfare

1. Introduction

1.1. Water scarcity

Şahin (2016), while explaining water scarcity in her thesis, evaluated its conceptual definition in terms of economic science. Accordingly, a hotly debated topic in economics is the concept of scarcity. In economic terms, scarce resources are expressed as meeting infinite needs. The fact that needs are infinite and resources are limited means that individuals are confronted with a problem of choice.

Classical and neo-classical economics literature refers to individuals who act rationally and in line with their interests when deciding between options as "*Homo economicus*". The fact that individuals behave like homo economicus in decision-making processes is usually explained by Adam Smith's "diamond-water paradox". In simple terms, the diamond-water paradox is based on a choice that a person in the desert has to make between diamonds and water, and the choice between diamonds, a luxury good, and water, of seemingly lesser value, favors water under the extreme conditions of the desert. The change in the value attributed to water and the characterisation of water as an economic commodity covers a certain process (Şahin 2016). It can be stated that this has become more evident in the changing world economic understanding.

Water scarcity is one of the most important global environmental problems. Water scarcity, which is measured by the amount of water per capita and evaluated with the help of various indices, shows its effects in many regions of the world. The main causes of water scarcity are global climate change, drought, deforestation, the increase in fossil fuel use, change in consumption habits, economic growth, the increase in the global population and urbanization rates, pollution, lack of personal water use awareness, and water management policies that are not suitable for resources and shaped according to political understandings (Şahin 2016).

In the water cycle (hydrological cycle), the basic dynamics of which is formed by solar energy, the water in the oceans first turns into vapour with solar energy, and the water that rises to the atmosphere by evaporation is carried over land. The water in

the clouds encountering cold air condenses and descends to the earth in the form of rain or snow. Some of the precipitation falling on the land returns to the atmosphere by evaporation and transpiration through soil and vegetation (Bilen 2008).

The fact that water resources are facing the danger of extinction makes the problem of water scarcity the most important issue of the 21st century. For this reason, water resources have been a subject on the agenda on international platforms since the late 1990s (Şahin 2016).

It has been observed that average temperatures on land and in seas have increased by 0.85 °C in the last 100 years. As a result of increasing greenhouse gas emissions in the world and increasing global warming, it is estimated that the global temperature will increase by 1 - 3.5 °C over the next 100 years (Aksoy & Çabuk 2015).

By 2050, the world population is expected to increase by 33% to 9.3 billion and accordingly, the demand for food is expected to increase by 60% in the same period. It is also estimated that the population living in urban areas will reach 6.3 billion in 2050, almost two-fold greater than the current population. In the Baseline Scenario of the Global Environmental Outlook prepared by the OECD, an upward trend in the strain on access to freshwater is projected by 2050, with an additional 2.3 billion people in addition to the current population living in regions subject to severe water stress, particularly in Northern and Southern Africa and South and Central Asia. Another report, BAU (a business-as-usual) scenario, estimates a 40% global water deficit by 2030 (Küçükşakarya & Göçmen 2019).

The decrease in water resources as a result of global warming is expected to cause a decrease in agricultural and forestry products, energy shortages, and population movement from coastal to inland areas. In order to protect the ecological balance and ensure the sustainable development of urban and rural communities, water resources should be used in the most rational way to meet current and future needs (Karaman & Gökalp 2010).

In general, the water potential of a country is evaluated according to the amount of water per capita in that country. According to a widely used international criterion, countries with a water potential of 10,000 m³ per capita per year are called water-rich countries; countries with a water potential between 10,000 m³ and 3000 m³ per capita per year are called self-sufficient countries and countries with a water potential between 3000 m³ and 1000 m³ per capita per year are called water-scarce countries. Countries with less than 1000 m³ per capita per year are classified as water-poor countries (Uluirmak 2014).

Another measure used to indicate water scarcity or water stress is the 'Falkenmark Index'. According to this index, scarcity or stress is determined in line with the annual per capita water amount in a region or country as follows

- No water problem above 1.700 m³
- Water shortage between 1.700-1.000 m³
- Water scarcity between 1,000-500 m³ and
- Below 500 m³ is considered as a region or country with absolute water scarcity (Muluk et al. 2013).

Whether water is an economic or public good is a long-debated issue. However, the water policies implemented by countries today demonstrate that water is considered as an economic good. Economic science categorizes goods into different groups. One of these distinctions is free goods, which are abundant in nature according to human desires; the other is economic goods, which are scarce according to human desires. Beyond these goods, water is a geo-strategic and geo-political resource. It is not like other goods, it has a special position, strategy and policy. Namely (Savenije 2002);

- a. Water is mandatory.
- b. Water is limited.
- c. Water is fluid.
- d. Water is a system, the existence and continuation of the natural system depends on water.
- e. Water is difficult to transport.
- f. Water has no substitutes and its area of use is extensive.
- g. Water cannot be treated freely.
- h. Water is complex and cannot be subject to free trade.

