THIRD WORLD QUARTERLY
2023, VOL. 44, NO. 4, 724–743
https://doi.org/10.1080/01436597.2022.2158080

Unusual middle power activism and regime survival: Turkey's drone warfare and its regime-boosting effects

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ABSTRACT

The emerging middle powers in the Global South increasingly seek to produce domestic defence technologies. Drones in particular have become an important feature of middle power activism. The existing literature heavily focuses on the outcomes of the diffusion of drone technologies for regional and global politics. Yet not much has been written on the domestic impact of home-grown military technologies in middle powers. Therefore, we ask how the manufacture, export and use of drones promote regime survival, focusing on the case of Turkey. Turkey is a critical case because of its demonstrated middle power status and heavy investment in the development of armed drone platforms. Turkey's drone programme and warfare have considerably raised the international profile of the country's burgeoning defence sector. Yet we argue that the use of military tech also has boosting effects on domestic regime survival. This happens in three ways: promoting techno-nationalism and pride, strengthening border security and shaping regional order, and contesting global dynamics on the basis of national interests, security and self-sufficiency.

ARTICLE HISTORY
Received 27 September 2022
Accepted 9 December 2022

KEYWORDS
Turkey
drone
defence technology
middle power
regime survival

Introduction

The literature on traditional middle powers has focused on liberal democratic, stable and wealthy countries such as Canada, Australia, the Netherlands and Sweden acting as supporters and stabilisers of international order (Jordaan 2003; Carr 2014). Yet the emerging middle powers in the Global South, such as Turkey, Indonesia and India, tend to develop more ambitious and to some extent aggressive foreign policy agendas that raise concerns for the stability of the liberal international order (Aydın 2021; Grzywacz and Gawrycki 2021). This 'unusual middle power activism' (Kutlay and Öniş 2021) that goes beyond conventional middle power behaviour, however, contributes to the regional policies of these countries, expanding their sphere of influence in their respective regions and even in international politics. Drones[1] seem to serve this foreign policy agenda.

The rising drone technology has received much attention in recent research on the Global South (Fuhrmann and Horowitz 2017; Kasapoğlu 2020; Milan and Tabrizi 2020; Ayanoglu

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This article has been corrected with minor changes. These changes do not impact the academic content of the article.

2022; Frantzman 2021). The comparative politics literature has investigated the technical aspects of new drones in terms of military capability and warfare (Farooq 2019; Kınık and Çelik 2021; Urcosta 2021; Gartzke and Walsh 2022). Security scholars have investigated the policy implications of rising drone powers for global governance of security and international order (Mayer 2015; Horowitz, Kreps, and Fuhrmann 2016; Borsari 2022; Lushenko, Bose, and Maley 2022; Pitel and Jalabi 2022). Scholars have also considered normative dimensions and discussed the morality and ethics of drone warfare (Horowitz 2016; Wadhwa and Salkever 2021).

However, we know relatively little about the domestic policy impact of home-grown military technologies. Therefore, we ask how drone-based middle power activism promotes regime survival at home. This paper seeks to define causal pathways from the adoption and use of drone technology to regime survival, using Turkey as a critical case.

Turkey has embarked on an ambitious foreign policy agenda in the last few decades, characterised by middle power activism (Ongur and Zengin 2016; Öniş and Kutlay 2017; Parlar Dal 2019; Aydın 2021). In accordance with its regional aspirations as a middle power, the Turkish government has invested heavily in the defence sector, gaining new markets for its exports including drones, frigates, missiles, and other high-end weapons systems (Cagaptay and Outzen 2022; Coşkun 2022; Kırdemir 2022). As of 2021 Turkey is the 16th largest arms exporter in the world. From 2002–2011 to 2012–2021, Turkey's arms exports grew by 72.7%, the highest rate of growth among the top 20 arms exporters in this period (Table 1). The percent change from 2012–2016 to 2017–2021 was recorded at 23.6. Turkey is one of the few countries where the arms imports declined while the exports increased. Turkey's arms imports dropped by 55.5% from 2012–2016 to 2017–2021 (Table 2).

The climbing arms sales volumes pushed Turkey up six spots on average in the global ranking of arms exporters (Béraud-Sudreau et al. 2020). It is estimated that drones have accounted for at least $700 million in Turkey's arms sales (Borsari 2022). Turkey has exported

Table 1. Arms exports from the top 20 largest exporters.

2021 Rank	Supplier	2021 exports*	Percent change from 2002–2011 to 2012–2021	Percent change from 2012–2016 to 2017–2021
1	United States	10,613	28.6	12.5
2	Russia	2744	1.1	−35.9
3	France	3954	23.8	37.1
4	Germany	914	−49.4	−24.0
5	China	1085	50.7	−45.3
6	United Kingdom	601	3.3	−69.4
8	Italy	1717	27.7	14.0
7	Israel	606	21.8	−6.0
9	Spain	612	30.6	9.4
10	Netherlands	299	−1.2	−13.3
11	Ukraine	86	7.9	−254.3
12	Sweden	332	−63.7	−54.1
13	South Korea	566	69.4	63.9
14	Switzerland	147	−17.8	−53.8
15	Canada	119	−45.6	−70.6
16	Turkey	380	72.7	23.6
17	Norway	58	23.7	−132.8
18	South Africa	83	−12.2	−6.1
19	Belarus	98	36.9	−71.0
20	Australia	173	51.2	49.5

*Figures are SIPRI Trend Indicator Values (TIVs) expressed in millions.
Source: SIPRI Arms Transfers Database, November 2022.

Table 2. Arms imports to the top 20 largest importers.

2021 Rank	Recipient	2021 imports*	Percent change from 2002–2011 to 2012–2021	Percent change from 2012–2016 to 2017–2021
1	India	4414	56.5	−20.6
2	Qatar	1767	1384.0	227.0
3	Saudi Arabia	1723	342.0	27.5
4	Egypt	1355	104.4	72.6
5	Australia	1235	45.8	61.8
6	China	901	−40.6	4.1
7	United Kingdom	893	16.4	73.7
8	Japan	885	6.2	152.3
9	Pakistan	884	−2.0	−10.5
10	United States	738	−12.4	−9.6
11	South Korea	720	−24.9	70.6
12	Israel	610	−13.2	19.4
13	UAE	440	−3.2	−41.0
14	Indonesia	328	128.5	−23.9
15	Turkey	271	2.9	−55.5
16	Viet Nam	244	190.1	−55.7
17	Algeria	237	44.8	−37.1
18	Singapore	157	−30.5	−19.7
19	Greece	145	−80.9	−66.6
20	Iraq	26	144.1	−65.5

*Figures are SIPRI Trend Indicator Values (TIVs) expressed in millions.
Source: SIPRI Arms Transfers Database, November 2022.

its drones to two dozen countries in Europe, North Africa, and Central Asia. The next-generation Turkish drones, equipped with artificial intelligence and autonomous flight capabilities, will put Turkey further in the international spotlight (Wadhwa and Salkever 2021).

