



senex

ASSOCIATION FOR
AGING STUDIES

SENEX REPORT

THE IMPACT OF CLIMATE CHANGE ON THE RIGHTS OF OLDER PERSONS IN TURKEY

Özgür Arun^a, Banu Karademir Arun^b, Seda Kocabiyik^c

^a Ph.D., Chair of Senex: Association for Aging Studies, E-Mail: arun@akdeniz.edu.tr

^b M.A., Board Member of Senex: Association for Aging Studies

^c M.A., Member of Senex: Association for Aging Studies

INTRODUCTION

Climate change poses a threat to life on earth. Humankind is both the cause and victim of the destruction of nature. Nonetheless, it is the most vulnerable groups, namely older people, women, children, people with disabilities, the poor and ethnic and religious minorities who are faced with the most adverse effects of climate change.

Therefore, the United Nations Human Rights Council, in Resolution no. 44/7¹, has asked the Office of the United Nations High Commissioner for Human Rights (OHCHR) to conduct, with input and participation of states and relevant stakeholders, a study on the promotion and protection of the rights of older persons in the context of climate change.

Consequently, OHCHR has launched an appeal to assess violations of the rights of older persons, one of the most vulnerable groups to experience adverse effects of climate change, including particularly older persons with disabilities and older women.² This appeal aims to:

- i. identify rights violations by country, and
- ii. share the best practices on the elimination of rights violations and lessons learned from such practices.

In response to OHCHR's appeal, Senex: Association for Aging Studies has prepared an analytical report titled "Senex Report: The Impact of Climate Change on the Rights of Older Persons in Turkey". Senex report on Turkey addresses questions posed under the seven headings of the OHCHR report regarding rights violations of older persons in the context of climate change.³

¹ <https://undocs.org/en/A/HRC/RES/44/7>

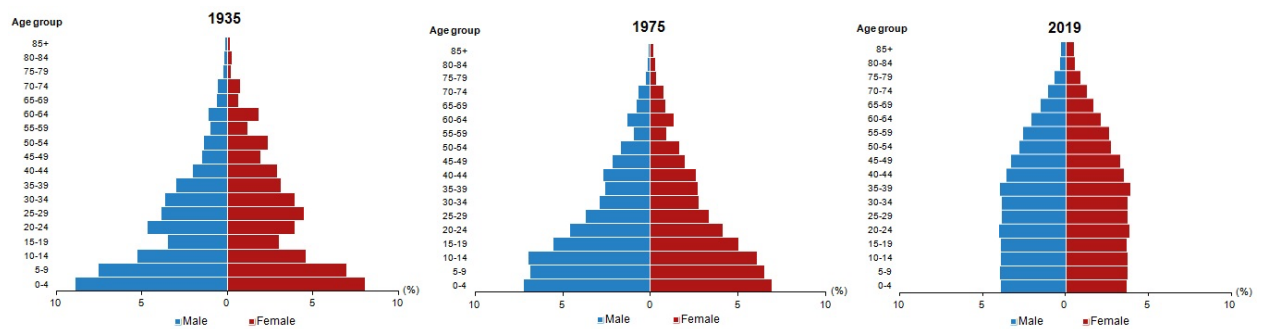
² <https://www.ohchr.org/EN/Issues/HRAndClimateChange/Pages/RightsOlderPersons.aspx>

³ https://www.ohchr.org/Documents/Issues/ClimateChange/RightsOlderPersons/QuestionnaireRightsOlderPersons_EN.pdf

SECTION 1

Population Ageing in Turkey: Evidence

Turkey is losing its relatively young population at a rate more rapid than most of the other societies in the world. Turkey's population has undergone a transformation during the modernization quest set in motion with the proclamation of the Republic, to the extent that the population of older persons surged from 3.5% in 1935 to 10% by 2020. Turkey's population has seen a rapid influx of migration from rural to urban areas in the last century. Birth rates have declined while life expectancy at birth has increased. Today, Turkey is an ageing society.



Graphic: Population Pyramid of Turkey, 1935-2019

Source: TurkStat- Turkish Statistical Institute, Older Persons in Statistics, 2019.