According to Küçüksakarya & Göçmen (2019), if we need to emphasize the seriousness of the issue in our country, according to the State Hydraulic Works (DSİ) data, Turkey's per capita water potential is 1422 m³. In terms of both classifications, it is observed that Turkey is facing a water shortage. Based on the estimation of the Turkish Statistical Institute (TurkStat) that the population of Turkey will reach 88 million in 2030, it is thought that the annual per capita water level will be around 1 200 m³ by 2030. However, these assessments are based on the assumption that Turkey, which is not a water-rich country, will transfer its current water resources to 2030 without depleting them, and it is estimated that Turkey, like many countries around the world, will experience water scarcity in the near future.

According to a report published by the United Nations World Water Assessment Programme (DSDP 2015), 663 million people do not have access to drinking water. Similarly, according to the World Resources Institute, more than one billion people are facing water scarcity today and this number is expected to reach 3.5 billion by 2025. Considering these reports and the findings of various studies, water is fast becoming a scarce resource day by day and needs to be managed carefully and wisely.

The agriculture sector is the field in which water resources are most extensively used. Worldwide, 70% of the fresh water extracted is used in agricultural activities and this rate reaches 90% in less developed countries (DSDP 2015). The rapid consumption and pollution of water resources by agricultural activities in order to meet the food demands of the growing global population and national populations increases the already existing scarcity and pressure on these resources. The fact that agricultural activities are carried out globally with inefficient irrigation systems further amplifies the problems. Considering the predictions that by 2050 there will be 60% more agricultural production in the world and 100% more in developing countries (DSDP 2015), it appears inevitable that many wetlands and river basins will face water scarcity in the near future.

With climate change and human activities expected to increase, the increasing trend in conflict events could persist, with water resources becoming a more frequent cause of future conflict. Identifying these complex cooperation-conflict changes is vital in determining future actions required to reduce conflict events and promote cooperation on the subject of water (Kåresdotter et al. 2023).

Water scarcity affects more than 40% of people worldwide, an alarming figure that is projected to rise as temperatures do. Although 2.1 billion people have improved water sanitation since 1990, dwindling drinking water supplies are affecting every continent. More and more countries are experiencing water stress, and increasing drought and desertification is already worsening these trends. By 2050, it is projected that at least one in four people will suffer recurring water shortages. Safe and affordable drinking water for all by 2030 requires investment in adequate infrastructure, the provision of sanitation facilities, and high hygiene levels. Protecting and restoring water-related ecosystems is essential. Ensuring universal safe and affordable drinking water involves accounting for over 800 million people who lack basic services and improving accessibility and safety of services for over two billion people (UNDP Turkey 2023).

With this progress, per capita water use has reached unprecedented levels. A hundred years ago, even in the most developed societies, the services provided by these infrastructures, which were accessible to a limited number of people, were regarded as a fundamental right of citizenship, and for this reason, governments have made great efforts to rectify the deficiencies in these infrastructures, regardless of the costs. As a result, water use in the world in the 20th century increased at twice the rate of the global population growth (WHO 2021). However, this increase, together with the new problems of the modern age, has seen water shortages around the world reach unprecedented historic levels. Billions of people around the world face problems such as excessively polluted water; extreme climate events linked to global climate change, manifested by severe droughts or floods; and a lack of access to safe and affordable drinking water. These water challenges lead to increased insecurity, migration and the risk of violent conflict, especially in developing countries that lack the financial, technical and governance capacities to address these problems.

Water is of great importance in all areas of agriculture, including crop farming, animal husbandry and aquaculture. The amount of water used in agriculture varies according to the method used. While soil moisture is sufficient for agriculture in some regions, rainwater-based agriculture is practiced in many regions, and irrigated agriculture can be practiced in suitable regions. Rainfed agriculture is practiced in 80% of the cultivated areas in the world and 60% of food production is provided from these areas. Although irrigated agriculture is practiced in about 20% of cultivated areas in the world, it accounts for 40% of food production (FAO 2020). Water withdrawals from surface and groundwater sources for irrigation are 2,797 km³ per year by 2020, accounting for 70% of all water withdrawals worldwide. In drier regions, this rate rises to over 90%. Irrigated agriculture accounts for more than 70% of global water use (FAO 2020).

Excessive groundwater abstraction, inefficient irrigation methods, salination of groundwater reserves and excessive use of fertilizers have become major threats to water resources. Water is mobile, it does not disappear. The amount of water on earth remains constant over the years. The water cycle is the most important assurance of the renewal of water resources. Every year, a volume more than the water mass in the Black Sea, i.e. 577,000 km³ of water, is recirculated in this cycle (TEMA 2021).