Some already label Turkey as a 'drone superpower' (Brownsword 2020; Velazquez 2021; Gao 2022) following its quick entrance into the drone market which was previously dominated by the United States, Israel and China. Turkey's aspiration to establish itself as a drone power has come at a time when the country's relations with its allies and traditional defence industry partners in the West, such as the United States, have started to deteriorate (Aydın 2021, 1388). Turkey's drone warfare has considerably raised the international profile of the country's burgeoning defence sector and helped it muscle its way into middle power status (Kasapoğlu and Kırdemir 2018; Kasapoğlu 2020, 2021; Frantzman 2021; Outzen 2021). Yet we argue that the use of military tech also has boosting effects on domestic regime survival. This happens by using three strategies: promotion of techno-nationalism and national pride, strengthening border security and shaping regional order, and contestation of global dynamics.

First, the apparent success of the Turkish drones as broadcast in government-controlled media channels, as well as social media, promotes techno-nationalism. Second, Turkey's effective use of drones in counter-terrorism operations and regional conflicts contributes to border security and regional order-building efforts. Third, arms sales enable Turkey to position itself as an alternative source of military tech and contest power configurations on the grounds of self-sufficiency. Relying on the success of Turkish drones inside and beyond the country's borders and their export to other battlefields, Turkey's ruling party, the Justice and Development Party (AKP, in the Turkish acronym) presents its growing national defence industry as a remarkable success story and appeals to nationalist feelings. Turkey's unusual drone-based middle power activism helps the incumbents trigger a rally effect within its

own electorate, especially at a time when the regime faces a series of economic and political challenges at home.

The paper is structured as follows. After this short introduction, the next part presents the theoretical framework to explain the linkage between drone-based middle power activism and regime survival. After presenting a brief background on the global proliferation of drones and Turkey's rise as a drone power, the theoretical argument is illustrated in the third part with empirical evidence from an in-depth analysis of government documents, media outlets, speeches of government and sector representatives, and reports of international organisations on Turkey. The final part summarises the main argument and discusses the implications for the research on middle power activism and liberal world order.

Middle power activism and regime survival – a framework for analysis

Middle powers are generally defined as countries that are 'neither great nor small in terms of their power, capacity, and influence and exhibit the capability to create cohesion and obstruction toward global order and governance' (Jordaan 2003, 165). Material capabilities – gross domestic product, population, military expenditure, trade, etc. – have been decisive in defining middle power status (Chapnick 1999; Carr 2014). Material capability is necessary but not sufficient for a state to be a middle power. The post-Cold War literature defines middle power as the behaviour of states as materialised in their foreign policy towards the international order (Cooper, Higgott, and Nossal 1993) and focuses on how policymakers cause middle-power behaviour (Sandal 2014). This behavioural approach brings in the role of ideational factors in the construction of the middle power status as it is an aspiration of policymakers (Kavalski 2019).

The literature also distinguishes between 'traditional' and 'emerging' or 'new' middle powers. Canada, Australia, Sweden, the Netherlands, and Norway (and, to some extent, New Zealand and Denmark) are defined as traditional middle powers (Cooper, Higgott, and Nossal 1993; Westhuizen 1998; Jordaan 2003; Beeson and Higgott 2014; Carr 2014). Although these countries are wealthy, stable, and democratic and have considerable resources and capabilities, they lack the power to exert a decisive influence on major issues of global politics (Wang and French 2013). Yet 'middle powers do not challenge or threaten the global status quo' (Jordaan 2003, 167); instead they are perceived as benign actors concerned with international challenges and act as a 'stabiliser' of the international order (Paris 2019, 1), 'helpful fixers' to great powers (Graeger 2019, 84) or exhibit 'good global citizenship' in pursuing multilateral cooperation, conflict mediation and diplomacy in niche areas (Cooper, Higgott, and Nossal 1993, 19).

'Newly emerging middle powers' tends to refer to countries in the Global South with mid-range material (military and economic) capabilities, such as South Africa, Turkey, Chile, India, Malaysia, Indonesia, Brazil, Mexico, Venezuela, Argentina and Algeria. In the post-Cold War era, emerging middle powers showed a commitment to liberal international order, participated in multilateral institutions, and acted as promoters of democratic and economic reforms in their respective regions (Cooper 2013; Aydın 2021). However, in the post-hegemonic world order that is becoming more multipolar and less Western-centric, emerging middle powers display less commitment to international organisations and norms of liberal order yet seek more autonomy in regional and international politics (Wang and French 2013; Sandal 2014; Öniş and Kutlay 2017; Kavalski 2019; Grzywacz and Gawrycki 2021).

Therefore, the second-generation middle powers tend to engage in ambitious and unpredictable foreign policy moves and often risk strong reactions from the great powers (Sandal 2014, 695; Aydın 2021, 1382). In other words, they seek to 'punch above their weight' (Mo and Cooper 2011). Kutlay and Öniş (2021, 3051) even refer to 'unusual activism' that is associated with the rising authoritarian tendencies in several middle power countries in the Global South that 'goes beyond conventional middle power behavior as the governments increasingly employ coercive foreign policy and aggressive militaristic methods' with the aspiration to have agency and a meaningful leadership role within international politics.

Recently, home-grown military technologies, especially drones, have become an important material feature of unusual middle power activism as the countries in the Global South seek to challenge the traditional power configurations of world politics. After decades of US and Israeli dominance, first China and then Iran, India, Saudi Arabia, South Korea, Taiwan and Turkey entered the drone market. Turkey made major inroads into the armed drone market[2] as a producer and an exporter.

The existing research on drone technologies in middle powers in the Global South explores its outcomes for foreign policy behaviour and warfare capacity (Farooq 2019; Kasapoğlu 2020; Milan and Tabrizi 2020; Outzen 2021; Urcosta 2021; Gartzke and Walsh 2022) and implications for international politics and global security (Mayer 2015; Horowitz, Kreps, and Fuhrmann 2016; Fuhrmann and Horowitz 2017; Ayanoğlu 2022; Borsari 2022; Lushenko, Bose, and Maley 2022). Yet the literature to a great extent fails to make the connection to domestic politics (but see Kutlay and Öniş 2021) and regime survival. We argue that drone-based (unusual) middle power activism not only extends the countries' sphere of influence in regional and international politics but also bolsters nationalist sentiments and boosts political support for the regime at home. In autocratic regimes where regime survival requires more effort compared to fully consolidated authoritarian or democratic regimes (Tansey, Koehler, and Schmotz 2017; Debre 2022), it is more likely that politicians will pursue ambitious goals that are beyond their conventional material and ideational capabilities. Drones serve this policy agenda.

We show that drone-based middle power competencies promote regime survival in three ways (see Table 3). First, the production of drone technology promotes defence sector-driven 'techno-nationalism' and produces a regime-boosting effect. The government-controlled media contributes to pursuing governments' political agenda and fuels the unusual power activism by showcasing the success of drone operations. The presentation of military tech in the media and nationwide events appeals to national pride and boosts regime support. Second, military tech allows governments to effectively fight against security threats and interfere in regional conflicts in their immediate neighbourhood. This boosts their scope of influence as a middle power and strengthens their regional leadership but also increases the credibility of the governments as they shape regional order and promote border security.

Table 3. Middle power competencies and strategies for regime survival.

Drone-based middle power competencies	Strategies for promoting regime survival
Production and presentation	Promotion of techno-nationalism and national pride
Intervention in regional conflicts	Strengthening border security and shaping regional order
Export and technology transfer	Contestation of global dynamics on the grounds of national interests and independence

Third, military technology transfer and arms sales in their neighbourhood promote the prestige and reputation of the middle powers (von Soest 2015), and allow them to contest the norms and practices of the liberal world order on the grounds of national interests, security and independence (Börzel and Zürn 2021; Kutlay and Öniş 2021). This, in turn, bolsters the legitimacy of the governments in the eyes of their domestic constituencies and facilitates the maintenance and survival of the regime (Tansey, Koehler, and Schmotz 2017; Kneuer and Demmelhuber 2021).