Population ageing is not a problem. Nonetheless, for countries like Turkey the main problem is becoming older prior to becoming wealthy. The ageing rate in Turkey is so fast that the demographic transformation adversely affects the social and economic development processes. Turkey's struggle to maintain a sustainable balance while engaging and keeping the active population employed, coupled with the rapid transformation of the population structure during the development process puts extra pressure on the environment. Problems exist in the fulfillment of fundamental human rights, including access to clean water, sustainable food supply, nutritional sustenance, health services, employment, participation in decision-making mechanisms and the right to representation. There is a need to implement inclusive policies that achieve social and economic development in a sustainable balance, which in turn, reduces pressure on the environment. Inclusive policies may help rectify societal inequalities based on gender, class, ethnicity, age, and geographical location. However, to enable social, economic, and environmental development to proceed in a sustainable balance, all institutions in a society should embrace a commitment to inclusive and egalitarian services.



senex

ASSOCIATION FOR
AGING STUDIES

SECTION 2

Climate Change and Older Persons: Why Older Persons Matter for Climate Change?

The United Nations Framework Convention on Climate Change⁴ (UNFCCC), the first international convention on climate change ratified by 196 states and the European Union (EU), entered into force on March 21, 1994. Turkey became a Party to the Convention on March 24, 2004.⁵ State Parties to the Convention have an obligation to reduce greenhouse gas emissions, collaborate on research and technology and protect greenhouse gas sinks (for instance forests, oceans, and lakes).

However, all countries, regardless of whether they are bound by international obligations, are affected by climate change. Therefore, climate change is a global problem that cannot be ignored. Turkey is also tackling adverse effects caused directly or indirectly by climate change. Impacts of climate change take a heavy toll on older persons, particularly older women and older persons with disabilities, all of whom are among the most vulnerable groups in society.

In particular, older persons living in rural areas are directly affected by the causes of climate change and the climate crisis. Agricultural activities and sustainable food production are among the production areas most affected by climate change. Older populations in rural areas are employed in the agriculture sector. Most older people are trying to make a living by producing small commodities in the agricultural sector. They engage in household production in the absence of economic power to use refined technologies and the technical know-how and competence required by such technologies. Agricultural activity, undertaken either for livelihood or household consumption, is the main provider of basic food needs. In addition, the products cannot turn into an economic value due to limited storage capacities. The quality of the land used for household production and livelihood is affected by climate change. Production engagement as such is maintained in a very fragile balance.

Indeed, hydroelectric power plants, thermal power plants, dam constructions and mining directly threaten the fragile balance of agricultural activity in rural areas. For example, one third of the beekeeping activity in the Aegean region has terminated since 1990 (Öztürk, 2009). The rural population which has rapidly aged, especially after the internal migration of the 1980s, currently appears to be forced into abandoning agricultural activities due to climate change.

The population making a living from agriculture is relocating as once-income-generating agricultural activities have either lost their profitability or have been terminated. The disintegration of rural areas causes older people who have moved to urban areas to become dependent on either another person

⁴ <https://unfccc.int/process-and-meetings/the-convention/what-is-the-united-nations-framework-convention-on-climate-change>

⁵ <http://www.mfa.gov.tr/bm-iklim-degisikligi-erceve-sozlesmesi.tr.mfa>



senex

ASSOCIATION FOR
AGING STUDIES

or an institution. How will older persons, who do not have inclusion in comprehensive social security due to the nature of employment in the agriculture sector, be able to meet their care needs in urban areas? How will older persons who have fallen into poverty and moved to the city meet their basic food needs?