According to the UN, a "water shortage" occurs when a region withdraws 25% or more of its renewable freshwater resources (United Nations Water 2021). Today, one of the main factors for the current water crisis is global climate change. Due to global

warming, rainfall irregularity as well as widespread and prolonged drought, on the other hand, are becoming frequent occurrences (UNDRR 2021). The UN defines water scarcity as "the point at which the demands of all water users for water supply or quality cannot be fully met within the framework of the institutional arrangements in place" (United Nations Water 2021). Mathematically, water scarcity is defined as "the ratio of human water consumption to available water supply in a given area". Hydrologists generally assess and rate water scarcity in a region according to this population/water ratio.

The National Water Policy (Ulusal Su Planı 2019-2023) sets out the general outlines of our national water policy with the goal of "A Turkey with a National Water Policy" in the vision of 2023. In this context, in the publication prepared by the Turkish Ministry of Agriculture and Forestry; i.e. the Special Expertise Commission Report on Water Resources Management and Security prepared within the scope of the 10th Development Plan, water security is defined as 'the ability of a society to maintain its access to the water it needs for purposes such as drinking, using, irrigation water supply and energy production and to protect itself from the possible damages of water' (Ulusal Su Planı 2019-2023).

According to the proceedings (DSİ 2017), 51 decisions on water were reached at the 2nd Forestry and Water Council. Among these decisions, the decision on water law is provided below; Decision 34. Institutions and organizations working in the field of water law and policies should be supported and the development of their institutional capacity on these issues should be encouraged.

The establishment of a healthy supply-demand balance depends on the correct determination of inter-sectoral water use needs. In Turkey, a total of 54 billion m³ of water are used annually, of which 7 billion m³ (13%) are used in industry, 7 billion m³ (13%) as drinking and potable water and 40 billion m³ (74%) in irrigation. This amount corresponds to 48.2% of the technically and economically available 112 billion m³ water potential. In the last 20 years, there has been a 40% increase in the total amount of water consumed in Turkey. Considering the population growth rate and the growth in the drinking-utilization, agriculture, industry and energy sectors, it is predicted that the amount of water that will be needed in the next 25 years will reach three times the current water consumption. (Ulusal Su Planı 2019-2023).

According to the Ulusal Su Planı (2019-2023), it is clear that the increasing water demand will gradually increase the pressure on existing resources. Within the scope of the use of 112 billion m³ of water, which is among our 2030 targets, which is the current technically and economically usable potential, and the development and utilization of irrigated agricultural areas, sectoral water use is planned to be 64% for agriculture, 20% for industry and 16% for domestic use (DSİ 2017). The distribution of population, industrial activities and other sectoral activities in Turkey does not exhibit a balanced and homogenous structure. As of 2017, the total gross irrigated land area reached 6.5 million hectares, which corresponds to 72% of the total economically irrigable land (DSİ 2017).

In 2016, the net irrigation area in Turkey was 3 million hectares (DSİ 2017). Most of the irrigable agricultural land (about 75-80%) is irrigated with surface water and the rest with groundwater. In 2016, 77% of the 43 billion m³ of water used for irrigation in Turkey was surface water and 23% was groundwater (DSİ 2017). In water distribution systems, traditional systems with high leakages and evaporation losses account for the majority.

1.2. Right to water

The right to water is the right of people to have access to healthy and economically viable water. What is meant by this right is that it is not only a right specific to humans, but also covers all living beings (Firdin 2015).

Water is a fundamental element of vital importance not only for humans but also for all living things in nature. Due to the vital importance of water, it is a fundamental right for humans and this right must be evaluated within the scope of human rights. Human rights include the fundamental rights and freedoms recognized as possessed by all human beings. These rights are the rights that every human being can enjoy regardless of race, language, religion and gender (Özsoy 2009).

According to the neo-liberal approach, the right to education, health and water are not rights but needs and the state should intervene and meet these needs (Çulhaoğlu 2001).

The basic view of neo-classical economics is based on the assumption that human needs are diverse and infinite, whereas the means and earth resources that can fulfil human needs are limited. For this reason, every object intended to fulfil these needs is considered as a "commodity" whose value must be determined. This presupposition tries to transform water, which is indispensable for all living beings and cannot be substituted, into a commodity in today's conditions; the privatization of water is brought to the agenda in the global stage of capitalism due to the excessive profit ambition of capital, and with commercialization, water is offered to the market as a commodity that can be bought and sold, accessible only to those with money (Özsoy 2009).

In discussions on the relationship between neoliberal policies and health, health is frequently reduced to health policies and the effect of neoliberal policies are generally assessed only in the frame of global transformation of health systems. However, health is being shaped not only by biological factors and health systems, but also by economic, social and political factors like

living, working, housing conditions and nutrition. The rise in unemployment; worsening of working conditions; increased flexibility of legislations regarding the security of the environment, agriculture and food, urbanization and nutrition; weakening of state supervision on capitalist enterprises which harm public health and the deepening of social inequalities are the other dimensions of the impact of neoliberal policies on public health (Temmuz 2017).

