

**1st Conference on
Mediterranean
Studies**

**Renewable Energy and
the Environment:
Social, Political and
Economic Dimensions**

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Yaşar University
Center for Mediterranean Studies

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Preface

As neoliberal capitalism widens and deepens, conflicts around capital accumulation and competition for profit-making continue to create various types of problems both for the mankind and the nature. While COVID-19 causes severe human suffering, rivalry among companies for vaccines and medications as well as intellectual property rights endure. Climate change poses one of the greatest challenges to our survival; however, only a few questions or attempts to re-shape the global trade structure are on the table. Whereas many, including children, suffer from malnutrition in various corners of the world, significant time and effort is put into high-level diplomatic cocktail organizations which not only reproduce the same unjust global governance but also produce a significant amount of food waste.

As our globalized world remains full of injustices in the 21st century, we can come up with countless amount of sentences like those above. Nowadays, one of such struggles has captured the beautiful Mediterranean Basin, where good food, big blue waves, shiny sun, tasty olives and energetic people should have been on the forefront instead. Therefore, as Yaşar University Center for Mediterranean Studies, we organize an academic conference to bring together scholars to critically elaborate on the current situation in the Mediterranean and offer solutions not only from a brown perspective but also from green and blue ones.

As energy politics remains a contested issue in the Mediterranean Basin, what political ecologies and future environments are emerging in the region? Can cooperation over renewable energies offer potential solutions? What are climate change and justice scenarios for different countries in the Basin? Our first multidisciplinary conference on Mediterranean Studies encourages critical reflection around the encounters of overlapping energy and environment crisis in the Mediterranean Basin from economic, political and social perspectives.

We hope to give the blue and the green back to the Mediterranean.

On behalf of the entire organization team,

Defne GÖNENÇ and Sinan ÜNLÜSOY
Yaşar University Center for Mediterranean Studies



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Climate Change and the Triangular World Politics

Fulvio ATTINÀ

University of Catania

In the current stage of world politics, the unprecedented competition of three big powers, United States, China, and Russia, heavily influences the response of the world policy-making institutions such as the IMF, WB, WTO, and the UN to problems that are plaguing the whole system of the states beginning with the environment depletion problem and the problem of energy supply. The thematic world conferences, especially the FCCC COP session conferences, are the stage of the triangular competition that frequently distances the making of energy and environment world policies.

The paper aims at uncovering and understanding the intersection of two bodies of knowledge, the knowledge about world powers competition and the knowledge about the making and implementation of world policies towards energy and environment issues. The paper stems from the notion of the conditioning influence of the world order competition among the great powers on world policies towards collective problems, and covers the following themes: 1) the policy preferences of the US, China, and Russia towards international rules and regimes of the energy market and environment protection; 2) environment pollution and protection as issue of confrontation between the US, China, and Russia; 3) the European Union and the three-power coordination or separation in international environment negotiation; 4) the chance of protecting environment by multilateral policy-making.

Keywords: Climate change; World policies; World order; Triangular world politics



Climate Change and the Ongoing Syrian Civil War

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Since its start in March 2011, the civilian war in Syria has been costing thousands of lives and billions of economic loss not only for the locals but also people from several other countries. On a higher international level, it has been a source of tension among the members of the United Nations Security Council members (i.e. “Great Powers”). A recovery from damage caused by the war is likely to take decades. Causes and course of the war are multidimensional. These can be briefly presented as a mix of ethno-religious tensions and manipulative foreign intervention. In addition to these factors, as shown by some recent studies, a lengthy period of drought worsened by the climate change should be taken into account. The drought period noticeably predates the war itself. However, it is definitely one of the key drivers of the war. Furthermore, this war-drought nexus can be even examined with references to similar interactions in the Arab Spring process. An example is the relationship between social unrest and food price rises triggered by the negative regional and global climate conditions. This paper aims to examine the interaction among the ethno-political tensions and the drought in Syrian case. The methodology is based on a qualitative case study. Data are collected from primary and secondary documents. Theoretical perspectives are drawn from an operational synthesis of Balance of Power/Threat, Complex Interdependence, and, environmental/climatic/geographical determinism studies. On a broader level, the paper aims to present a modest contribution to the multidisciplinary investigations on the Syrian war, and, also, wider political studies of the climate change.

Keywords: International relations; Political science; Climate change; Mediterranean; Syria

Democracy and Electricity: Institutions, Industrial Representation and Technology Deployment Rates

Zeynep CLULOW and David REINER

University of Cambridge

Deployment of electricity generation technologies can depend on many factors including the economics of different options, but also on political factors such as support (or opposition) of politicians, interest groups and the wider publics, as well as the interaction of political and economic factors. We investigate empirically the joint effects of the democratic attributes of countries' formal political institutions and the political influence of industry on electricity preferences and deployment rates.