The global proliferation of drones and Turkey's rise as a manufacturer

Drones, or unmanned aerial vehicles (UAVs), are widely considered a symbol of technological prowess in international affairs. During the Cold War, only the two superpowers and Israel possessed this technology. Drones were used by Israel in the Lebanon War in 1982 and by the US in the First Gulf War in 1991 (Soliman 2022). Throughout 1990s, the US and Israel remained the sole users of combat drones.

Unmanned vehicles appeal to decision makers and political leaders because they provide a relatively low-cost option to pursue strategic objectives without putting troops in danger (Gartzke and Walsh 2022). With the advancement of navigation, imaging and other technologies, drones have come to be used for intelligence, surveillance, target acquisition, and reconnaissance (ISTAR) in hybrid battlefields. Combined with electronic warfare capabilities that overwhelm air defence systems, armed drones have proven effective in precision strikes.

Despite the growing interest in procuring drones, the export of this technology has been limited due to regulations and high diligence by the manufacturers. Those who were unable to obtain drones from the US and Israel faced two options: initiate domestic development programmes or procure drones from alternative sources (Milan and Tabrizi 2020). The arrival of armed drone platforms produced by China disrupted the duopolistic market structure. Over the past decade, Chinese firms exported drones to at least 13 countries (Defense Procurement International 2021). A few others, including Iran, started their own drone development programme (United States Institute of Peace 2021). As drones proved useful in various battlefield roles, the desire to develop domestic armed drones spread to other countries such as Pakistan, Russia, Taiwan, India and Turkey (Ayanoğlu 2022).

In the background of Turkey's meteoric rise as a drone manufacturer is Ankara's long-standing aspiration to reduce import dependency by developing a domestic defence sector. Turkey has historically been dependent on its western allies for defence procurement. Under the support programme initiated during the Truman Presidency, the needs of the Turkish Air Force (TAF) were nearly exclusively supplied by the US throughout 1950s and early 1960s. An early warning call regarding Turkey's growing dependency was the 1964 Johnson Letter, which sought to prevent Ankara from using US-supplied military equipment in Cyprus. The US would impose an arms embargo on Turkey from 1975 to 1978, in response to Turkey's Cyprus Peace Operation in 1974.

It is at this time that Ankara took the first steps towards a new defence industry by setting up defence companies, including Aselsan in 1975, a major contractor today. The next big step was the 'Armed Forces Modernization Project' in 1985. Endowed with a considerable research and development budget, this project aimed at increasing the share of domestic production (Akça and Özden 2021). To regulate the private companies involved in

modernisation, the Undersecretariat for Defense Industries (*Savunma Sanayii Müsteşarlığı*) was established in 1985. The Undersecretariat would later be converted to the Presidency of Defense Industries (*Savunma Sanayii Başkanlığı*).

Ankara's interest in UAVs can be traced back to late 1980s. The first drone to enter the inventory was the Banshee target drone produced by Meggitt Defense Systems, followed by CL-90 surveillance drones from Germany in 1994. However, due to technical and logistical issues, these could not be put into effective use (Kınık and Çelik 2021, 177). The most important procurement at the time was the purchase of six GNAT-type drones from American General Atomics in 1995. Turkey initiated domestic development in 1990s when Turkish Aerospace (TAI) produced a series of unarmed UAV prototypes.

In 2010, Ankara decided to purchase 10 unarmed Heron-type drones from Israel. However, this acquisition was marred by slow delivery times and technical issues. Besides, Herons needed to be piloted by Israeli personnel, raising security concerns in Ankara. The diplomatic falling-out in 2010 brought an end to Turkey's procurement from Israel. The TAF continued to rely on signals intelligence from the US. Washington, however, refused to sell armed drones to Turkey.

It was once again the concern over foreign dependency that incentivised Ankara to take the next step in developing domestic capabilities. The two most promising programmes were Turkish Aerospace Industries (TUSAŞ)'s Anka and Bayraktar drone projects. Anka, a long-endurance high-altitude platform, was put on a fast track. In 2012, the second phase of development of the Bayraktar platform was launched, which would ultimately produce Bayraktar Tactical Block 2 (TB2). TB2 is classified as a medium-altitude long-endurance (MALE) UAV, with remote control and some autonomous flight capabilities. The noteworthy feature of the relatively affordable TB2 is its payload capacity of four laser-guided smart munitions (Baykar Tech 2022). The development of Bakraktar drones is masterminded by Selçuk Bayraktar, who is married to President Erdoğan's youngest daughter. Today, Baykar Tech has become the preferred drone manufacturer for Turkey and a top defence exporter (Pitel and Jalabi 2022).

Turkey's drone warfare and its regime-boosting effects

Turkey's remarkable rise as a drone power has closely shaped its middle power activism. We illustrate the domestic policy impact of home-grown technologies in Turkey as an unusual middle-range power by identifying strategies for the promotion of regime survival. The production and presentation of home-grown drones promote techno-nationalism at home. The government also increases its credibility in the eyes of its constituencies and enhances its domestic support via strengthening security and stability by using drones within and outside its borders. Finally, the export of Turkish drones empowers the incumbents to contest the global dynamics on the ground of national interests, self-sufficiency, and independence and to bolster national confidence, therefore mobilising further political support for the government.

Promotion of techno-nationalism and national pride

Turkey's embrace of drone technology can be viewed within the context of resurgent techno-nationalism. Techno-nationalism is based on a 'recognition that a nation's technological

innovation and capabilities are directly linked to its national security, economic prosperity, and social stability' (van Manen et al. 2021, VI). The 'old' techno-nationalism in the 1990s embraced globalisation while also pursuing technological diffusion. Over the past two decades, a 'new' form of techno-nationalism emerged, one that reflects both the decline of globalisation and the return of great power competition (Luo 2022). As the rivalry between the US and China has intensified, they have come to rely on regulatory restrictions to out-innovate each other in strategic sectors (Kennedy and Lim 2018) while seeking to reduce reliance on global supply chains (Bloomberg 2022). Domestically, the ability to innovate technology has become a key component of performance legitimacy. Under Xi Jinping and the Chinese Communist Party (CCP)'s signature 'China Dream', technological self-reliance came to be viewed as a measure of regime success (Wang 2014).

While the literature emphasises techno-nationalism in great powers, the strategies of middle powers are also shaped by techno-nationalism. Adversely affected by the uncertainty generated by great power transition, middle powers seek to reduce their exposure to systemic risk by developing domestic capabilities. At the same time, the shift in the international order allows room for some middle powers to influence emergent regional orders. At a time of systemic uncertainty and a push for strategic autonomy, techno-nationalism promotes a stronger sense of national unity and identity. National pride in technological prowess not only helps mobilise resources but also legitimises the political regime.