The greatest threat to nature is the transformation of technological progress into a mechanism that is deeply connected to the capitalist system and operates only by the rules of the market. Since the capitalist system, which recognizes nature as a tool, tries to dominate nature, the results that have emerged today have been constantly ignored. As Marx stated in his 1844 Political Economy and Philosophical Writings, "Man lives in dependence on nature. Nature is man's body. Man must be in a good and constant dialogue with nature in order not to die. To say that man's physical and cerebral life depends on nature is to say that man depends on nature itself. Because man is a part of nature with his whole being." The capitalist system, which worships overproductionism with the greed for profit, uses nature irreversibly. The exploitation of all elements of human and nature for capital accumulation is perceived as the natural dynamics of the system and these conditions pave the way for ecological destruction. The process transforms natural relations into commodity relations (Özsoy 2009).

According to Minibaş (2008) quoted by Özsoy (2009) in his article, water is one of the most indispensable requirements for the life of other living creatures as well as humans. Therefore, its demand is continuous. Due to its non-substitutable feature, its use value is very high. Since it is an indispensable requirement of life, it is a compulsory complement in agriculture and animal husbandry. It is used as input in various stages of production from the manufacturing industry to construction, from mining to health, from transport to energy production. It is an energy source used in transport and lighting as well as irrigation.

The following first three articles of the Universal Declaration of Human Rights and articles 11 and 12 of part III of the International Covenant on Economic, Social and Cultural Rights and are of a nature that can be a source for recognizing water as a fundamental human right:

Article 1) All human beings are born free and equal in dignity and rights, are endowed with reason and conscience, and should act towards one another in a spirit of brotherhood.

Article 2) Everyone is entitled to all the rights and freedoms set forth in this Declaration without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, wealth, birth or other status.

Article 3) Every individual has the right to life, liberty and security (Anonymous 2023a).

International Covenant on Economic, Social and Cultural Rights (PART III):

Article 11

1. The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions. The States Parties will take appropriate steps to ensure the realization of this right, recognizing to this effect the essential importance of international cooperation based on free consent.

2. The States Parties to the present Covenant, recognizing the fundamental right of everyone to be free from hunger, it shall take, individually and through international co-operation, the measures, including specific programmes, which are needed:

(a) To improve methods of production, conservation and distribution of food by making full use of technical and scientific knowledge, by disseminating knowledge of the principles of nutrition and by developing or reforming agrarian systems in such a way as to achieve the most efficient development and utilization of natural resources;

(b) Taking into account the problems of both food-importing and food-exporting countries, to ensure an equitable distribution of world food supplies in relation to need.

Article 12

1. The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.

2. The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right shall include those necessary for:

(a) The provision for the reduction of the stillbirth-rate and of infant mortality and for the healthy development of the child;

(b) The improvement of all aspects of environmental and industrial hygiene;

(c) The prevention, treatment and control of epidemic, endemic, occupational and other diseases;

(d) The creation of conditions which would assure to all medical service and medical attention in the event of sickness (Anonymous 2023b).

Every human being deserves to have the means to meet his/her most basic needs such as food, shelter and water. Although there is no article on water in the Universal Declaration of Human Rights, it can be argued that the right to life stated in the third article includes water. Many people interested in the subject have also emphasized the third article and expressed a similar opinion.

Many international treaties and conventions define a wide range of human rights. The 1966 "International Covenant on Economic, Social and Cultural Rights", the 1966 "International Covenant on Civil and Political Rights", the "Declaration on the Right to Development" and the "European Convention on Human Rights" being the most notable ones (Tomanbay 2008). All other fundamental rights included in the scope of human rights in such agreements and conventions are rights related to the "right to water". These conventions, which include provisions on issues such as food, health and housing, both directly and indirectly refer to the right to water. Because water, as the basic building block of life, is directly linked to many issues such as clean and sufficient food, health and medical care.

Ünlü (2017) in his article, Right to Water, stated that water resources are adversely affected as a result of the harmful activities of people. These negative developments cause people to be more sensitive to water policies and even the right to water. The right to water is the right of people to access healthy and affordable water (Firdin 2015). In the third article of the Universal Declaration of Human Rights, it is stated that the individual has the right to life. The individual's right to life is directly proportional to the water he/she needs to consume daily. Since humans cannot live without water, the right to water becomes a fundamental human right. In 1994, the Programme of Action of the Conference on Population and Development clearly states that the right to water and the right to protect one's health are included in the right to life (İlhan 2011). Five years after this programme, according to Article 175, paragraph 53 of the General Assembly Resolution 175, clean water is one of the fundamental human rights. According to General Statement 15, the international document was published by the United Nations Committee on Economic, Social and Cultural Rights in 2002. The Committee's report states that "Every individual living in the community has the right to adequate, safe, physically accessible and affordable water for personal and domestic use". However, the right to water cannot be demanded directly from the state. The state is obliged to provide clean and safe drinking water in a way that the society will pay for it (Kartal 2009).

