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The limits of authoritarian energy governance: Energy, democracy and public contestation in Turkey

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1 Introduction

The shock of the COVID-19 pandemic appears to have hit global energy trajectories in ways that disrupt the much-anticipated decarbonization pathways [1]. Although complying with climate pledges might be somewhat delayed [2], it has also become apparent that a different interplay of energy and society assemblies is indeed possible, under extreme, unexpected conditions. Moreover, the ex-post COVID wave shock is now coupled with the slashing of gas imports from Russia in light of Russia's invasion of Ukraine, serving as a wakeup call for breaking away from dependence on authoritarian regimes. Projections of European demand on Russian gas imports are anticipating cuts by a half [3] or even by two thirds [4]. However, despite the light of recent events, the bounce back of emissions is already under way. After dropping 5.4% in 2020 due to the pandemic, global emissions are expected to increase 4.9% 2021 [5] in the absence of rapid structural changes in global economic, transport, or energy systems [6]. While renewables might soon reach their highest levels in terms of output and share, it has also been acknowledged that a transformation in the power sector alone will only result in a third of the commitments to achieving net-zero emission targets [7]. Thus, it is imperative that governance schemes either lead or defer these winds of change. The steady rise of authoritarian populisms and social polarization coupled with ambiguous energy futures imply different political, social, and ecological challenges and lock-ins regarding energy transitions. Such transitions are experienced differently across both the Global North and

Global South [8,9] while also being multifaceted across how different axes of justice, politics, and power play out [10] now witnessed across many sectors across the global social fabric in line with increasing oil and gas prices [11].

Against such a backdrop, while the building global momentum is calling for decarbonizing energy systems as in the cases of the Green New Deal [12] (for a partisan polarization over this deal see Ref. [13]), the European Green Deal [14], and more radical transformation options [15], Turkey's energy futures hang on a tightrope. As a country once hailed as an economic miracle, Turkey today witnesses a failing economic model based on credit-expansion-driven domestic demand, shattered democratic checks-and-balances as well as booms and busts of construction, extractivism, and energy rush based on clientelist relations [16]. Old fashioned energy production schemes, such as combined cycle natural gas and coal, continue to form the central constituents powering the economy, depending heavily on energy imports skyrocketing from 52% to 69% between 1990 and 2019 [17]. Fossil fuel-based production accounted for almost half (48.3%) of the country's installed capacity in 2020; with 32.3% share of hydropower, leaving renewables capacity at a mere 19.4% [17]. These figures become even more problematic when one considers Russian invasion of Ukraine in 2022 and Turkey's heavy dependence on Russian oil, natural gas and coal making up for 35.1% of its all fossil fuel imports [17]. Fuel combustion from energy industries had the biggest share in Turkey's cumulative GHG emissions in 2018 (around 38% of total emissions with over 157 million tons of CO₂), while the transport sector accounted for around 20%, followed by manufacturing industries and construction at around 14% of total CO₂ emissions [18]. Such infrastructures and respective emissions are a mere reflection of the fossil lock-in to the colossal project of authoritarian developmentalism via carbon-intensive industrialization and modernization based on aggressive neoliberal policies [19].

In the political sphere, the Justice and Development Party (AKP) led by president Erdoğan has been governing the country for two decades with increasing tones of authoritarian, clientelist, and populist policies. Following the constitutional referendum in 2017 which led to executive aggrandizement by concentrating political power in Erdoğan's hands, already dubious energy and economic growth targets started to appear bleak. Erdoğan's autocratic governance has also given way to authoritarian impulses within environmental policies, expanded securitization of fossil fuel resources, mirrored through the offshore gas rush in the eastern Mediterranean [20], along with a national promise of extracting a recently discovered natural gas reserve in the Black Sea [21]. Securitization has primarily placed both fossil fuel and renewable energy choices beyond public debate, thereby enabling decision-making on premises of impulse, urgency, anxiety, and a willingness to sacrifice while also locking in, legitimizing and amplifying Turkey's overall energetic metabolism. As such, current policies have not only led to the subjugation of the country's unique natural ecosystems with a hunger for more energy acquisition but also continue to threaten and repress the dissenting voices including those of women, rural communities, ethnic minorities, and youth. Often, such social forces at play are suppressed with the trinity of authoritarian developmentalism, chauvinist populism, and coercive state power [22].