Old age poverty in Turkey has reached 17% (TUIK, 2019). Older people in poverty and who lack social security are more vulnerable. Widowhood is a strong indicator of poverty among older women. Families strive to take care of older women and men living alone in poverty. It is again mainly the women in poverty who provide care in households (Arun & Holdsworth, 2020). Diseases, disability and psycho-social health problems are becoming more prevalent among older people in poverty (Arun, 2020). Older people in rural or urban areas, particularly older people with disabilities and older women, have rather limited access to health services, social care, and comprehensive social services. All of these factors point out why the climate crisis most heavily impacts older persons.



senex

ASSOCIATION FOR
AGING STUDIES

SECTION 3

The Impact of Climate Change on the Rights of Older Persons

Sustainable Development Goals Indicators and the 2030 Agenda reveal that development is only possible as long as it is inclusive of all age groups. Empowering older persons in all areas to ensure their participation in economic, social, and political life is the key requirement to tackle inequalities. To this end, it is essential to understand to what extent these have been affected by climate change. In this section, *Senex: Association for Aging Studies* opens up the discussion on how older persons are affected by climate change, in response to questions⁶ posed under the seven headings of the OHCHR questionnaire.

1. What are the adverse effects of climate change on the full and effective enjoyment of the human rights of older persons?

Turkey is rich in natural resources. Yet, the destructive desire for development, adamantly embraced with respect to using natural resources, undermines the right to access clean air, water, and food. Access to clean air, water and food is a basic requirement to live a decent and dignified life free from poverty and social exclusion. Yet, in Turkey, particularly agricultural land, forestland and watercourses are destroyed by thermal power plants, hydropower plants and mining. Destruction of agricultural land significantly affects sustainable food production. Damage to forestland or streamside ecosystems or poor management thereof further exacerbate the effects of climate change.

The health of streamside and forestland ecosystems are necessary for bringing about emissions reductions and in the fight against climate change. In fact, the forestlands in Turkey are estimated to have a potential of reducing emissions by a hundred million tons per year (Tohum Derneği, 2020). As streamside ecosystems are found within agricultural lands, they hold the potential to effectively improve water quality. They also significantly contribute to ecological diversity. Therefore, any damage to agricultural land, streamside systems and forestlands would imply the loss of components of the ecology system.

Turkey is home to many agricultural lands, streamside systems and forestlands that have been damaged in the last three decades. The following case studies serve as examples:

⁶https://www.ohchr.org/Documents/Issues/ClimateChange/RightsOlderPersons/QuestionnaireRightsOlderPersons_EN.pdf



senex

ASSOCIATION FOR
AGING STUDIES

Residents of Bergama have waged a year's long campaign against a gold mining project involving cyanide leaching. To this day, peasants pursue their rights against the first gold mine established in the middle of 17 villages in Bergama in 1989. Meanwhile, the mining corporation is the main reason for the social segregation in Bergama caused by conflicts and disagreements among local residents over gold mining activities. A similar project hazardous to forestland and streamside ecosystems is underway in Kirazlı Village near Kaz Mountains. Thousands of trees are cut down for the sake of mining, inflicting severe damage to the ecosystem⁷.

Turkey meets a certain amount of its energy demand from coal-fired thermal power stations.⁸ Thermal power stations run on lignite from fossil sources. Lignite coal consumption is hazardous to nature. Use of lignite coal results in acid rains and water effluents that are harmful to human health and detrimental to nature and agricultural production.⁹ The Yatağan Thermal Power Plant in the Aegean Region has had a detrimental impact on the environment, damaging the production of olives, pistachios, figs, almond trees, vineyards, and vegetables growing around Yatağan and Milas.

In Turkey, due to their technical qualities, hydroelectric power plants (HPP) have become the preferred power source in recent years to meet the increasing energy demand.¹⁰ HPPs are considered to be a cleaner and renewable source of energy compared to fossil fuels.¹¹ However, in reality, HPPs have a damaging impact on forests in that they require vast land resources for construction; thereby detrimentally affecting the biodiversity near rivers, riverbeds, and its surroundings. The fact that HPPs are a renewable source of energy does not mean that they are sustainable. Local residents of Yusufeli-Demirdöven Village in Artvin and Korgan-Balamir Village in Ordu have deep concerns about plans for two HPP projects and their damaging impact on the environment.