UNDP also defines water as a human right in international treaties. International human rights laws includes specific obligations regarding access to safe drinking water. These obligations require access to clean drinking water in quantities necessary for personal and living space uses, defined as drinking water, sanitation, food and personal; water for household hygiene. These obligations require states to maintain the quality of sanitation to ensure access to adequate sanitation (OHCHR 2010).

Narin (2016) discusses the right to water as a human right and the privatization of water. Water was recognized as a human right by the UN Committee on Economic, Social and Cultural Rights in 2002 with General Comment 15. In the following years, the right to water has been the subject of many international conferences as well as constitutionally recognized in national law. Today, the right to water has been recognized by more than 160 countries and constitutionally protected by 28 countries. Since water is essential for life, the demand for the right to water in terms of access to sufficient water is not so different from the demand for the right to life. For this reason, it is crucial that the regulations of the right demand, which have started in national-international law, are reflected in constitutional and legal regulations.

In Narin's (2016) article, the right to water was included in human rights law with General Comment No. 15, which was introduced at the 29th session of the UN Committee on Economic, Social and Cultural Rights in Geneva (Topçu 2009). Accordingly, the right to water is an integral part of the right to adequate housing and adequate nutrition under Article 11 and the right to health under Article 12. In General Comment No. 15, it is stated that water is a basic public good for life and health, a prerequisite for the realization of other rights, and the right to water is defined as follows: "The right to water as a human right stipulates that everyone has the right to adequate, safe, acceptable, physically accessible and affordable water." It is expressed as follows.

The right, which is expressed as the embodied form of freedom, is the means of realizing freedom (Kaboğlu 1993). The powers recognized as "rights" in the Constitution and laws bring with them the "power to demand", which means that the person can demand the fulfilment of his/her rights by the state or individuals. In terms of the right to water as a human right, individuals can undoubtedly make some demands. However, for this, the basis of this "power to demand" of the person must be established.

In Narin's (2016) article, although it is a generally accepted thesis that international law norms are superior to all domestic law rules, including the constitution (Gözler 2010), some authors distinguish international law from domestic law and argue that the rules in international law cannot be directly applicable in domestic law. Therefore, in order for the right to water, which is widely recognized in international texts, to be claimable, its place in domestic law is important. Turkey has ratified the conventions and directives mentioned in this study. While some of these conventions directly include the right to water, in some texts it is considered among the obligations of the state. Aside from this, the right to water is also considered as a part of the right to life. Therefore, a normative justification can be made in terms of the right to water in all cases; however, what is important here is the impact of these international texts on Turkish law. According to Article 90 of the Turkish Constitution, international treaties have at least the force of law in domestic law. In this respect, the right to water as a human right is not a foreign concept to Turkish law (Şirin 2010). Moreover, when water is considered within the right to life, it imposes both positive and negative obligations on the state. In this case, the state is obliged to fulfil the acts necessary to ensure the use of the right to water as well as eliminating the factors that prevent the use of the right to water (Çiçek 2009).

Constitutions are the fundamental texts that provide the strongest protection for fundamental rights and freedoms. If a guarantee is to be mentioned in terms of the right to water, constitutional protection must be provided first and foremost. Although it is stated that there are many constitutions that include provisions on the right to water in their constitutions, it is stated that the Uruguayan Constitution is the first constitution that recognizes water and sanitation as a human right and explicitly guarantees it (Narin 2016).

2. Animal welfare and rights

2.1. Animal welfare

Animal welfare discipline originates from animal rights and animal protection philosophy. It was only in the later period of time that the subject was handled within the scope of positive animal sciences (Fraser 1999).

Today, many factors play a role in the adoption of legal regulations on animal welfare as a social consensus text. Animal welfare or welfare is a field that has been carried out as a task by practitioners in line with social needs. On the other hand, animal welfare is an issue that concerns all areas and persons related to animals. All kinds of studies on the subject will continue as long as people "need" animals. Considering that the needs of humans and other animal species for each other as parts of the world ecosystem (although the contribution of humans to the functioning of the world ecosystem is not known) will not end, it is clear that studies on the subject will not end (Savaş et al. 2009).

The concept of animal welfare is defined in various ways by many people and organizations. The first official definition of animal welfare was defined as the physical and emotional well-being of the animal by the Brambell Committee (Thorpe 1965) established by the British government in 1965. In another definition, welfare includes not only the physical conditions of the animal but also its emotional state (Duncan 2002; Fidan 2012).

If we look at animal welfare from a more general perspective, it can be said that it is a complex definition that includes all components of animal life.