In this chapter, we bring in several knowledge claims from critical biophysical economics and political ecology to situate the undemocratic nature of Turkey's energy predicament. The combination of these disciplines put emphases on biophysical limits [23], on asymmetrical power relations [24], on the notion that energy is a social relation [25], and eventually leading to the

conclusion that the condition of the ecological system is inextricably linked to the status of the social system [26]. For doing so, we inquire the socio-metabolic intensification in Turkey across the different sectors making up the economy, with critical attention to how the uneven praxis of power in the last two decades in Turkey has led to deep transformation of socio-natures [27]. We argue that the domination of authoritarian, developmentalist politics over socio-natures have led to a two-way trend. We reckon that the top-down, and growth-oriented neoliberal developmentalist model in Turkey has not only deepened under Erdoğan but has achieved its current status due to the normalization of coercion against environmental dissent, emboldened clientelism, a disregard for already faltering legal mechanisms, and abrupt regulatory arrangements to favor private capital [28]. This in turn has also fueled what Arsel et al. refer to as the “environmentalism of the malcontent” [29], a socio-ecological consciousness revival in the society due to rampant environmental destruction and unmet welfare expectations.

2 The multiple manifestations of authoritarian energy governance

Historically, the topic of energy has been omnipresent in the transformation of economic regime in Turkey since the 1970s. First from state-led import-substitution industrialization to a technocratic neoliberal regime and thereafter to its current reincarnation as cronyism-driven, market-friendly autocratic governance under Erdoğan, energy has played a crucial role at each step of the transformation of political and economic power in the country. The most notable shift occurred in the aftermath of the 2001 crisis, in which an International Monetary Fund—World Bank-led structural adjustment program reconfigured the regime of accumulation around an export-led growth strategy manifested as privatization of public assets, elimination of agricultural subsidies and promotion of subcontracting public services [30]. As a result of these colossal changes, domestic and foreign capital skyrocketed private energy investments owing to deregulation while energy-related decisions were “insulated from public participation, resulting in intense sociospatial and socio-economic inequalities and conflicts” [31, p. 1]. As Erensü [32, p. 156] also reminds us, this transformation “almost tripled the country’s electricity generation capacity, created a lucrative market for the capital owners but also created deep social and ecological conflicts as energy infrastructures aggressively grappled land and water in the countryside” in the past two decades.

2.1 Socio-metabolic intensification

When looking into Turkey’s societal metabolism, the scrutiny of how continued flows of energy and materials have been sustaining the biophysical backbone of the economic system [33,34], we can see that the country’s energetic metabolism has persistently been intensifying. Within the time span of almost two decades since 1990, Turkey’s final energy use increased by over 2.6 times in total size. While qualitative transformation in household energy use has not shown much increase, the commercial and public services sphere has shown tremendous growth. An increase of about 15-folds in energy throughput in commerce and public services went hand in hand with the market liberalization and the country’s integration into the global energy markets. Aiming at being a regional “energy hub,” the Turkish state cleared the ground for the market formation and intensive corporatization in service of its

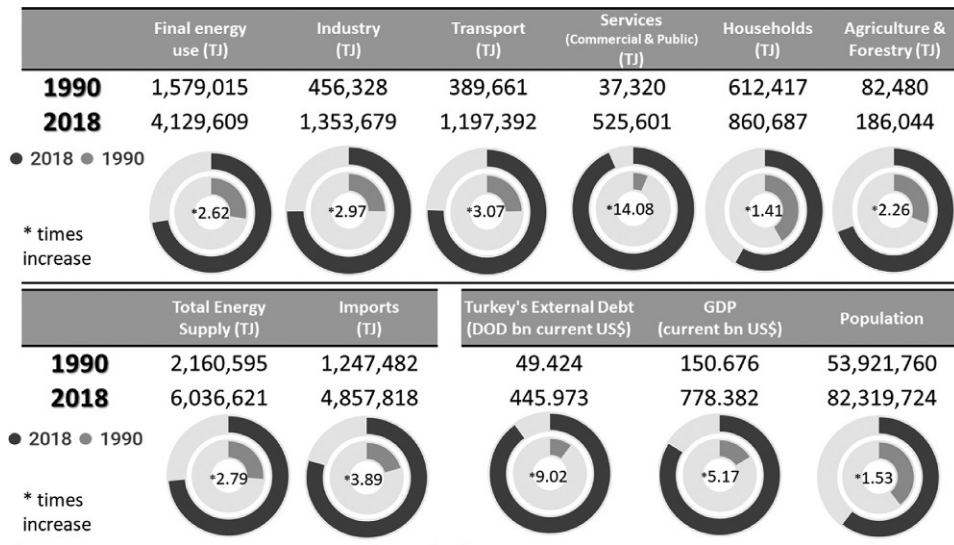


FIG. 25.1 Turkey's energetic metabolism by subsectors, supply and imports (in TJ) coupled with socio-economic indicators. Energy data from Ref. [35]; Socio-economic data from Refs. [36, 37].

energy security-oriented calculus of grandiose geopolitical aspirations [31]. In terms of overall weight, however, the industrial and transport sectors have driven the overall energetic metabolism both tripling in size. Fig. 25.1 shows the shift in the energetic metabolism of the country between 1990 and 2018 in comparison to other socio-economic indicators.