Loss of public spaces and expropriation without public consultations in fact means dispossession. Indeed, new dams, power plants, airports or any other structure constructed by destroying forestland, streamside systems and agricultural land does not mean that the public will own a property again. As a matter of fact, narratives about nature written by older men and women in the Eastern Black Sea region reveal how the rights of all generations are violated. Research titled "Bizim Dereyi Kim Çaldı" ["Who Stole Our Stream"] (Akbaş, Bozok & Bozok, 2016) relays to us losses inflicted by dispossession that include lifestyle and social memory losses.

⁷ See BBC news report at <https://www.bbc.com/turkce/haberler-turkiye-50045879>

⁸ The network of thermal power plants in Turkey is available at:

<https://graphcommons.com/graphs/5d293d74-f1bd-46fe-b673-a597fcd0b21d?auto=true>

⁹ <https://www.ttb.org.tr/eweb/yatagan/2.html>

¹⁰ The HES network in Turkey is available at: <https://graphcommons.com/graphs/93d05f5b-6d7a-4fe7-9559-4177d67092e7?auto=true>

¹¹ https://www.wwf.org.tr/ne_yapiyoruz/ayak_izinin_azaltilmasi/su/yenilenebilir_enerjinin_surdurulebilirligi/



senex

ASSOCIATION FOR
AGING STUDIES

The stigmatization and exclusion of people who act against the loss of natural areas or resources in pursuit of their rights is a common phenomenon. Inability to participate in decision-making mechanisms and problems faced with access to justice lead to the public exclusion of people who seek their rights due to a perception that they are “against the state”. Stigmatizing people who pursue their rights in the face of dispossession and environmental hazards as “dangerous”, “a menace against national security” or “unreliable” is a discriminatory rhetoric. Older people are also displaced as a result of this process; they lose their livelihoods and social security without effective access to justice and become exposed to discrimination.

- 2. Could you please describe any specific policy, legislation, practice, or strategy that addresses the nexus between climate change and the rights of older persons. In particular, could you please share any information available related to policies that ensure the participation of older persons in the design, planning, implementation and monitoring of climate change mitigation and adaptation measures; learning from the knowledge and experience of older persons; as well as supporting the independence and autonomy of older persons? Could you please note and identify any relevant mechanisms for ensuring accountability for these commitments, including their means of implementation?**

The Ministry of Agriculture and Forestry, the Ministry of Environment and Urbanisation and the Ministry of Family, Labor and Social Services could lead the efforts to develop a specific policy, practice or strategy by forming a nexus between older people in Turkey and climate change. However, these institutions are not known to have developed any such specific policy, practice or strategy indicating the nexus between older people and climate change.

In order to establish whether there are any such practices in place, the Development Plan of Turkey, a policy document containing Turkey’s strategic plans, was examined. Development Plans are updated every five years in Turkey. The 11th Development Plan was prepared in 2019.¹² The 11th Development Plan covering the years between 2019-2023 is the latest strategic document. The 11th Development Plan does not specify a practice addressing the nexus between older people and climate change, nor does it develop any perspective on the matter. On the other hand, among the few civil society organizations in Turkey that work on ageing, old age and older people, no policy or practice regarding old age in the context of climate change that particularly centers on older persons was identified.

¹² https://www.sbb.gov.tr/wp-content/uploads/2019/11/ON_BIRINCI_KALKINMA-PLANI_2019-2023.pdf



- 3. Are there any relevant data that captures how the adverse effects of climate change have affected older persons, taking into account multiple and intersecting forms of discrimination (i.e., discrimination based on a combination of multiple grounds, including disability, gender, race, color, sex, language, religion, nationality, and migration status)-including in older age cohorts? Could you please share a summary of such data?**

It is not possible to refer to a specific study on the discrimination faced by older people in the context of climate change. The body of literature on old age usually focuses on the dichotomy between illness and wellness (Arun, 2018). There appears to be few qualified studies addressing the societal dimensions of discrimination faced by older persons.

The first of these studies was conducted by YADA Foundation. YADA Foundation, in its 2018 study titled “Elderliness, Envisagement and Practices in Turkey”,¹³ examines the perspectives of middle age and older populations on old age, as well as their experiences, plans, investments, and potentials. This study also includes questions on age discrimination. Findings of the study demonstrate that 6.5% of older persons in Turkey face age discrimination.