In Bilgili's (2021) article, the Animal Welfare Committee established in 1993 within the UK government listed the 5 freedoms that should be given to animals as follows (FAWC 1993):

- 1- Animals should not be deprived of their needs in the form of hunger, thirst, etc.,
- 2- Animals should not be disturbed by the environmental conditions they are in,
- 3- Protection of animals from bumps, injuries and diseases that cause pain and suffering,
- 4- The ability of animals to exhibit normal behavior and
- 5- Protection of animals from activities or situations that cause fear and stress

As can be concluded all animals should have access to the appropriate water source and feed at intervals appropriate to their physiological needs. The water to be consumed should be clean and of good quality, and animals should be able to access the water source at liberty.

Similarly, there are provisions regarding access to water in the existing laws in Turkey. For example; as can be observed in Article 13 of the "Regulation on the Welfare of Farm Animals" prepared on the basis of Article 9 of the Veterinary Services, Plant Health, Food and Feed Law No. 5996 dated 11/6/2010 and numbered 5996, "All animals are provided with access to fresh water in sufficient quantities and their daily fluid intake needs are met" (Anonymous 2010).

Regulation on the Welfare of Farm Animals

(This Regulation has been prepared based on Article 9 of the Veterinary Services, Plant Health, Food and Feed Law No. 5996 dated 11/6/2010).

Feed, water and other substances

ARTICLE 13

(1) Farm animals are fed in sufficient quantities to maintain their health and meet their nutritional needs and with a suitable feed adapted to their age, weight, behaviour and physiological needs. No animals shall be given food or liquids containing any substance which may cause unnecessary suffering or injury.

(2) All animals are given access to feed at intervals appropriate to their physiological needs.

(3) All animals are provided with access to fresh water in sufficient quantities to meet their daily fluid intake needs.

(4) Feeding and drinking water equipment is designed, constructed and installed in such a way as to prevent contamination of food and water and to minimize the harmful effects of competition between animals.

(5) Except for substances authorized for use by the Ministry for treatment, protection or zootechnical treatment, no other substance shall be administered to animals unless it is shown by scientific studies or experience that the effect of the substance in question is not harmful to the health or welfare of the animal (Anonymous 2010).

Human beings have different abilities to understand, interpret and question the universe and life. This situation causes perceptual differences in analyzing, thinking and reasoning in mental activities. Therefore, scientific approaches are also affected.

2.2. *Animal rights*

According to Arslan & İlgili (2022), the concept of animal rights is defined in a wide range of ways, from views that oppose the use of animals in any way to approaches that approve their use with certain limitations. The main arguments are shaped in contexts such as animals' ability to feel, to feel pain and pleasure, to have interests, to be subjects of life, their moral status and speciesism. Based on these contexts, rights such as the right to life, to be respected, not to be exploited, to be well cared for, to be looked after, to be protected, to benefit from the knowledge of humanity, not to be mistreated, not to be made to suffer, to be killed painlessly and without fear when death is mandatory, to live and reproduce in an environment suitable for its nature, to complete its natural life, not to be abandoned, rest, nutrition, limitation of workload for animals used in various jobs, not to be made the subject of human entertainment, protection of honour and protection of habitats are mentioned (Neumann 2012; Phillips & Kluss 2018).

Sinmez (2022), in his article entitled "The Current Constitutional Position of Animal Rights in the World and Turkey", analyzed the constitutional texts and identified a total of 15 countries (Germany, Austria, Bolivia, Brazil, Gambia, South Sudan, India, Switzerland, Iceland, Libya, Malaysia, Mexico, Egypt, Papua New Guinea, Slovenia) that protect animal rights and include articles that protect these rights in principle.

It is only possible for people to protect and develop their material and spiritual assets by ensuring that they live in a healthy and balanced environment with all other living and non-living things. In this context, the most fundamental duty of humans is to leave a habitable world for future generations by protecting nature and all living and non-living things that are part of it from existing dangers (Akbulut & Çobanoğlu 2020).

Among legal systems, there are three main views on whether animals should be accepted as a subject of law, and these are listed as follows (Koçhisarlıoğlu & Erişgin 2013);

- The view that animals are recognized as property (object),
- The view that animals are recognized as person-like,
- The view that animals are recognized as persons.

The view that accepts animals as things (objects) positions animals within the human-centered understanding of environmentalism. In anthropocentric environmentalism, humans are placed at the center of the environment and everything in nature is positioned according to humans. In this understanding, the human being is considered as an entity that is at the top of

the species in a hierarchy, separate from nature, and independent from the natural relations to which other species are connected (Keleş et al. 2012).