We make two novel contributions, one theoretical and the second empirical. We examine how two elements of the domestic political setting influence political actors' energy preferences and ensuing deployment rates: (i) the democratic attributes of the formal political institutions, which shape the political incentives (and disincentives) attached to different energy sources; and (ii) the role of industrial energy consumers as a key interest group that can influence policymakers, thereby increasing the sensitivity of energy deployment to the political process. Second, we subject two of the leading political explanations of electricity deployment – regime type and interest group pressure – to rigorous quantitative tests by investigating whether they continue to wield explanatory power when country and regional confounding is held constant.

We test our hypotheses on the worldwide electricity sector using country-year energy deployment data spanning 136 countries from 1990 to 2018. Specifically, we investigate the joint effects of the democratic attributes of a country's formal political institutions and political influence of industrial energy consumers on the annual deployment rate of solar, wind, hydro, geothermal, gas, coal, oil and nuclear energy for electricity generation, *ceteris paribus*.

Our findings indicate that even when country and regional clustering are accounted for, democracy does indeed have a significant effect on the deployment of most energy technologies, which raises important implications for the Mediterranean region.

Keywords: Political drivers of energy transition; Electricity generation deployment rates; Renewable energy; Industrial energy consumers



European Stability and a Sustainable Energy System in North Africa

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While Washington based foreign-policy strivers consider North Africa secondary to the rest of the Middle East in strategic importance and security matters, European stability rests largely on a plethora of issues ranging from energy, migration, and extremism to the ambitions of Russia and China, which coincide in North Africa. North Africa's relevance to European security requires resurgence in relations. Indigenous sustainable energy resources in the region have a niche market waiting for investors and respond to mutual interests. On 16 November 2017 Morocco, Germany, France, Spain and Portugal signed a roadmap for sustainable electricity trade in Marrakesh at the COP22 climate summit. Interconnecting electricity systems allows surplus renewable electricity produced in one country to be exported to a nearby country with lower production levels, smoothing out fluctuating supply and demand. Yet, the benefits of this so far limited cooperation in the sustainable energy field are beyond integrating electricity resources. It may well lead to further cooperation and investment for renewable energy sector in the region.

Thus, this paper discusses the potential for building a sustainable energy system in North Africa, how it affects European Stability and provides mutual security benefits on both sides of the Mediterranean. Main argument of the paper is that a well-defined and dedicated European sustainable energy policy focusing on North Africa will improve European stability since it will create closer ties between the Northern and Southern coastal states of the Mediterranean, support climate policies of the EU and assist socio-economic development much needed in the North African states. Sustainable energy diplomacy will be in harmony with the EU's climate and energy policy and provide the EU with the advantage of getting politically, financially and technically involved in a relatively undisputed and peaceful field through investment into renewable energy infrastructure.

Keywords: European union; Energy policy; Sustainability; North Africa



Green Growth in Emerging Economies: Empirical Analysis for the BRICS Countries

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The year 2050, which aims to reduce the carbon emission of the countries and the target of "zero" carbon emission, marks a time not far away. The fact that emerging economies, which are the driving force of the world economy, integrate their economic policies against global environmental problem plays an important role in achieving this goal. The aim of this study is to investigate the causal relationship between carbon emissions and related OECD green growth indicators in BRICS countries, considering an important element of sustainable growth which is green growth. The data to be used are taken from OECD Data and World Bank Data sources, which are CO₂ per capita, GDP per capita, environmentally adjusted multifactor productivity growth, the percentage share of renewable energy supply in total primary energy supply, and percentage share of environment-related technologies in all technology. As the CO₂ per capita dependent variable, for BRICS countries model estimated by using EGLS method with annual data between 2000-2012. GDP per capita and percentage share of environment-related technologies in all technology and percentage share of renewable energy supply in total primary energy supply are found to be statistically significant. Environment-related technologies and renewable energy supply have negative effect on CO₂ per capita. According to Dumitrescu-Hurlin Panel Granger Causality Test it is found that uni-directional causality from renewable energy supply to GDP per capita and bi-directional causality between GDP per capita and environmentally adjusted multifactor productivity growth.

Keywords: Green growth; BRICS; Environmental economics



Modelling Carbon Dioxide and Sulphur Dioxide Emissions Using Dynamic Panel Techniques: Evidence on the Environmental Kuznets Curve (EKC)

Ebru YEŞİLÇAYIR and Özden BİRKAN

Yaşar University

This thesis investigated the relationship between per capita income and environmental degradation at the global level, using annual data on carbon dioxide (CO₂) and sulphur dioxide (SO₂) emissions. The specific objective was to estimate the environmental Kuznets curve (EKC) for two indicators of environmental quality and to establish whether the estimated relationships conform to the inverted U-shape and N-shape hypothesis. For the empirical investigation, the first econometric model was constructed for carbon dioxide emissions as a proxy for global warming and the second econometric model was constructed for sulphur dioxide emissions as a proxy for air pollution. Income, the square of income, the cube of income, energy efficiency, industry, coal and alternative (non-fossil) sources of electricity production as well as two different indexes of democracy were used as regressors in both models. In this thesis, the first econometric model was estimated for 119 nations from 1990 to 2011, while the second econometric model was estimated for 118 nations from 1990 to 2005. Both econometric models used the system Generalized Method of Moments (GMM) estimator in order to grasp cumulative environmental quality changes. Fixed/random effects estimators which are commonly preferred in previous panel estimations of static environmental Kuznets curve equations were also reported. The empirical results showed that the environmental Kuznets curve relationship differed depending on the type of the pollutants. More specifically, global pollutants exhibited the U-shaped and the inverted N-shaped environmental Kuznets curve, whereas local pollutants generally followed the “conventional” environmental Kuznets curve. Thus, it was concluded that environmental policy should consider the different characteristics of global and local pollutants.