Another study is Antalya Aging Study (AAS)¹⁴ conducted to describe the living conditions of people aged 55 and over in the province of Antalya. AAS is a longitudinal study that has been repeated three times respectively in 2013, 2016 and 2019/20.¹⁵ The main purpose of the study is to examine the population over 55 years of age living in the city, addressing their ageing process, relations with the city, their views on rights and freedoms as well as their perceptions of the future and expectations. Research findings may provide assistance and guidance on improving services for local governments based on data, evaluating current services, monitoring the participation of older persons in the city and determining problems with respect to rights and freedoms. In this regard, chapter six of the research report addresses “age perception and discrimination”. Among participants, 11% of older persons stated that they were discriminated against on grounds of age, 4% on grounds of gender, 5% on grounds of ethnic identity, 8% on grounds of belief and 16% on grounds of political views. Upper class older women stated that they faced discrimination mostly on grounds of gender while upper class older men stated that they were discriminated against mostly on grounds of political views. Older people in poverty claimed that they generally suffered from ageism. Bias and discrimination against and unfair treatment towards older people was found to become prevalent as they become unable to generate wealth.

¹³ <https://www.heryasta.org/wp-content/uploads/2019/11/avivaSA-kitap-mobil-27-03.20.pdf>

¹⁴ <http://www.senex.org.tr/yayinlar>

¹⁵ AAS received support from European Union programs in 2020 and completed its third term. In 2020, Senex Association published the results of the study including its first findings in a book.



In April and May of 2020, another study conducted during the Covid-19 pandemic is “Perception of Ageing and Rights of Older Persons in Turkey during Corona Crisis”. According to this study, supported by Raoul Wallenberg Institute Turkey Program, ageism in Turkey has risen to 8%. Aiming to foster a conception of multiple discrimination, based on data, the study reports rights violations suffered by older people.

All these current findings on perception of ageing, ageism and rights of older people notwithstanding, no specific national data on the adverse effects of climate change on older people were found.

4. Are there any mechanisms and tools that are in place to measure and monitor the impacts of climate change on the full and effective enjoyment of the human rights of older persons? Please describe in detail.

It is not possible to refer to a mechanism or a tool in place in the Republic of Turkey to measure and monitor the impacts of climate change on the full and effective enjoyment of the human rights of older persons.

Turkey made amendments to the Law on municipalities twice in 2005 and 2012 to effectively respond to inequalities at the local level. The main purpose of these amendments was to provide effective services to four vulnerable groups at risk of poverty, including older persons. However, due to the limited finance and human resources of local governments, it was not possible to effectively respond to the inequalities at the local level. Delegation of power from the central to the local governments has led to a fragmentation of services, which in turn triggered new inequalities (Arun & Holdsworth, 2020). In the next 10-15 years, fragmentation of services will be a highly critical challenge to take on in the response to deepened poverty at the local level in Turkey. It is essential to strengthen the capacity of local governments in order to overcome these challenges. Furthermore, it is an absolute necessity to provide support to local governments so that they may develop budgeting responsive to gender, age, and class.

A good practice for providing access to services in Turkey is digitalization studies.¹⁶ The platform in place offers access to available services with a citizenship number and password. Information and Communication Technologies (ICT) is an important step to ensure integration of fragmented services. Moreover, ICT could be activated to reduce regional inequalities. Nevertheless, it is not feasible for groups who do not have digital tools and thus lack the competency of utilizing them to access the services provided in a digital domain. Older women and men at risk of poverty have rather limited

¹⁶ <https://turkiye.gov.tr>



senex

ASSOCIATION FOR
AGING STUDIES

ICT access and competency. If ICT is effectively utilized to reduce inequalities, then efforts should simultaneously be made to achieve digital transformation, taking into account conventional inequalities. To ensure the full and effective enjoyment of the human rights of older persons, a welcome initiative would be, as is the case for other generations, to promote digital literacy among older persons as well as their ICT access and competency.