The human-centered understanding of environmentalism reveals the justification for the protection of the environment based on human beings. Although the necessity of protecting the environment is emphasized in this understanding, this necessity is not based on a conception of nature that deserves to be protected for its own sake, apart from human purposes. As such, environmental policy based on anthropocentric environmentalism aims to protect only those assets that need to be protected in terms of instrumental values corresponding to human goals. An ecological problem is considered as a policy problem to the extent of the negativities, threats and dangers it poses for human beings. In cases where there is no benefit for human beings, such an environmental policy neither identifies an ecological problem nor resorts to any protective measures (Keleş et al. 2012).

According to those who proceed from this idea, animals should be accepted as goods by legal systems and there is no concept of animal rights. Therefore, it is impossible for animals to be subjects of law (Akbulut & Çobanoğlu 2020).

Today, it is frequently stated that the legal status of animals is not property, in other words, they should not be subject to similar provisions as tables, clothes, automobiles. It is even argued that animals can also have rights within the framework of certain principles (Akbulut & Çobanoğlu 2020).

This view proposes to create a special legal personality for animals instead of recognizing a personality by likening animals to humans as a method to be applied. This is because the characterizations based on the concept of person refer to the animal being the subject of rights, while the characterizations based on the concept of property refer to the animal being the object of rights. In attempts to define animals based on the concepts of "person" and "thing", which are two important concepts of law, animals are referred to with terms such as "person-like" or "atypical thing" (Cumalıoğlu 2017).

The view that recognizes animals as persons is based on theories based on the animal rights approach. It can be said that the animal rights movement emerged as a result of sensitivity towards the suffering of animals. The living conditions imposed on cattle, sheep and poultry in order to obtain more meat, more milk and more eggs in animal farms, the slaughter of lambs in the early period, and the use of animals for sports purposes causing pain to humans (Ünder 1996).

The proponents of this view proceed from the criterion of "suffering" and state that all living beings with a nervous system and a brain can suffer. Since animals, just like human beings, have an interest in not suffering, it is stated that humans and animals have equal rights. According to this understanding, every living being that can enjoy pleasure and feel pain should be recognized as a subject of law, without any distinction between human or animal. Otherwise, if the interests of animals are ignored or deemed insignificant just because they are not of the same species as humans, a racist and sexist logic is adopted (Özgür 2010).

In Turkey, efforts to make a law on the protection of animals were first initiated in the 1980s, and it was not until 2004 that the idea in question was realized. When the historical process is analyzed, while the activities related to stray animals were within the duties and responsibilities of municipalities until 1991, with the establishment of the Ministry of Environment, the responsibility was divided between these two institutions. While the Ministry of Environment was tasked with the preparation of the legal framework, making strategies and plans related to stray animals and supervision issues, the responsibility for the implementation of the law to be enacted was left to the municipalities. In 1995, two separate draft laws of the protection of animals were prepared, one by the General Directorate of Environmental Protection and the other by the State Ministry responsible for human rights, but neither of these two drafts was enacted (Menteş & Osmanağaoğlu 2009). This objective could only be realized with the adoption of the Animal Protection Law No. 5199 on 24.06.2004.

Article 4/1-(a) of the Law states that "All animals are born equal and have the right to live within the framework of the provisions of this Law" and Article 4/1-(b) states that "domestic animals have the freedom to live in the living conditions specific to their species. The lives of stray animals should be supported just like owned animals", and in Article 4/1-(c); "Necessary measures should be taken for the protection, care and care of animals and to keep them away from maltreatment" (Cumalıoğlu 2017). Article 14 of the Law titled "Prohibitions" regulates the acts considered as misdemeanors within the scope of the Law, and these acts include; intentionally mistreating animals, cruel treatment, beating, starving, exposing to extreme heat and cold, neglecting their care, causing physical and psychological pain, forcing animals to perform acts that are clearly beyond their strength, giving animals addictive food or drinks such as alcohol, cigarettes, drugs, distributing animals other than animals raised for slaughter as prizes, bonuses or premiums, and torturing animals.

When evaluated in general, it can be said that in addition to the results that can be perceived as animal rights in Law No. 5199, there are approaches to the continuity of biological and physical phenomena specific to the species of animals in the ecosystem

Similarly, Law No. 5996 on Veterinary Services, Plant Health, Food and Feed published in the Official Gazette No. 27610 dated 13 June 2010 sets out the provisions on the protection and welfare of animals. Article 9 of the Law No. 5996 contains the

following provisions (Anonymous 2010);

(1) Animal owners or persons responsible for animal care are obliged to meet the shelter, care, nutrition, health and other needs of animals in order to ensure animal welfare, and to take the necessary measures against the negative effects that the animals under their responsibility may have on human, animal and environmental health.

Environmental Law (Anonymous, 1983) No. 2872 contains some provisions protecting endangered species. In Article 9/1-(f) of the Environmental Law titled "Protection of the Environment"; "f) In order to ensure the sustainability of biological diversity, it is essential to protect threatened or endangered species and rare plant and animal species and it is forbidden to trade them in violation of the legislation".