Keywords: Air pollution; Global warming; Global pollutants; Local pollutants; Environmental Kuznets Curve (EKC)



Carbon Border Tax Adjustment: A Myth or a Reality?

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Today climate change is seen as one of the major threats that has the potential to damage natural environment significantly and as one of the serious factors to transform the global economy. Greenhouse gas emissions embodied in virtually all products produced and traded in the world economy. As it is known, the entry into force of the Kyoto Protocol has paved the way for differences in greenhouse gas emission reductions between countries. There are common but differentiated responsibilities between the countries that are willing to implement and support this Protocol and others that have no interest in adapting climate change policies to decrease GHG emission. Even the Paris agreement has a bottom up strategy and voluntary based expectations from the signatory countries, it is still a significant problem between signatory and non-signatory countries, and also developed countries are still expected to decrease GHG emissions more than other countries. There are both environmental and economic concerns regarding this issue. While the environmental concern is carbon leakage, the economic concern is that with the implementation of high-cost climate change policies, competitive advantage will be transferred to the countries which have no commitment under a climate change regime. It can be argued that the best way to combat climate change is through multilateral actions. Nevertheless, in response to above-mentioned challenges, in developed countries, there are political pressures to impose trade policies including carbon border tax adjustments on imports from countries with little or no climate policy. Thus, there are two main questions: whether this trade policy is compatible with the rules of the WTO and whether it is a good policy to deal with environmental and economic concerns. In this respect, I will analyse whether there is a real threat for Turkey especially after the Paris Agreement.

Keywords: The Kyoto Protocol; Greenhouse gas emissions; Common but differentiated responsibilities; Carbon leakage; Turkey



Energy and the Environment in the Late Ottoman Environment: An Inquiry into Heating in Anatolia

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Based on archival documents and foreign travel accounts, this study presents a historical analysis to the energy-environment relationship in Anatolia with specific reference to space heating. Fueled primarily by renewable resources, heating was an important component of the Ottoman energy economy. It is argued in this paper that increasing commercialization of fuelwood, population growth and latency to adopt coal-based heating technologies led to a growing pressure on renewable energy sources throughout the nineteenth century. In an agricultural society, environment was the key factor that determined the heating practices. In regions with forest cover, firewood and charcoal were the main sources of thermal energy. Heat was provided by dried dung in inner parts where vegetation was poor. Despite the increasing use of coal in the empire in the nineteenth century, its consumption in heating remained limited even in the most developed parts of the country due to higher prices. The Ottomans maintained the ancient heating practices until the demise of the empire. Major means of heating were hearths in the rural houses and braziers in the urban dwellings. In the spaces that lacked proper insulation, both methods suffered from inefficiency which had negative reflections on living standards and environment. Stove and central heating as latecomers were not widely used due to their costs and architectural inconvenience. Despite the state tried to develop protectionist forestry policies, the lavish use of fuelwood from commons by peasants did not cease. Settlement of immigrants in large numbers further increased the fuel consumption in Anatolian provinces. The Ottoman heating practices and problems related to environment continued with little change during the early Republican years.

Keywords: Heating; Ottoman Empire; Firewood; Charcoal; Forests



Digging up Mediterranean's 'Incalculable Underground Black Gold': Oil Aspirations and Explorations in Crisis-ridden Greece

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Shortly after the recent outbreak of the 'Greek crisis', the discussion concerning the exploration and development of hydrocarbon deposits in Greece resurfaced 'after years of silence' and is currently enjoying widespread propagation. It is a particularly vocal and complicated discourse, wherein notions of hydrocarbons as subterranean treasure and instrument of fiscal salvation are firmly intertwined with opaque technical terms borrowed from the disciplines of petroleum geology and the engineering sciences. Also included are constant reminders of Greece's future 'geopolitical empowerment', as well as emerging environmental conflicts

This paper pays attention to the Science, Technology and Society (STS) study of the co-shaping of science/technology and extractivism. Focusing on the politics, economics and ideologies embedded in (and advanced through) the science/technology of extractivism, it aims at a conversation with studies that have so far focused on the explicit political, economic and ideological dimensions of the various versions of extractive activities. By inviting attention to the scientific-technological materialities of extractive enterprises, and to the construction of the expertise linked to them, the paper aims at a critical revisiting of what we know about the complex workings of extractive explorations and operations by taking as a reference the paradigmatic case of crisis-ridden Greece.