Turkey provides a compelling case of resurgent techno-nationalism in a middle power. The AKP, in power since 2002, has embraced the use of national defence industries to instil a sense of national pride and prestige. The official political discourse highlights the development of a domestic defence sector as an indicator of both the strength of political leadership and the potential of Turkey as a regional power. The 2023 Policy Vision document of the AKP states (Justice and Development Party 2022):

> Our vision of regional and global leadership requires an effective, modern, and deterrence-capable military. The development of the national defense industry is imperative for increasing the capacity and capabilities of the Turkish Armed Forces. Our defense industry made great strides under our government. Our country was incapable of manufacturing even a simple rifle; now, we can produce our own national tank. We finalized the infrastructure to produce our first-ever national tank, 'Altay'. We started the test flight for 'Anka', our unmanned aerial vehicle capable of flying for 24 hours at an altitude of 10000 meters. We increased the share of indigenous manufacturing and technology to 50 percent in the procurement of arms and equipment. We are an arms exporter now. Part of our 2023 Vision is for Turkey to be a country that designs and manufactures all its defense needs.

Ongoing flagship national projects like the main battle tank Altay and the fighter jet TAI TF-X are featured in campaign speeches, electoral ads on billboards, and government-affiliated social media accounts as symbols of Turkey's growing self-sufficiency in the defence sector.

It is within this highly politicised context that drones captured the imagination of the Turkish public as a highly visible symbol of state power. The transformation of Turkey from an importer to one of 'the most advanced new developers of drones' (Farooq 2019) and 'an important player in the global drone market' (Brownsword 2021) was presented as a 'techno-scientific breakthrough' in the country's history. The videos of Bayraktar drones went viral, watched by millions, and turned Selçuk Bayraktar into a national celebrity, a drone hero. Defence analysts point to Turkey as a success case that proves 'if a mid-size power puts

its mind and its money into drones, it can develop something very sophisticated' (Harding 2021, 2).

Turkey's drone programme has emerged as the centrepiece of the National Technology Initiative (*Milli Teknoloji Hamlesi*). Implemented by the Ministry of Industry and Technology, the initiative aims to substantially increase in-house design, produce high-end technology systems, and widen the country's capabilities in key high-tech sectors (T.C. Sanayi ve Teknoloji Bakanlığı 2019). Mustafa Varank, the Minister of Industry and Technology, called the initiative 'the singular vision to guarantee Turkey's economic and technological independence' (Duran 2022). Selçuk Bayraktar regularly gives speeches to students and young audiences to talk about the initiative and the role of Turkey's growing importance as a technological powerhouse.[3] During the Teknofest that took place in the Black Sea province of Samsun in September 2022, Baykar presented the Kızılelma drone which was described as 'a dream 20 years in the making' (TRT World 2022a).

The Teknofests, the technology festivals in various cities in Turkey, turned into platforms for promoting techno-nationalism, i.e. 'a pride in technology as a source of strength abroad that helps the government rally nationalist supporters at home' (Mandıracı 2022, 5). The image of President Erdoğan signing a Bayraktar drone at the aerospace festival in Istanbul in 2018 has become iconic, representing the unstoppable rise of Turkey, and setting young hearts ablaze with national pride (Farooq 2019).

It is worth noting that the kind of techno-nationalism that has been promoted by the government finds resonance across traditional political cleavages. Secular nationalist political actors who favour a more independent foreign policy vision for Turkey strongly support domestic defence development and the expansion of the drone programme. The leader of the Republican People's Party, Kemal Kılıçdaroğlu, who has not seen eye-to-eye with the AKP leadership on any policy issue, expressed that he was strongly in favour of Turkey's drone aspirations, noting that Ankara's interest in drone development predates the AKP.[4] Ekrem Imamoğlu, the current mayor of Istanbul and a rising figure within the opposition, visited a drone factory and met with Selçuk Bayraktar in 2019 (Cumhuriyet 2019). Meral Akşener, the leader of the second-largest opposition party with a conservative-nationalist electoral base, declared support for the drone programme, highlighting that the issue was 'beyond politics' (Haberturk 2022).

Drones bolster nationalism not only because they promote Turkey's self-sufficiency. They are also widely credited for tipping the balance in favour of the Turkish military in its fight against terrorism. The use of more advanced drone technology has emerged as a key element of the success of counter-terrorism policies, including operations beyond national borders. On 24 April 2022, *Daily Sabah* reported that combat drone Akıncı had conducted its first major offensive against Kurdistan Workers' Party (PKK) targets in northern Iraq (Daily Sabah 2022). Baykar Tech retweeted a video shared by the Ministry of National Defense featuring Bayraktar TB2 and Akıncı drones taking off from an undisclosed location and destroying targets in Northern Iraq.[5]

Turkish drones' success on the battlefields of Syria, Azerbaijan and Libya was promoted through popular videos (Borsari 2022). The drone operations in Syria in March 2020 were widely reported on TV channels and social media, accompanied by high-resolution videos of strikes against ground targets. Bayraktar TB2s were heavily featured in news reports and public discussions during the Second Nagorno-Karabakh War. Clips of drone strikes released by the Azerbaijani military were repeatedly broadcast on TV. TRT World, a government-owned

English-language TV channel, broadcast a programme called *Decoded: Turkey's Drone Power* on 21 October 2020 (TRT World 2020). Boasting about technical features of the drones, the programme highlighted that the drones took out air defence systems in Libya and Syria and even Russian-made T-72 tanks operated by Armenia. The host proudly announced, 'the success shows you do not necessarily need expensive heavy weapons to tilt battlefield odds in your favor'. The battlefield effectiveness contributed to the reputation of Turkish drones and strengthened existing partnerships and created new ones (Fahim 2020). At home, Turkish drones have become a source of national pride and created regime-boosting effects for the incumbent government.

Strengthening border security and regional order

Turkey's drone programme had a key impact on its military capabilities as a middle power. In the last decade, Turkey found itself entangled in several regional conflicts. Particularly after 2016, the Turkish military conducted several cross-border operations in the name of strengthening border security and regional stability.

The first theatre of Turkey's drone warfare was Libya. Ankara had key interests in Libya, ranging from the protection of investments by Turkish businesses to maritime disputes in the Eastern Mediterranean. Turkey was involved in supporting the United Nations-recognised Government of National Accord (GNA) which was fighting the Libyan National Army (LNA) led by General Haftar. Turkey's support of the GNA included intelligence and operational assistance through UAV systems. Bayraktar TB2s were used to carry out operations over Libyan airspace, facilitating GNA forces' strike against the LNA airbase in Jufra (Milan and Tabrizi 2020). On 25 March, GNA launched Operation Peace Storm, during which the Turkish drones played a key role. They proved their effectiveness by destroying Russian-built Pantsir-S1 air defence systems (Synovitz 2020). By early June, the GNA counteroffensive managed to force LNA out of Tripoli, shifting the balance of power in GNA's favour.

Drone warfare in Libya also witnessed a competition between the Chinese-made Wing Loong II drones operated by the United Arab Emirates (UAE) and Turkey's Bayraktar TB2 and Anka-S. Turkey's signal intelligence capabilities proved effective in guiding the deployment of Turkish anti-drone systems to jam and neutralise Wing Loong drones (Times Aerospace 2020). Overall, drone platforms played a crucial role in Turkey's efforts to shape the conditions on the ground, which reinforced Ankara's role in the Libyan conflict.