Article 181 of the Turkish Penal Code regulates the act of polluting the environment intentionally, in other words, knowingly and willingly, while Article 182 of the Turkish Penal Code regulates the act of polluting the environment negligently. The aforementioned article is as follows (Anonymous 2004);

(1) A person who negligently causes waste or residues to be discharged into the soil, water or air in such a way as to damage the environment shall be punished with a judicial fine. If these wastes or residues leave a permanent effect on soil, water or air, imprisonment from two months to one year shall be imposed.

In the Turkish legal system, it should not be forgotten that it is necessary to develop laws on the protection and rights of animals, to revise the current situation according to new needs and to raise awareness in individuals and wider society within a hierarchical and systematic scientific discipline.

The lexical meaning of the concept of animal;

Şengül (2019) made the definition of the word animal in his thesis as follows; Sahihi is in the meter of "halecân" with the conquest of ya. It belongs to the classification of words in which a vowel drop is seen as the reason for falling into a galat state. Today it is used as an "animal".

Kamus-ı Türkî gives the meaning of "vitality, life, vitality, ab-1 animal, ab-1 hayat".

In the Ottoman-Turkish Encyclopaedic Dictionary, it has four meanings: The first meaning is "vitality". This meaning almost matches the meaning in Kamus-ı Türkî. The second meaning is "living thing" and the third meaning is "all living things, including human beings". These meanings evoke the concept of human being, which is a part of life, and the meaning event of name transfer is experienced with the part-whole relationship. In the fourth meaning, it is clear that the word has expanded its meaning by adding a semantic element in the form of "foolish man".

There are four meanings of the word in the Grand Turkish Dictionary: The first meaning is explained as "a living creature with the ability of feeling and movement, acting with instincts", the second meaning is "mindless, emotionless, rude, harsh (person)", and there is a transition to grammatical meaning by giving the meaning of "mindless, emotionless, rude, harsh (person)". (noun→adjective) by changing the word type (noun→adjective), meaning expansion occurred in the lexeme with the change of live→mindless. The third meaning is "a word said to someone who is angry", which can be considered as an insult. Although slang generally covers the uses of a language outside the written language, we can observe this meaning in the dictionary since these uses are one of the sources that dictionaries feed on in terms of words and meaning. The fourth meaning is stated to mean "a creature used in various services such as horse, donkey, mule".

While scientists have made many definitions concerning animal welfare, it has been emphasized that animals have emotions and the importance of both physical health and mental health.

In the Protocol on the Protection and Welfare of Animals (Amsterdam Treaty 1997), animals are recognized as "sentient beings" (Antalyalı 2007; Ünal 2007).

In an article entitled "An evaluation on the protection and welfare of animals in hadiths" published by Sinmez et al. (2015); there are provisions (albeit in small numbers) about animals in the Torah, Psalms and the Bible that animals have rights as living beings (Armutak 2008a). The fact that seven sūrahs in the Qur'an, which consists of one hundred and fourteen sūrahs, have animal names and deal with animals, and that this constitutes 6.14% of the total of the holy book, is considered among the reasons for the importance given to animals and the compassion shown towards them in the Islamic religion and Islamic societies (Armutak 2008b). According to the above, it is concluded that there are provisions about animals in all divine religions, but more importance is given in Islam and the Qur'an.

Körbalta (2019) in his article, in terms of Turkey's national security, food, environment, economic and social security in the future may threaten this process can be reversed by stopping. Ensuring that water resources are more usable and sustainable in terms of quality is possible through effective environmental management. Within the scope of the presentation of water resources,

which are conserved in terms of quantity and quality, to users, water should be presented as a "human right" without forgetting that water is a basic requirement for life. Therefore, it can be said that water is a fundamental right and need for all living things.

3. Conclusions

In recent years, environmental problems have become one of the most discussed issues in public opinion as the effects of natural events, which are estimated to threaten humanity, are observed. The life of all living things is also endangered in nature whose balance is disturbed. If necessary, precautions are not taken, it is inevitable that water resources will also be affected.

Considering that the majority of people in many countries today face water shortage, it can be observed how important the dimensions of the danger are. Failure to take action and plan accordingly in terms of the efficient use of water as well as ensuring easy access to water now will ensure that we lack the necessary water sources and water availability for the continually growing global population. Therefore, people should be made aware of the importance of protecting the ecological balance with all stakeholders, the necessity of the rights of all living beings to access and use water without discrimination, the necessity of protecting existing water resources, and the understanding of animal welfare and animal rights.

From the point of view of the responsibility and competence of the universe, it should never be forgotten that the rights of each of the living species sharing the world with all their formations should be respected in accordance with their own biological characteristics - balanced - understanding behaviour. We have to be more careful about the cosmos to be bequeathed to future generations. For this reason, the concepts of the right to water, animal welfare, and animal rights should be evaluated in a multidimensional manner with a holistic approach within the framework of equality and respect.

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