Keywords: Austerity; Extractivism; Greece; Oil exploration; Socio-environmental conflicts



Blue Degrowth: An Alternative to the Energy Quest of Blue Growth Imperative

Irmak ERTÖR

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During the last decade, ‘Blue Growth’ has entered the political and economic agendas of many coastal states and international political actors such as the European Commission, United Nations Economic Commission for Africa, Food and Agriculture Organization, and the World Bank, among others, as a new dominant paradigm of how to re-organize and manage the marine economy (EC 2012, 2019; UNECA 2016; FAO 2019; WB 2017). This profit-oriented strategy calls for a significant growth in the seas and oceans, while in some cases also incorporating sustainability claims. However, while winking at renewable energies as part of the growing blue economies, new industries with unknown social and ecological outcomes such as seabed mining as well as the continuation of oil and gas exploration and extraction form part of these strategies. In this context, this study aims to problematize blue growth policies and strategies by especially focusing on its energy dimensions and exploring the ongoing debates in the Mediterranean Basin. By adopting a political ecology theoretical lens, the study will uncover the social actors of blue growth politics and discuss the inequalities and environmental injustices around these strategies. Finally, the research proposes an alternative understanding of relations with the seas and oceans around the ‘Blue Degrowth’ concept (Ertör & Hadjimichael 2020), in order to confront the blue growth imperative and its continuous energy requirement as well as to call for different imaginaries for socially and ecologically just blue economies.

Keywords: Blue degrowth; Blue economy; Seabed mining; Political ecology



Analysis of Renewable Energy Policies in the Context of Energy Transmission in Turkey

Tuğçe UYGURTÜRK
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Energy agenda of Turkey has experienced a substantial change for almost last two decades. As a fundamental component of sustainability; energy has been evolving with a multidimensional approach including the economic, political and environmental factors as well. Although there has been a considerable literature regarding the linkage between energy and each of these factors, current studies have dealt with energy by focusing on interconnection of these issues. Within this scope, economic dimension has been accepted as the most remarkable one as Turkey has to meet most of its energy demand by import. This would lead to a rise in energy import bills which also constitutes the biggest share of the current account deficit. As to environmental problems, increasing greenhouse gas emissions at a higher rate, particularly from energy consumption, have made implementation of both national and international commitments difficult.

In light of the above-mentioned issues underlying the necessity of energy transmission, some compelling policies have been set in Turkey. At this point, energy efficiency and diversification of energy sources (renewable energy) have been the utmost priorities of Turkey's energy policy. Considering the contribution to energy security, both energy efficiency and renewable energy have gained noticeable importance most recently. In this study, we try to explore the current renewable energy framework in Turkey in light of the recent legislations and investments as well. By doing so, we actually might have a better understanding for a comparison of renewable energy with the other energy sources in terms of economic and environmental aspects.

Keywords: Energy transmission; Greenhouse gas emission; Renewable energy policies



General Overview of Climate Change Problem and Renewable Energy Investment

Trends

Cenk SEVİM

AERO Wind Industry

Today, the share of renewable energy investments in new energy investments has increased considerably. Wind energy and photovoltaic energy systems make up the largest share of renewable energy investments. One of the main reasons for the increase in renewable energy investments is the sharp decrease in Levelized cost of energy values. Furthermore, the increase in the sensitivity to climate change on a global scale increases the tendency towards renewable energy investments. Unfortunately, the efforts conducted against the climate change problem are far from the targeted scale. Climate change shows a trend at the border of danger. If there is no internationally binding agreement for the real fight against climate change, the upper temperature rise limit of 2 ° C will be exceeded. The aim of this study is to make a situation assessment on renewable energy investment trends on climate change axis.

Keywords: Climate change; Levelized cost of energy; Renewable energy

Urban Mobility and Emergent Social Dimensions of New Transport Modes

Graeme HANSEN

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Urban mobility is moving away from classic automotive transport, with major industry leaders claiming “the day of the traditional automakers is over.” Many cities are talking about banning non-zero emissions vehicles. Countless predictions exist about unmanned or automated vehicles of the future, generally electric-powered, with little consensus from the automotive sector about the modes of future urban mobility in re-generated cities. Questions are now occurring about the capacity of energy grids to charge large numbers of el-vehicles simultaneously, as well as carbon credentials or sustainability of charging. Amongst the claims about clean-energy architecture, de-growth, and initiatives to increase resilience of cities, there is valid, published, evidence of the benefits of greater investment in cycling infrastructure. It is expected, as a consequence of the increased convenience of cycling paths, there will be a similar growth of Light-Weight Vehicles (LWVs) as a mode of urban mobility, with two, three or four wheels. Typically these new urban vehicles will be driven by some form of pedalling (otherwise recognised as a human-powered vehicle) combined with small electric motors. Deployment of new transport modes is an opportunity to implement sustainable urban physical mobility and to innovate mobility systems and services. Combined with a rapid growth of bicycling this paper further claims LWVs will become a viable part of the urban transport mix of the immediate future – requiring the development of effective policy options to recognise the shift towards sustainable urban mobility by these modes of transport. A further by-product of human-powered vehicles is measurable, long-term, significant health-care benefits according to recent publications. This paper recognises the challenges of planning for evolving social dimensions as a consequence of new transport modes: the paper additionally proposes a so-called ‘Mediterranean Paradigm’ relating to cities encircling the Mediterranean Basin, introducing the notion of new transport modes specific to the region.