The second major battlefield test for Turkish drones was in Syria. Turkey was involved in the conflict by supporting the Free Syrian Army and various armed groups opposing the Assad regime. Ankara was increasingly concerned about claims of autonomy by Kurdish groups in northern Syria and the Islamic State of Iraq and the Levant (ISIS) threat. In the second half of 2015 there were several ISIS terror attacks in Turkey, and throughout the spring of 2016 southern regions of Turkey were targeted by rockets fired from northern Syria. Turkish decision makers were convinced that border security necessitated the establishment of safe zones. To that end, a series of operations were launched in northern Syria, namely Operation Euphrates Shield (August 2016–March 2017), Operation Olive Branch (January–March 2018), Operation Peace Spring (October–November 2019), and Operation Spring Shield (February–March 2020).

Turkish drones were used in these operations. Particularly during Operation Spring Shield, Turkey deployed both the Bayraktar TB2 and Anka systems. The combined use of drones,

land-based fire support and manned aircraft proved highly effective (Kasapoğlu 2020). In addition, newly developed electronic warfare capabilities, including Turkey's own KORAL system, increased the impact of the UAV platforms. While Turkey's drones suffered a high rate of attrition against Russian defences in Syria (Stein 2021), the relatively low cost of TB2s facilitated the continued use of these systems. The drone operation that Turkey launched on 1 March 2020 against Syrian regime forces was hailed as 'the first and largest demonstration of a coordinated mass of drone strikes' (Brownsword 2020). For five days, hundreds of drone strikes were launched against high-value targets including air defence systems and weapons depots.

The Turkish drone fleet is of potential importance to Turkey's deterrence capabilities in the Aegean and the Eastern Mediterranean, where Ankara has several strategic objectives. If placed in Northern Cyprus, drones could help Ankara project power around the island. The relatively narrow Aegean Sea, where there is an enduring maritime dispute between Turkey and Greece, is suitable for drone operations. The Turkish Navy deploys UAV platforms for long-endurance sea control and surveillance missions (Düz 2021, 16). Turkish state-owned media channels recently reported, based on Greek sources, that Turkey's drones are a 'focal point of attention' for the Greek military, which is concerned about the 'increasing threat' they pose (TRT World 2022b). Greece has been setting up an Israeli-made 'Drone Dome' system which reportedly has the 'capability of disorienting the flight plans of TB2s and Anka-S' (Hurriyet Daily News 2022).

Turkey's domestic drone fleet has been also deployed in operations against the PKK both on Turkish soil and in northern Iraq (Outzen 2021). In only one of these operations in 2018, 449 terrorists were killed, which was one of the highest official casualty figures in Turkey's anti-terrorism operations (Anadolu Agency 2018). It is claimed that the armed drones have been a game-changer in Turkey's nearly four-decade-old counter-terrorism campaign, allowing the security forces to establish control over the hard-to-reach mountainous areas of south-east Turkey. Over the past few years, the Turkish military managed to push the PKK away from its territory towards Iraqi and Syrian soil (Çevik 2022). The ratio of fatalities of PKK militants to state security forces, an indicator of the changing balance of power on the battlefield, has increased by more than four-fold since July 2015.

The effective use of drone technology in internal and regional disputes contributed to the government's policies to make Turkey a regional power and ensured border security and regional stability. More importantly, this drone-based military success mobilises domestic support for the AKP to stay in power (Neset et al. 2021). It is argued that recent operations where the Turkish army heavily used home-grown technologies garnered around 70% overall support. Even the opposition parties showed support for the military operations in northern Syria (Neset et al. 2021,15).

Contestation of global dynamics

The third channel through which Turkey's drone capabilities boost regime survival involves exports and bilateral defence cooperation. Turkey's drone programme had a major impact on the global landscape (Die Welt 2021; Financial Times 2022; Forbes 2021). 'Turkey's use of drones', Fukuyama wrote, 'is going to change the nature of land power in ways that will undermine existing force structures, in the way that the Dreadnought obsoleted earlier classes of battleships, or the aircraft carrier made battleships themselves obsolete at the

beginning of World War II' (Fukuyama 2021). British Defence Secretary Wallace remarked Turkish drones were 'game-changing' (quoted in Anadolu Agency 2020). Others raised concerns over the potential impact of the use of drones in conflict areas such as Ethiopia (Farooq 2022).

Turkey was identified as one of the four 'emerging suppliers in global arms trade' in 2020 (Béraud-Sudreau et al. 2020). There are no official statistics on drone sales, but open-source data on various deals indicate a fast-growing market for Turkish drones. According to Selçuk Bayraktar, as of September 2022, TB2s were being exported to 24 countries (Anadolu Agency 2022a) with new deals under negotiation. Besides Baykar, several companies seek to export drones, including TAI (which produces Anka and Aksungur), STM (Kargu, Alpagu and Togan) and Vestel (Karayel).

Due to the confidentiality of sales, we have only a partial list of countries that purchased Turkish drones. As of 2022, these include Azerbaijan, Kazakhstan, Kyrgyzstan, Libya, Morocco, Poland, Qatar, Saudi Arabia, Tunisia, Turkmenistan, the UAE and Ukraine. Turkish drone exports started in 2018 when Qatar agreed to buy Bayraktar TB2s as part of a larger arms deal (The Defense Post 2018). The second customer was Ukraine, which signed a deal with Turkey in 2019 to collaborate on the development and sale of TB2s. In December 2020, Tunisia purchased three Anka-S drones (The Defense Post 2020). The most significant sale was to Azerbaijan in June 2020, a few months before the start of the Second Nagorno–Karabakh War. During this short yet decisive conflict, Azerbaijan made extensive use of Bayraktar TB2s which inflicted heavy losses on the Armenian military (CSIS 2020). The battlefield effectiveness of Turkish-made drones boosted sales. Tunisia and Morocco opted for Turkish drones following their performance in Libya (Düz 2021, 30). In May 2021 Poland signed a contract for 24 TB2s, becoming the first North Atlantic Treaty Organization(NATO) ally and EU member to do so. Albania, Bulgaria, Czechia and Hungary are likely to follow suit (Kınık and Çelik 2021, 177).

The growing popularity of Turkish drone exports has important implications. First, export revenues increase the long-term sustainability of the defence sector, which is key to Turkey's middle power status. In the absence of significant public spending on defence development, Turkish defence industries require export revenues to be sustainable (Bağcı and Kurç 2017). Drone deals often go beyond one-time sales and include extended services such as training, maintenance and provision of spare parts, indicating a larger revenue stream. Drone sales often have a spillover effect, facilitating more extensive bilateral deals including the export of other military equipment such as armoured vehicles (Khan 2021).

Second, by diversifying its export portfolio, Turkey has positioned itself as an alternative supplier for those who have not been able to access the latest technology from the US and other arms sellers (Farooq 2022). The newfound role as an up-and-coming arms exporter helps raise Turkey's profile as an emerging middle power. Drone sales to Qatar and Azerbaijan consolidated Turkey's relations with these states which are critical for a wide range of Turkish interests. Drone diplomacy has allowed Ankara to pursue a partnership with Ukraine. On 3 February 2022, a few weeks before Russia's invasion, Ankara and Kyiv signed a Free Trade Agreement including a joint drone production deal. Drones emerged as an important tool for Turkey's economic and diplomatic engagement in Africa, where several states expressed interest in defence cooperation (BBC News 2022).