Indeed, it has been possible in Turkey to provide online education for children during the Covid-19 pandemic. The Ministry of National Education quickly developed online education platforms¹⁷ and ensured their widespread and effective use (Education Information Network-EIN). For instance, EIN support centers were established nationwide to ensure that children without access to internet at home can still get an online education and do not fall behind; students can continue their education free of charge at 1,429 support centers nationwide.¹⁸ In a similar vein, an initiative could be developed to ensure that older persons effectively enjoy such rights. Training and information networks set up in provinces and districts for older persons without access to internet at home could contribute to spreading digital literacy.

5. What are the examples of good practices and challenges in the promotion, protection, and fulfillment of the human rights of older persons in the context of the adverse effects of climate change, including any age-appropriate or sensitive support services that are provided?

Four local governments in Turkey (Antalya-Muratpaşa; İstanbul-Kadıköy, İstanbul-Beşiktaş, Mersin Metropolitan Municipalities) have become members of the World Health Organization “Age-friendly Environment Network”. These four local governments have started to work on creating an age sensitive and age friendly environment. Muratpaşa Municipality is working to ensure different generations participation in decision making mechanisms by setting up councils for children, young people, and older people.¹⁹ Currently, it is not possible to assert that older people are present in decision-making processes in Turkey except for some limited cases at the local level. Still, it is important to consider the rights and vulnerabilities of older people even when they cannot be a part of decision-making processes (HelpAge, 2015).

Historically speaking, baby boomers are the first generation to have experienced the phenomenon of consumer society and also the first to witness the first carbon footprint. Baby boomers’ contribution is of paramount importance as they are part of the society that created the potential causes of climate change in the first place (Haq et al., 2010) and they are also prominent supporters of the

¹⁷ <http://www.eba.gov.tr/>

¹⁸ <https://www.meb.gov.tr/eba-destek-noktalar-uzaktan-egitime-erisimin-onundeki-engelleri-kaldiriyor/haber/21553/tr>

¹⁹ <https://www.muratpasa-bld.gov.tr/haber/60848/3/yasli-meclisi-secimlerini-yapti>



senex

ASSOCIATION FOR
AGING STUDIES

steps taken to achieve climate justice. Consequently, it is critical that the baby boomer generation participate in the decision-making processes. Still, in the context of climate change, it is important to ensure participation of all generations in decision-making processes in order to identify problems and achieve climate justice. Sustainability of decision outcomes requires inclusive decision-making processes.

On the other hand, developments unfolded in the aftermath of the Covid-19 outbreak indicate two main challenges for achieving climate justice in Turkey. Firstly, local governments lack awareness on providing rights-based services. In the aftermath of it's imposing an indefinite and immoderate stay-at-home order²⁰ on people age 65 and over, local governments have failed to develop any strategies on how to provide services to older persons. Consequently, older persons have had problems in accessing clean air, clean water, adequate food, and educational and health services. Some local governments have banned older persons from using public transportation. Some local governments have disassembled park benches to prevent older persons from sitting on them as a resting place. Older persons have been deprived of their rights in access or use the city. In a time of crisis, local governments have not known how to provide services to older persons.

A second challenge in future years will be regarding the right to access information. Access to qualified information in an emergency is a main priority in the provision of rights-based services in times of crisis. Yet, older persons in Turkey have not only been locked in their homes, they have not had access to qualified information (Binark, Arun, Özsoy, Kandemir & Şahinkaya, 2020). Irregular information and infodemic during the lockdown periods have prevented many older persons from accessing their fundamental rights.

6. What are examples and good practices that highlight international and multilateral cooperation and approaches that are implemented in close consultations with the active involvement of older persons, including through their representative organizations?

There are not any examples to give in response to this heading that shows that older persons enjoy their rights effectively and widely.

7. What additional action could be useful to support climate action that promotes the full and effective enjoyment of the rights of older persons?