Keywords: Urban mobility; Transport modes; Light Weight Vehicles; Resilient cities



Sustaining the Light: Aegean Lighthouses and Energy Provision through the Centuries

Özge BAŞAĞAÇ
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Since the earliest maritime activities of mankind, light had been the aid on the seas. Solar light through the day, lunar and stellar light through the night helped people to find their way on water. Lighthouses had been the secondary aids to navigation since antiquity. Turkey, as a peninsula surrounded with seas on three directions and situated at the intersection point of continents, had been endowed with many lighthouses over the centuries. The ancient lighthouses had been reinforced and used well into the Medieval Period, in close contact with coastal fortresses. Between 1855-1914, 225 lighthouses had been built along the shores of the Ottoman Empire from the Black Sea to the Red Sea. Half of these lighthouses had been inherited to Turkish Republic after 1923. Today, there are 459 lighthouses in Turkey, all owned by the State. While Black Sea, Marmara and Mediterranean lighthouses had usually been constructed on mainland, Aegean lighthouses had mostly been located in the open sea or on remote islands. This situation posed a two-fold challenge to sustain the light: Energy was needed to provide a light source and make it stable. Energy was also a priority for the light keeper who was assigned to protect the light and the light keeper families who were permanently stationed on the remote locations of lighthouses. Moreover, Aegean lighthouses evolved from inland sea structures of the Ottoman Period into critical sea border stations during Turkish Republic, constituting one third of all Turkish lighthouses.

This paper investigates the modes of energy and fuels used in Aegean lighthouses throughout history. The adaptation of lighthouse operations to renewable energy, automation, centralization and new uses as cultural heritage is discussed through case studies. Possible spatial modifications are proposed for future use of renewable energy in Aegean lighthouses.

Keywords: Lighthouses; Aegean; Renewable energy; Cultural heritage; Conservation



Energy Storage Technologies for Energy Security

Nezir Yağız ÇAM

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Lately, as the energy demand increased with the increasing population, fossil fuels used to supply this energy demand. However, fossil fuel usage causes some problems such as global warming and climate change. The effects of these popular problems were increased in recent years. In order not to further increase the effects of these two important problems, interest in environmentally friendly energy generation technologies has increased. As a result of recent researches and technological developments, the energy production capacity of renewable energy systems has increased considerably. Although renewable energy systems are environmentally friendly, they are not permanent sources. As an example, a photovoltaic system is permanent because it generates energy with the sunrise and stops the energy production with the sunset. In order to make this intermittent energy source as continuous, the excess produced energy is stored while the generation is more than need. In addition, when the energy storage systems are evaluated on a country basis, you can safely meet the energy needs of those living in the country. In the event of a diplomatic crisis, while excess energy allows export to another country in need. It can be easily observed that investments in renewable energy production systems have increased in the Mediterranean countries, which are actually very lucky compared to the rest of the world in terms of their location in the world. In this study, renewable energy technologies and energy storage systems that will help the countries of the Mediterranean region, which is a fertile region for renewable energy systems, are explained.

Keywords: Renewable energy; Energy storage; Energy security



The Lifeline of Izmir: Ground Water Resources of Western Anatolia and the Rise of Izmir in the 17th Century

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In the last quarter of the 16th century, Izmir was just a small coastal town and the total population of the city was less than 2 000. In the following decades, the city had begun to transform, and it became a prominent commercial center of the Eastern Mediterranean in a very short time span. On the other hand, this period also connects to a significant climatic shift for the Ottoman Anatolia. The drought of 1591 was especially severe and lasted five consecutive years, until 1596. The fact that it has been identified as the longest consecutive period of drought for the entire second millennium in Anatolia highlights its severity. The *Celali* rebellions and the drought mutually reinforced the destructive powers of each other and as a result of this process, a large-scale depopulation was observed in contemporary Anatolia.

This paper points that the agricultural production was secured and sustained in the midst of revolts and drought by the help of the region's peculiar hydrogeological features in the Western Anatolia. It is revealed that the hydrogeological structure of western Anatolia features a typical horst-graben system, whose water-table is relatively close to the surface and thus can be accessed using water wells only a few metres deep. Apart from these shallow aquifer systems, several rivers also enabled the irrigation of western Anatolia's fertile alluvial plains. Furthermore, the region became an attractive destination for peasants who had left their villages in the inner lands, and consequently a large number of immigrants flowed into western Anatolia and the regional population increased significantly. Agricultural production grew in tandem with the regional population and certain local products such as cotton and grapes in particular were affected positively by the new climatic conditions. As an outcome of the expansion of agricultural production, Izmir turned into the gate/port-city for the exportation of local agricultural products in a few decades.