Third, Turkey's rise as a drone power has been a source of regional and global prestige. The role that Bayraktar TB2s played in Ukraine's defence against Russia brought additional

exposure to Turkey's drones. In the first four months of the war, Baykar Tech supplied at least 50 TB2s to Ukraine (Middle East Eye 2022). Flying at low altitudes to avoid Russia's air defence systems and taking out Russian armoured vehicles, TB2s were instrumental in slowing Russia's initial advance (Rossiter and Cannon 2022, 220). The Turkish-made drones' apparent success brought them into the international spotlight. TB2 strikes were featured in viral videos and even a patriotic Ukrainian song called 'Bayraktar'. Civilians in Norway, Poland and Canada organised campaigns to raise funds to purchase drones for Ukraine (Anadolu Agency 2022b). In response to the crowdfunding campaigns, Baykar donated several TB2s to Ukraine as well.[6]

The conflict in Ukraine had a dual impact on Turkey's middle power status. On the one hand, Ankara's willingness and capacity to provide critical arms to Ukraine has raised its international profile. The TB2s apparent success[7] in Ukraine brought new marketing opportunities. 'After Ukraine', Bayraktar said, 'the whole world is a customer'.[8] On the other hand, Turkey's role in the Ukrainian conflict highlighted the potential costs of being a proactive middle power. Moscow, still a key partner to Ankara in many issues from energy security to the Syrian conflict, reportedly expressed displeasure about Ukraine's use of Turkish-made drones. Keen on balancing its ties to Russia, Turkish officials highlighted that the drones were brought from a private Turkish company, and did not constitute aid to Ukraine (Reuters 2022).

Fourth, Ankara's ambition to use drone technology for international influence will likely impact Turkey's relations with NATO. Turkey's increasing power projection capability is an asset to NATO's deterrence capabilities. Also, as several NATO allies plan on increasing their defence spending, there will be more opportunities for Turkey to pursue bilateral drone diplomacy. In addition to Poland, the first NATO member to buy Turkish drones, several others including Hungary, Romania and the Baltic countries signalled interest in acquiring Turkish drones. However, Turkey's growing salience as a source of military technology to NATO members may also be seen as undermining the 'traditional monopoly of states over weaponry and the legitimate use of force' (Missiroli 2020). The relations between Turkey and NATO have been strained due to the disagreement over Ankara's acquisition of S-400s from Russia. Going forward, Ankara's balancing act between Washington and the Kremlin will be a major constraint on Turkey's ability to leverage its position as a drone power.

Fifth, Turkey's rise as a drone power challenges global norms and practices of proliferation. Turkey's ability to mass-produce affordable UAV platforms highlights issues of international export controls and regulations (Forbes 2022). Initially, Turkey's exports were driven by market acquisition and profit maximisation. As Turkey becomes an established drone power, decision makers will face stricter due diligence requirements. At the same time, as one of the major players in the drone market as well as one of the few powers with extensive experience in deploying drones on the battlefield, Turkey can be expected to wield influence over an international regime of drone proliferation. This would in turn enhance Turkey's middle power credentials.

Lastly, the growing popularity of Turkey's drones not only bolstered AKP's position in domestic politics but also contributed to Turkey's ability to contest global dynamics as a middle power. The production and sale of Turkish drones as an alternative to Western exporters effectively reinforced the dominant discourse of technological self-sufficiency and national power. Announcing that 'Turkey has risen to the world's top three in combat drone technology', President Erdoğan heralded his slogan 'the world is bigger than five' (Anadolu Agency 2021). Turkey's rise as a drone power has contributed to narratives that contest the

global power dynamics on the grounds of national interests, independence and domestic security (Cagaptay and Outzen 2022).

Conclusion

This paper explored how emerging middle powers benefit from the use and diffusion of home-grown military technologies at home and in their regions. By bringing insights from Turkey as a new drone power, we showed that drone warfare has considerably raised the international profile of the country's burgeoning defence sector and contributed to its middle power activism. Ankara gained significant technical and military leverage in regional disputes and managed to act beyond its conventional warfare capabilities in the Middle East, North Africa, the Caucasus, and the Black and Mediterranean seas. The military technology also enabled Turkey to position itself as an alternative source for arms sales and consolidate new alliances in its neighbourhood. Turkish drones have found their way to various countries, from Qatar and Azerbaijan to Poland and Libya. At home, Turkey's increasing drone-based middle power competencies bolstered national confidence and generated regime-boosting effects for the government.

The large-scale production of drones turned Turkey into a main player in the global drone market. Showcased through government-controlled channels, the success of Turkish drones on the battlefields inside and beyond Turkey's borders has promoted nationalist feelings. The drones have turned into symbols of pride and attracted the masses to visit the technofests organised in various cities in Turkey. The use of drones also strengthened the military capacity of Turkey to expand its web of access into hard-to-reach territories in the country's south-east and in northern Iraq and conduct effective cross-border operations. . The counter-terrorism operations in Iraq and Syria, supported by the majority of the public and even by opposition parties, ensured border security and restored confidence in the government. Drones have enabled Turkey to stretch its military muscles abroad. The increasing number of countries demanding to buy combat-proven drones has situated Turkey as an alternative source of military technology and strengthened the ability of the government to contest global power configurations. This again bolstered the prestige of the government and triggered a rally effect within the electorate. While drone technology has promoted the political agenda of the Turkish government and its middle power activism, it raised international concerns regarding effective oversight and appropriate regulation, especially after claims that Ethiopia used drones to bomb civilians.

The findings of this article have implications for the research on middle power activism and liberal world order. For countries like Turkey with an enthusiastic regional agenda, the development, use and transfer of military technologies are increasingly becoming a way to promote its assertive foreign policy agenda in its region with regime-boosting effects at home.

Coupled with increasingly authoritarian tendencies, such a policy agenda limits the opportunities for opposition parties to contest government policies on the grounds of democracy and human rights. A similar pattern can also be observed in several middle power countries in the Global South where leaders show less commitment to democratic reforms and international norms. This may lead to the formation of new alliances or informal regional coalitions among like-minded regimes which may generate domestic regime-boosting effects for their leaders. However, the unusual middle power activism in the Global South is

likely to further undermine the stability of the liberal world order. Future research could investigate connections between the international, regional and domestic dynamics of regime survival in the emerging middle powers.

Acknowledgements

An earlier version of this paper was presented at the ECPR Joint Sessions Workshop on Authoritarian Regimes in Regional and Global Governance Institutions, on 19–22 April 2022 at the University of Edinburgh. We are grateful to workshop organisers Maria Debre and Daniëlle Flonk and the participants of the workshop as well as the two anonymous reviewers for their helpful comments and feedback.

Disclosure statement

No potential conflict of interest was reported by the authors.