Such an intensification can be seen as a promoter of economic growth, yet for a nuanced analytical assessment, it is vital to investigate where these resources are coming from, how they are produced, and by whom these products are extracted [38,39]. Scrutinized under a political-economic lens, it can be argued that such a metabolic expansion has been linked to extensive marketization and an inflating construction-mining bubble [40] coupled with mounting foreign debt obligations [41] increasing almost 10 times in size.

2.2 Expanding energy frontiers

In the name of keeping up with this escalation, domestic energy resources have been treated as commodities par excellence to be appropriated at all costs. While energetic metabolism intensified per subsectors, the means of energy provision (the total primary energy supply) has quadrupled. This quadrupling manifested itself in terms of expanding spatial energy frontiers domestically, as well as transnationally; as shown in the case of accelerating fossil fuel imports from places as far as Colombia [42], Nigeria, Algeria, and Qatar [43].

The tentacles of energy projects in Turkey have extended from the urban to the rural in the form of ecological sacrifice zones built to deliver energy services to the metropolitan hubs, externalizing urban energy demand and material footprints to rural areas [19]. The country's Vision 2023 strategy document [44] foresaw almost a doubling of the total installed power capacity to 110 GW via thermal and power plants, small-scale hydropower projects, and renewable energy projects together with two nuclear power plants, one already under construction by the Russian Rosatom in Akkuyu [45]. (For a detailed discussion on narrative strategies on

nuclear power in Turkey see Niphi and Ramana [46] of this collection.) Striving to overcome the country's energy import dependence, the strategy of the Ministry of Energy and Natural Resources set its eye on expanding the installed capacity powered by domestic and renewable sources from 59% to 65% between 2019 and 2023, including 50% increase in domestic coal and 100% increase in solar energy capacity [47]. This rush over energy resources [48] in service of economic and geopolitical goals has therefore subjugated the environment and the people as secondary resulting in numerous socio-ecological conflicts as mapped out in the environmental justice atlas [19,49] (see Section 3).

2.3 Transforming landscapes

Manifestation of power, intensive resource extraction, and increasing energy throughput have been put forward in the form of megaprojects most evident in urban cities. A new massive airport in Istanbul aiming to be the world's biggest airport despite proven oversized and sunken with the collapse of air traffic due to COVID-19, a new bridge with its connecting highway infrastructure perturbing forest land, and a ludicrous project in planning, a Suez Canal-type waterway parallel to the Bosphorus, the *Kanal Istanbul* is expected to result in a colossal amount of land excavation and ecological destruction while creating windfall profits for landowners in the surrounding areas [50]. Some commentators claim that the underlying reason behind these megaprojects is to construct a new city in the north of Istanbul [51], quite an energy-intensive ambition.

Given their scale and the jaw-dropping resources spent on megaprojects, such ventures often bear the risk of not living out expectations (i.e., Turkey claiming to have lost \$208 million in revenues due to technical problems between the period 2007 and 2009 from the Baku-Tblisi-Ceyhan oil pipeline) while also possibly reinforcing corruption schemes and leading to further erosion of democracy [52]. Riding on the credit expansion tide in the aftermath of the 2008 global economic meltdown, Erdoğan's regime further accelerated its energy rush by pushing and pursuing the all-of-the-above strategies. As Firat [53, p. 89] underlines, "relying mainly on borrowed finance (domestic or foreign), imported pipes and other critical materials, and cheap domestic labor, the construction of certain large-scale energy and transport infrastructures, such as pipelines, does not look sustainable from the perspective of sound energy policy nor from an economic perspective."

3 The emergence of new energy politics via socio-ecological conflicts and resistance

Often, where socio-ecological conflicts emerge, there also surfaces an embedded need to explore the consequences of struggles over authority [54], scrutinizing the types of new subjectivities and priorities put in place [55–57]. Despite the tumultuous history of environmental dissent in terms of its victories [49], in Turkey, we observe a wave of new energy politics out of contemporary socio-ecological conflicts. This wave comes as a response to Erdoğan's authoritarian energy agenda making the winners and losers of the actually existing energy governance explicit. At its core, such new energy politics position themselves at distance from established channels of power, thereby questioning the legitimacy of contemporary energy politics [57,58].