Keywords: Environmental history; History of Izmir; Water resources



Aydın İlinde Jeotermal Enerji Santrali (JES) Karşıtı Protestolar: Geçim Kaynağını ve Yaşam Alanını Korumak

Çağrı ERYILMAZ
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Özellikle son 20 yıldır, enerji kaynaklarını çeşitlendirme, doğal kaynakları kullanma ve kalkınma söylemi çerçevesinde Türkiye’de nehir, güneş ve rüzgârın yanı sıra yeraltı suları da enerji santralleri için yoğun bir biçimde kullanılmaya başlanmıştır. Jeotermal su kaynaklarının yoğun bir biçimde var olduğu Aydın ve komşu illerde Jeotermal Enerji Santrallerine (JES) yönelik yoğun bir yatırım programı hayata geçirilmiştir. Çevre dostu bir enerji kaynağı olarak sunulan JES’ler hem tarımsal üretimi hem de havayı kirleterek toplumda kaygılara neden olmaktadır. 2000’li yıllarda kırsal alanlarda inşa edilen Hidroelektrik Santrallere (HES) karşı gelişen protestolara benzer bir biçimde JES’lere karşı yerelde tepkiler ve protesto dalgası ortaya çıkmıştır.

Batı Anadolu, Türkiye’de geçimlik üretimin piyasa için üretime ve köylülüğün üreticiye dönüşmesi sürecine öncülük etmesi nedeniyle kırsal kalkınma ve tarımsal üretimde güçlüdür. Bu çerçevede incir ve zeytin gibi ürünlerde kırdaki tarımsal üretimi tehdit eden JES’ler çevre korumanın yanı sıra geçim alanlarının korunması kaygısı nedeniyle de tepki çekmektedir. Literatürde yer alan zenginlerin, yoksulların ve hoşnutsuzların çevreciliği yaklaşımları geleneksel doğa korumacılığın ötesinde farklı kaygılarla yerel çevre protestolarını açıklamaktadır.

Bu çalışmanın amacı Aydın Bölgesindeki JES protestolarını incelemektir. JES işletmelerinin faaliyete geçtiği ve protesto edildiği alanlarda protestolara katılmış yerel aktörler ile yüz yüze ve yarı-yapılandırılmış görüşmeler gerçekleştirilecektir. Sonuçta, doğal değerlerin korunması kaygısı ile geçim kaynağının korunması farkı ortaya konacaktır.

Anahtar Kelimeler: JES; Çevre; Çevre hareketi; Protesto



The Importance of REScoops and Energy Democracy: Examples of France, Italy and Spain

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The greenhouse gas emissions cause the increase in the global temperature and human activities create the anthropocentric climate extremes. The destructive effects of extremes and unexpected weather events have increased especially in the past few years. Regarding the problems of increasing global temperature, the only promising solution is producing energy by using renewable sources and REScoops exhibit both effective and efficient examples to transform the energy sources to renewables. REScoops are the European federation of renewable energy cooperatives. They are one of the most authentic solutions of green politics regarding the issue of energy democracy. Renewable energy cooperatives reduce the carbon dioxide emissions while setting an example of participatory democracy which one of the values of green policy. The member cooperatives of REScoops are local economic structures in the regions where they aim to increase the income of the stakeholders and to decrease their emissions. Moreover, they integrate the stakeholders in the decision-making processes. In this study the importance of the renewable energy cooperatives to construct an example of energy democracy is discussed by focusing on REScoops' members of France, Italy and Spain.

Keywords: Renewable energy; Energy democracy; France; Spain; Italy



Smyrna and its Changing Climate According to Medical Reports in First Half of XIXth Century

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In the first half of the nineteenth century, the city of Smyrna (İzmir) was famous with its own special fog. Soil always retains its moisture due to intensive farming in the city's backyards which causes producing a vast quantity of vegetable matter. On the contrary, this plain is an inexhaustible store of miasma and diseases, this air is very harmful to health. That rains for 50 days makes the land is so low and many of the houses are built upon piles and special wooden causeways are necessary for passing in wet weather from one part of the street to the another. So that the city got used to living with this kind of air and it was observed that there were many baths around the city to treat diseases. These facts are sufficient to prove that although the climate is temperate, yet it is not uniformly so, and that it is subject to vicissitudes as destructive to vegetation as they are detrimental to human life. The Ottoman archives contain far more information on weather events and reports by European and American officials and travelers promise far more still. In this study, we will examine the city of Izmir's soil and its people, which has a hard time due to the negative weather conditions caused by the climate. In this regard, historians and climatologists must continue working together to fill in the gaps in our understanding of Mediterranean climate change and its historical impact.