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Notes

1. Drones or unmanned aerial vehicles (UAVs) are aircraft without human pilots on board. Some drone systems are piloted remotely while others with advanced artificial intelligence have autonomous flight capabilities.
2. For a comprehensive overview of the global drone market, see https://www.newamerica.org/international-security/reports/world-drones/
3. For example see Anadalu Ajansı, https://www.aa.com.tr/tr/sirkethaberleri/vakif-dernek/selcuk-bayraktar-milli-teknoloji-hamlesi-programinda-aciklamalarda-bulundu/671288
4. Kılıçdaroğlu'ndan, İHA ve SİHA açıklaması: Erdoğan'dan önce ben destekledim, 12 March 2022, Son Dakika, https://www.sondakika.com/haber/haber-kilicdaroglu-ndan-iha-ve-siha-aciklamasi-14792406/

5. See https://twitter.com/BaykarTech/status/1517442943161933824?s=20&t=NKm2UnRGEP-j0q-aPjwfJQA
6. https://www.reuters.com/world/turkeys-baykar-donate-three-uavs-ukraine-after-crowdfunding-campaign-2022-06-27/
7. There is ongoing debate about the effectiveness of Ukrainian drones against improved air defences. https://eurasiantimes.com/bayraktars-are-falling-turkeys-much-hyped-tb2-drones-are-losing-stream/
8. See the interview here: https://www.reuters.com/business/aerospace-defense/exclusive-after-ukraine-whole-world-is-customer-turkish-drone-maker-says-2022-05-30/

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Bibliography

Akça, İ., and B. A. Özden. 2021. "An Economic-Political Map of the Turkish Defense Industry". Heinrich Boll Stiftung. https://tr.boell.org/en/2022/05/23/political-economic-map-turkish-defense-industry

Anadolu Agency. 2018, April 19. "Force Multiplier of Military Operations: Unmanned Aerial Vehicles." https://www.aa.com.tr/tr/analiz-haber/askeri-harek%C3%A2tlarin-kuvvet-carpani-insansiz-hava-araclari/1122660

Anadolu Agency. 2020, July 16. "UK Defense Chief: Turkish Use of Drones Game-Changing." https://www.aa.com.tr/en/energy/energy-diplomacy/uk-defense-chief-turkish-use-of-drones-game-changing/29913

Anadolu Agency. 2021, August 29. "Turkey Among Top 3 Countries in World in Combat Drone Technology." https://www.aa.com.tr/en/science-technology/turkey-among-top-3-countries-in-world-in-combat-drone-technology/2349922

Anadolu Agency. 2022a, September 1. "Turkish Bayraktar TB2 Drone Being Exported to 24 Countries." https://www.aa.com.tr/en/economy/turkish-bayraktar-tb2-drone-being-exported-to-24--countries/2674313

Anadolu Agency. 2022b, July 22. "Fundraising Campaigns for Purchase of Türkiye's Bayraktar TB2 Drone Spreading in West." https://www.aa.com.tr/en/europe/fundraising-campaigns-for-purchase-of-turkiyes-bayraktar-tb2-drone-spreading-in-west/2643106#:~:text=The%20campaign%20%22Give%20a%20Bayraktar,for%20the%20same%20purpose%20continues

Ayanoglu, H. T. 2022, February 23. "The Future of Drones in the Indo-Pacific." *The Diplomat*. https://thediplomat.com/2022/02/the-future-of-drones-in-the-indo-pacific/

Aydın, U. 2021. "Emerging Middle Powers and the Liberal International Order." *International Affairs* 97 (5): 1377–1394. doi:10.1093/ia/iiab090.

Bağcı, H., and Ç. Kurç. 2017. "Turkey's Strategic Choice: Buy or Make Weapons?" *Defence Studies* 17 (1): 38–62. doi:10.1080/14702436.2016.1262742.

Baykar Tech. 2022. "Bayraktar TB2." http://www.baykartech.com/en/uav/bayraktar-tb2/

BBC News. 2022, August 25. "Turkey's Bayraktar TB2 Drone: Why African States Are Buying Them." https://www.bbc.co.uk/news/world-africa-62485325

Beeson, N., and R. Higgott. 2014. "The Changing Architecture of Politics in the Asia-Pacific: Australia's Middle Power Moment?" *International Relations of the Asia-Pacific* 14 (2): 215–237. doi:10.1093/irap/lct016.

Béraud-Sudreau, L., D. L. da Silva, A. Kuimova, and P. D. Wezeman. 2020. "Emerging Suppliers in the Global Arms Trade." Insights on Peace and Security, SIRPI (Stockholm International Peace Research Institute).

Bloomberg. 2022. "U.S. Has Potential to Reduce Chinese Technology Supply Chain Dependency by 20-40% by 2030." https://www.bloomberg.com/company/press/u-s-has-potential-to-reduce-chinese-technology-supply-chain-dependency-by-20-40-by-2030-findsbloomberg-intelligence/

Borsari, F., 2022. January 31. "Turkey's Drone Diplomacy: Lessons for Europe, European Council on Foreign Relations." https://ecfr.eu/article/turkeys-drone-diplomacy-lessons-for-europe/

Börzel, T., and M. Zürn. 2021. "Contestations of the Liberal International Order: From Liberal Multilateralism to Postnational Liberalism." *International Organization* 75 (2): 282–305. doi:10.1017/S0020818320000570.

Brownsword, S. 2020, June 15. "Turkey's Unprecedented Ascent to Drone Superpower Status." Drone Wars UK. https://dronewars.net/2020/06/15/turkeys-unprecedented-ascent-to-drone-superpower-status/

Brownsword, S. 2021, July 5. "Turkey Driving Drone Proliferation in Its Quest for Market Supremacy. Drone Wars UK. https://dronewars.net/2021/07/05/turkey-driving-drone-proliferation-in-its-quest-for-market-supremacy/

Cagaptay, S., and R. Outzen. 2022. "Drones and Resets: The New Era of Turkish Foreign Policy. The Washington Institute for near East Policy." *Baku Dialogues* 5 (4): 52–67.

Carr, A. 2014. "Is Australia a Middle Power? A Systemic Impact Approach." *Australian Journal of International Affairs* 68 (1): 70–84. doi:10.1080/10357718.2013.840264.

Çevik, S. 2022. "Turkey's military operations in Syria and Iraq." Stiftung Wissenschaft und Politik (SWP), Berlin. Comment 37.

Chapnick, A. 1999. "The Middle Power." *Canadian Foreign Policy Journal* 7 (2): 73–82. doi:10.1080/11926422.1999.9673212.

Cooper, A. F. 2013. "Squeezed or Revitalised? Middle Powers, the G20 and the Evolution of Global Governance." *Third World Quarterly* 34 (6): 963–984. doi:10.1080/01436597.2013.802508.

Cooper, A. F., R. Higgott, and K. R. Nossal. 1993. *Relocating Middle Powers: Australia and Canada in a Changing World Order*. Vancouver: UBC Press.

Coşkun, A. 2022, February 12. "Strengthening Turkish Policy on Drone Exports." Carnegie Endowment for International Peace. https://carnegieendowment.org/2022/01/18/strengthening-turkish-policy-on-drone-exports-pub-86183

Crisis Group. 2022. "Turkey's PKK Conflict: A Visual Explainer." https://www.crisisgroup.org/content/turkeys-pkk-conflict-visual-explainer

CSIS. 2020. "The Air and Missile War in Nagorno-Karabakh: Lessons for the Future of Strike and Defense." https://www.csis.org/analysis/air-and-missile-war-nagorno-karabakh-lessons-future-strike-and-defense

Cumhuriyet. 2019, August 9. "Ekrem İmamoğlu'ndan Erdoğan'ın damadına ziyaret." https://www.cumhuriyet.com.tr/haber/ekrem-imamoglundan-erdoganin-damadina-ziyaret-1527054

Daily Sabah. 2022, April 4. "Anti-PKK Op in Iraq Marks First Engagement for Turkish Combat Akıncı Drone." https://www.dailysabah.com/business/defense/anti-pkk-op-in-iraq-marks-first-engagement-for-turkish-combat-akinci-drone

Debre, M. J. 2022. "Clubs of Autocrats: Regional Organizations and Authoritarian Survival." *The Review of International Organizations* 17 (3): 485–511. doi:10.1007/s11558-021-09428-y.