One clear manifestation of this reckoning is the rise of new political identities born out of environmental movements against reckless energy investments. Over the years, Turkey has witnessed a rise in mobilizations against the disproportionate social, environmental, and health impacts of electricity generation projects [59,60]. Starting in opposition to small-scale hydropower and nuclear, then expanding and spreading over to coal-fired energy investments and most recently emerging as a solid resistance to geographically intensive geothermal and onshore wind projects, Turkey's environmental movements waged popular struggles against the undemocratic, top-down, and technocratic nature of Erdoğan's aggressive and coercive energy agenda. While one can observe continuity of the state-led developmentalisms insistence on large-scale energy infrastructures (from the much-contested Southeastern Anatolia Project to Yatağan Power Plant from the 1980s), we also note that the ground conditions have become much more inhospitable to any type of opposition in the past two decades.

Many of these singular and isolated local environmental movements are in fact deeply inter-related in their dissent against the exploitative nature of the country's energy policies. Despite their spatial differences, the confluence of these movements against mining and energy investments have given way to new political subjectivities and thereby destabilized the inherent developmentalist assumptions across the left-right spectrum in Turkish politics. These fragmented pockets of opposition also succeeded to a large extent to expose the actors of dispossession as illustrated in the Networks of Dispossession project [61]. Meanwhile, stories of these movements have been documented in detail by rooted NGO campaigns (e.g., The real cost of coal in Muğla by Climate Action Network [62] or Greenpeace capturing coal stories [63]) and amplified by local extensions of global campaigns (e.g., Break Free from Fossil Fuels [64] and 350.org Türkiye [65]). Such struggles, in essence, have created ad hoc pockets of resistance thereby constituting a larger systematic struggle of movements against the repressive energy governance [66].

All in all, environmental opposition in Turkey offers a means of politicizing energy planning beyond the state's geopolitical calculus and thereby helping reframe energy as a social relation [26,67] while extending spaces and meanings around an ecologist identity [31]. Although mostly reactive, these movements also have brought forth debates on democratic, place-based, and collective [68] ownership of small-scale energy production via citizen involvement: a matter so far kept at bay by the Erdoğan regime's preferential treatment of large-scale infrastructures built by its cronies.

4 Conclusions

Turkey's energy landscape has been dominated by an import-based, growth-at-all-costs strategy in the past two decades despite repeated claims of self-sufficiency in high-level politics [69]. Consequently, a "critically insufficient" climate policy has become the collateral damage of this all-out energy expansion. This critical insufficiency has also been clearly manifested through gradual phases of socio-metabolic intensification, expansion of energy frontiers, and transforming socio-natures, leading to irreparable harm. Yet, emerging environmental movements draw the lines of insubordination against these instances of extraction and commodification, while also questioning the uneven distribution of its benefits.

From this perspective, we suggest that energy investments of all sorts are not so much inevitable economic necessities but rather deliberate political choices grounded in authoritarianism and technocracy in the Turkish experience. Following Hoffmann's [25] call to frame energy as a social relation, we contend that spatial and material dimensions of energy investments co-evolve within historically specific socio-natural relations situated in a broader political-economic context. Therefore, rather than framing energy as a commodity, one that is seen as an input to accumulation regime in the hands of the government's cronies, we argue that framing energy as social relation might lead to a renewal of socio-ecological relations in Turkey. A recent study suggesting that transformation of open-pit coal mines into solar powerhouses in the country could provide energy to 6.9 million households annually is a case in this point insofar as these solar investments are controlled and managed democratically by, for and with the communities in these regions [70]. This observation requires us to go beyond the simplistic narratives such as meeting the rising demand via more investment, security of supply and bigger and better technocratic assemblages. Instead, we argue that new energy politics in the country call for a thorough re-thinking of the fruits of metabolic expansion asking the essential by and for whom, why, where, and how questions. These questions moreover require maximum attention and immediate answers amidst the geopolitical chaos of imports to and from Russia.

In sum, we claim that distinct social values [71] are emerging from environmental movements in the face of Turkey's authoritarian energy governance. These social values blend with new energy politics in embracing a transformative vision and channeling the malcontent to political change. However, we should also acknowledge the limits of hope these movements may create beyond the rhetoric. Ultimately, environmental movements producing new subjectivities and connecting local grievances against an authoritarian energy agenda can only yield transformative results as long as they succeed in bringing multi-dimensional, intersectional, and socially acceptable solutions to their woes.

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