It is of paramount importance in Turkey that older persons participate in decision-making mechanisms and make their authentic voices heard, particularly in local governments. In addition,

²⁰ See the Ministry of Interior Circular at <https://www.icisleri.gov.tr/65-yas-ve-ustu-ile-kronik-rahatsızligi-olanlara-sokaga-cikma-yasagi-genelgesi>



senex

ASSOCIATION FOR
AGING STUDIES

extensive training initiatives may be planned in collaboration with the Union of Municipalities of Turkey (UMT) to raise awareness of local governments on age discrimination. UMT may disseminate awareness training materials on age friendly environments and services in order to build the capacity of local governments.

TEMA Foundation is a civilian initiative in Turkey working on the topic of environment and climate. TEMA Foundation is the first Turkish civil society organization to be accredited to the United Nations Framework Convention on Climate Change (UNFCCC) as an observer. This accreditation allows the Foundation to follow local developments regarding climate change and hold sway on processes. Nonetheless, Turkish civil society work on climate change has not yet established a connection between climate change and older persons or their rights. Similarly, civil society organizations working on ageing in Turkey have not developed a concrete insight on the matter. Support could be offered to facilitate social dialogue between both civil society initiatives. Civil society organizations focusing on ageing could be supported to obtain UNFCCC accreditation. Thus, it may be possible to foster a social dialogue between civil society initiatives focusing on ageing and those working on climate change and thereby establish a common network.



senex

ASSOCIATION FOR
AGING STUDIES

References

Akbaş, M., Bozok, M. & Bozok, N., (2016). “Bizim Dereyi Kim Çaldı?: Doğu Karadeniz’de Yaşlı Kadınlar ve Yaşlı Erkeklerin Doğa Anlatıları”, In C. Aksu, S. Erensü & E. Evren (Eds.), *Sudan Sebepler: Türkiye’de Neoliberal Su-Enerji Politikaları ve Direnişler* (247-268. ss.). İstanbul: İletişim Yayınları.

Arun, Ö. (2020). *Antalya Yaşlılık Araştırması Üçüncü Dönem, 2019 / 2020 Temel Bulgular ve Yerel Yönetimlere Öneriler*. Yaşlanma Çalışmaları Derneği Yayınları, Antalya.

Arun, Ö. (2018). Türkiye’de Yaşlanma Çalışmaları Dün, Bugün, Yarın. *Akdeniz İnsani Bilimler Dergisi*, 8(2), 41-61.

Arun Ö., & Holdsworth J.K, (2020). Integrated Social and Health Care Services Among Societies in Transition: Insights From Turkey. *Journal of Aging Studies*, 53, 1-7.
<https://www.sciencedirect.com/science/article/abs/pii/S0890406520300207>

Binark, M., Arun, Ö., Özsoy, D., Kandemir, B., Şahinkaya, G. (2020). *Covid-19 Sürecinde Yaşlıların Enformasyon Arayışı ve Enformasyon Değerlendirmesi: TÜBİTAK SOBAG 120k613 No’lu Araştırma Projesi*. Yaşlanma Çalışmaları Derneği Yayınları, Antalya.

Haq G., Dave Brown, Sarah Hards (2010). *Older People and Climate Change: The Case for Better Engagement*. Stockholm Environmental Institute

HelpAge International (2015). Position Paper, Climate Change in an Aging World.
<https://www.helpage.org/newsroom/latest-news/cop21-helpage-releases-position-paper-on-adapting-to-climate-change-in-an-ageing-world/>

Öztürk Ş. Vd. (2009). Küresel ve Ulusal Politikaların Yerel Tarım Üzerindeki Etkisi: Muğla Köyleri Örneği. *Gaziantep Üniversitesi Sosyal Bilimler Dergisi*, 8(1), 157-176.

Tohum Derneği, (2020). Akarsu Kıyı Ekosistemleri İyi Yönetim Uygulamaları Mevcut Durum Analizi Raporu. <https://www.tohumdernegi.org/wp-content/uploads/2020/03/Mevcut-Durum-Raporu.pdf>
Date of access, 23 December 2020.

TurkStat (2019). *İstatistiklerle Yaşlılar, 2019*. <http://www.tuik.gov.tr/PreHaberBultenleri.do?id=33712> Date of access, 19 December 2020.