Keywords: Izmir; Climate; Environment; Diseases; Migration



State Identity, Energy Security, and Foreign Policy: A Comparative Analysis of Germany and Turkey

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This study aims to examine the interaction between Turkish and German state identities and energy security perceptions, and reflections of this interaction to foreign policy behaviors in the context of social constructivism. In this direction, the two countries' energy policies, market structures and relations with international organizations were examined based on their state identities in the post-Cold War period. The study is based on two basic questions: What is the interaction between state identity and energy security of Turkey and Germany? And what is the interaction between energy policy and foreign policy of these countries? In this study, process tracing and critical discourse analysis methods were used. In this context, it was seen that Germany adopted a norm-oriented energy policy within the framework of the state identity and this energy policy was reflected in a similar way on its foreign policy. On the other hand, Turkey's energy policy is shaped around the hard power parameters and in this sense the two countries' energy security perceptions differ.

Keywords: Energy security; Foreign policy; State identity; Germany; Turkey



Environmental Groups and Renewable Energy in Turkey: The Case of Aegean Region

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Politics of energy transition remains entangled with contentious development agenda in many parts of the world. Recent struggles around phasing out brown energy stimulates debates about a just transition process. While many environmental organizations work for promoting renewable energy, some others highlight the injustices of this process and underline the necessity of taking into account the environmental and social impacts of renewable energy projects. While environmental movements struggle to resist the expansion of coal mines, oil and gas drilling, and power plants, they also unpack the tensions created by an unplanned and unjust renewable energy transition. By analyzing quantitative data collected via survey, the purpose of this study is to examine the characteristics, capacity, goals, and strategies of the environmental groups in the Aegean region of Turkey, where significant environmental issues including the use of renewable energies exist. In addition, it explores whether and how these groups associate with each other as well as with diverse public and private actors who are involved in renewable energy legislation, production, promotion and distribution. By doing so, we seek to get a preliminary understanding of what different roles environmental groups might play in Turkey's renewable energy debate and policy change.

Keywords: Environmental groups; Civil society; Renewable energy; Turkey; Aegean Region



The Role of Regional Governance on Environmental Migration

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Since the end of the Second World War, the growing number of human displacement has been debated and become a challenge for all parties. The recent internal or cross-border displacement literature represents more complexities in defining the roots of migratory decisions in a contemporary world. The refugee protection norms primarily based on the 1951 Convention regarding the Status of Refugees and its Additional Protocol in 1967. Also, 1948 ‘Universal Declaration of Human Rights’ assures refugee rights as a complementary mechanism. The rationale of the 1951 Convention of defining the status of refugee point out the European-level response upon migration flows after the devastating war. Due to the dynamic nature of displacement patterns and the need for efficient response to an emergency, such as environmental degradation, humanitarian protection, and aid operations gain momentum to discuss within a regional framework. These mechanisms supported by the idea of national sovereignty as authorities at the national level decide such mobility within their borders. In this regard, there have been severe predictions of a causal link between climate change and human movements through the IPCC reports. Climate-induced human migration constitutes one of the biggest challenges for protecting community resilience. Since the 1951 Convention defined refugees without framing climate-induced motivations, there is an ongoing debate on conceptualization for ‘environmental migrants’. This lack of an agreed definition poses a challenge for developing the necessary joint initiatives on addressing climate change and migration flows. Examples of such joint initiatives include humanitarian aid and developing legal protection norms. Besides, the slow on-set and sudden on-set of environmental changes affect migratory decisions. The question how to reform the existing legal norms or develop a new internationally-agreed set of rules upon policy responses about the climate-induced displacement brings certain obstacles. In this respect, the building and strengthening the regional instruments, such as individual initiatives and NGO’s fieldwork are crucial to approach the climate-induced mobility.

Keywords: Environmental migration; Refugee protection; Humanitarian aid, Environmental degradation



Governing the Water-Energy Nexus: Sustainable Resource Governance for Development in Turkey

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This research critically examines the development and mobilization of geothermal energy in Turkey as an example of an emerging ‘water-energy nexus’ central to the state’s resource-based national development policy. Turkey has put the water-energy nexus, i.e., the mobilisation of water and energy resources, at the heart of its ‘Vision 2023’ national development strategy following the neoliberalization (decentralization, privatization and marketization) of water and energy systems over the 2000s and 2010s. Hence, this research looks at politicized tensions related to geothermal energy in Turkey to better understand the relations between private actors and the state in the governance of this ‘green and renewable’ energy option. Then, it examines the capacity of an emerging integrated resource management concept, *nexus-thinking*, for social and environmental sustainability of hydrological interventions and of changing energy systems, including socio-spatial and environmental conflicts around these. To that end, this research focuses on three domains of environmental governance: (a) conflicting value and knowledge systems of nature and water in particular, (b) formation and functioning of actor-institution networks, and (c) implications of energy policies for hydro-social life as well as the distribution of socio-environmental costs and benefits from developing energy sources. Data informing the research is (will be) sourced from a wide range and a diverse set of stakeholders across energy systems, including government officials, state institutions, private companies, non-governmental organisations (NGOs), civil society organizations (CSOs) and local communities. The outcome of this research will contribute toward the sustainability of environmental governance of geothermal energy in Turkey, and thereby further the debate around sustainability of the water-energy nexus, both as an unfolding development discourse and an integrated resource management concept.

Keywords: Energy politics; Environmental justice; Neoliberal development; Geothermal energy; Environmental governance



Environmental Policy of the European Union: The Spread of Norms or Environmental Security?

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The free movement of knowledge, people and capital that emerged as a result of globalization has globalized local issues. Globalization has facilitated technology transfers and contributed to the development of production technologies. However, innovations in free movement and smart technologies have also globalized consumption. In the consumer societies that have formed, the environment has been destroyed because the conscious consumption of resources/products and sustainable development have not been adopted. Also, consumption of wastes, which has caused the balance of nature to deteriorate has not been controlled.

Therefore, although globalization appears as a positive phenomenon, it brings challenges too. One of the challenges is climate change. It is that a global common policy is necessary to prevent global warming for protecting food security, biosphere and natural resources. The main target envisaged in global environmental policies is to protect the environment, the biosphere and to prevent the extinction of species. However, critical studies describe the driving force behind this failed environmental policy. The main conclusion is that the effects of commercial, political or social interest groups on internal affairs prevent governments from carrying out strong and sustainable environmental policies. From another point of view, different priorities and interests of states prevent them from developing a stable environmental policy.

In the light of these explanations, it is possible to say that the EU started to develop a more comprehensive environmental policy especially with the 4th Environmental Action Program covering 1987-1992. Policies on environmental safety and sustainable development have been later strengthened. The 7th action program in the field of environment, 2013-2020, which sets out the specific requirements of climate change, biodiversity, natural resources, health conditions forced the market to work for the environment. Sensitivity on the conscious consumption of natural resources and global warming has increased. Certain thematic priorities, like reduction on greenhouse gases emission, using renewable energy, supporting environmentally friendly product, have been determined.

Keywords: European Union; Globalization; Normative Power; Environmental Politics



Neoliberal Agri-food Governance in Turkey: State, Governance and GMOs

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Since the 1980s, Turkey has undergone substantial transformations with the implementation of neoliberal economic policies which have paved the way for not only country's further integration into the global economy, but also a gradual departure from its longstanding nationalist stance. The agro-food sector is one of the key areas that has been considerably affected by neoliberal transformation. With the strong support of the IMF, the World Bank, the WTO and the EU, Turkey has introduced radical policies to the agricultural sector which have resulted in gradual decrease in domestic support, elimination of subsidies given to farmers, privatization and increasing role of transnational agribusiness companies (TNCs) in domestic agro-food sector. Parallel to the rise of neoliberalism since the 1980s, biotechnology, dominated by a handful TNCs, has emerged as main technological form in agricultural production in all over the world. Turkey is no exception.

By combining the food-regime approach, developed by Friedmann and Michael (1989), with the neoliberal governance paradigm, this article aims at investigating agri-food transformation in Turkey with a specific reference to genetically modified organisms (GMOs). Through employing the food regime approach, this article not only situates the agri-food transformation of Turkey in a historical context but also explicates regulatory changes introduced in the sector after the 1980s. Besides, the neoliberal governance paradigm helps to better understand main actors of regulatory framework for agro-food industry such as the state, TNCs, farmers and power relations among them. This article argues that current agrofood regulations, especially pertaining to GMOs, in Turkey illustrate the institutionalization of the neoliberal governance which is shaped by market principles, corporates and international institutions but with a limited role given to the non-market actors (consumers, farmers, NGOs) in policy making.

Keywords: Agri-food governance; Food regime; Neoliberalism



Public Opinion on Renewable Energy Transition in United Arab Emirates

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The United Arab Emirates (UAE) is the most successful country in transition to renewable energy together with Saudi Arabia in the Gulf Cooperation Countries. This is because it hosts the permanent headquarter of the International Renewable Energy Agency (IRENA) and supports the scientific research and development. However, it also faces important social and economic challenges of decreasing revenue from hydrocarbon exportation. This paper investigates the acceptance and awareness level of UAE citizens about transiting their energy system from hydrocarbon-based to green energy. A special questionnaire was designed and sent to a sample of population whom currently live in the UAE. The first section of the questionnaire is related to knowledge about policies, supportive strategies, and usage of renewables in the UAE. The second section seeks to measure how informed people were about the benefits of shifting away from fossil fuels. The third section aims at understanding whether people are aware of the support and assistance, which municipalities and government can offer citizens. The final section measures the willingness of people to personally transit into renewable energy and to take practical steps. We find out that 78% of participants believe that the renewable energies are a better choice for the future of the next generations. However, they are not willing to pay the cost and prefer to wait for cheaper renewable systems. People generally think that climate change is not a big problem and exaggerated by the media. The questionnaire also finds that the people aged between 15 to 24 years care more about the transition. The main policy recommendations to the government are to eliminate the fossil fuel subsidies, support the renewable energy sector with well-designed loans or less taxations and try to increase people's awareness by using all kinds of media tools.

Keywords: Renewable energy transition; United Arab Emirates; Questionnaire analysis