Defense Procurement International. 2021. "Why China's Armed UAVs Are a Global Export Success, and Its Fighter Jets, Not So Much." https://www.defenceprocurementinternational.com/features/air/china-has-disrupted-the-military-drone-market

Die Welt, G. 2021, June 9. "Killer-Drohne der Türkei: Die Bayraktar TB2 wird zum Exportschlager." DIE WELT. https://www.welt.de/wirtschaft/article231640723/Killer-Drohne-der-Tuerkei-Die-Bayraktar-TB2-wird-zum-Exportschlager.html

Duran, B. 2022. "Sanayi ve Teknoloji Bakanı Mustafa Varank: "Milli Teknoloji Hamlesi Bu Ülkenin Hem Geleceği Hem Refahı Hem de Bağımsızlığıdır." *Kriter Dergi* 6 (65): 10–17.

Düz, S. 2021. "Unpacking the Debate on Turkish Drones." SETA (Foundation for Political, Economic and Social Research).

Fahim, K. 2020, November 29. "Turkey's Military Campaign Beyond Its Borders Is Powered by Homemade Armed Drones" *The Washington Post*. https://www.washingtonpost.com/world/middle_east/turkey-drones-libya-nagorno-karabakh/2020/11/29/d8c98b96-29de-11eb-9c21-3cc501d0981f_story.html

Farooq, U. 2019, May 14. "The Second Drone Age: How Turkey Defied the U.S. and Became a Killer Drone Power." *The Intercept*. https://theintercept.com/2019/05/14/turkey-second-drone-age/

Farooq, U. 2022, July 13. "US Struggles to Curb Turkey's TB2 Killer Drone Exports." Asia Times. https://asiatimes.com/2022/07/us-struggles-to-curb-turkeys-tb2-killer-drone-exports/
Financial Times. 2022, March 17. "Turkish Drone Success in Ukraine Sets Stage for Asia Roadshow." https://www.ft.com/content/03812d1f-6fce-4191-a3c3-0f87afbabc83
Forbes. 2021. "Cheap and Combat-Tested: The Growing Market for Turkish Drones." https://www.forbes.com/sites/pauliddon/2021/07/26/cheap-and-combat-tested-the-growing-market-for-turkish-drones/
Forbes. 2022. "From Baykar To Kyiv: Turkey's 'No Strings Attached' Drone Export Policy." https://www.forbes.com/sites/pauliddon/2022/04/13/turkeys-no-strings-attached-drone-export-policy/
Frantzman, S. 2021, June 23. "As Drones Proliferate, Authoritarian Regimes Profit." Newlines Institute. https://newlinesinstitute.org/technology/as-drones-proliferate-authoritarian-regimes-profit/
Fuhrmann, M., and M. Horowitz. 2017. "Droning on: Explaining the Proliferation of Unmanned Aerial Vehicles." *International Organization* 71 (2): 397–418. doi:10.1017/S0020818317000121.
Fukuyama, F. 2021, April 5. "Droning on in the Middle East." American Purpose. https://www.americanpurpose.com/blog/fukuyama/droning-on/
Gao, C. 2022. "How Turkey Became a Drone Superpower." The National Interest. https://nationalinterest.org/blog/reboot/how-turkey-became-drone-superpower-198938
Gartzke, E., and J. I. Walsh. 2022. "The Drawbacks of Drones: The Effects of UAVs on Escalation and Instability in Pakistan." *Journal of Peace Research* 59 (4): 463–477. doi:10.1177/00223433211044673.
Græger, N. 2019. "Illiberalism, Geopolitics, and Middle Power Security: Lessons from the Norwegian Case." *International Journal: Canada's Journal of Global Policy Analysis* 74 (1): 84–102. doi:10.1177/0020702019834982.
Grzywacz, A., and M. C. Gawrycki. 2021. "The Authoritarian Turn of Middle Powers: Changes in Narratives and Engagement." *Third World Quarterly* 42 (11): 2629–2650. doi:10.1080/01436597.2021.1960159.
Haberturk. 2022, September 28. "Teke Tek – 27 Eylül 2022: İYİ Parti Genel Başkanı Meral Akşener Habertürk'te." https://www.haberturk.com/tv/programlar/video/teke-tek-27-eylul-2022-iyi-parti-genel-baskani-meral-aksener-haberturkte/780819
Harding, S. 2021, June 1. "Turkey Uses Armed Drone Tech Nationalism to Build Influence Abroad." *The National News*. https://www.thenationalnews.com/world/asia/turkey-uses-armed-drone-tech-nationalism-to-build-influence-abroad-1.1233417
Horowitz, M. 2016. "The Ethics & Morality of Robotic Warfare: Assessing the Debate over Autonomous Weapons." *Daedalus, the Journal of the American Academy of Arts & Sciences* 145 (4): 25–36. doi.10.1162/DAED_a_00409
Horowitz, M., S. Kreps, and M. Fuhrmann. 2016. "The Consequences of Drone Proliferation: Separating Fact from Fiction." *International Security* 41 (2): 7–42. doi:10.2139/ssrn.2722311.
Hurriyet Daily News. 2022, July 5. "Greece Installs Israeli-Made Devices against Turkish Drones." https://www.hurriyetdailynews.com/greece-installs-israeli-made-devices-against-turkish-drones-175109
Jordaan, E. 2003. "The Concept of a Middle Power in International Relations: Distinguishing between Emerging and Traditional Middle Powers." *Politikon: South African Journal of Political Studies* 30 (1): 165–181. doi:10.1080/0258934032000147282.
Justice and Development Party. 2022, April 4. "2023 Siyasi Vizyon (2023 Policy Vision)." https://www.akparti.org.tr/parti/2023-siyasi-vizyon/
Kasapoğlu, C. 2020. "Turkey's Burgeoning Defense Technological and Industrial Base and Expeditionary Military Policy." *Insight Turkey* 22 (Summer): 115–130. doi:10.25253/99.2020223.08.
Kasapoğlu, C., and B. Kırdemir. 2018. "The Rising Drone Power: Turkey on the Eve of Its Military Breakthrough." *Centre for Economics and Foreign Policy Studies*. https://www.jstor.org/stable/resrep21043
Kasapoğlu, C. 2021. "Techno-Geopolitics and the Turkish Way of Drone Warfare" Atlantic Council. Issue Brief March.
Kavalski, E. 2019. "Breaking out of the Middle Power Straitjacket?." In *Rethinking Middle Powers in the Asian Century. New Theories, New Cases*, edited by T. S. de Swielande, D. Vandamme, D. Walton, and T. Wilkins, 162–173. Oxon: Routledge

Khan, B. 2021, March 21. "Qatar Will Buy Turkish Drones, Ships and Armoured Vehicles." https://quwa.org/2018/03/21/qatar-will-buy-turkish-drones-ships-and-armoured-vehicles/

Kınık, H., and S. Çelik. 2021. "The Role of Turkish Drones in Azerbaijan's Increasing Military Effectiveness: An Assessment of the Second Nagorno-Karabakh War." *Insight Turkey* 23 (Fall): 169–191. doi:10.25253/99.2021234.10.

Kennedy, A. B., and D. J. Lim. 2018. "The innovation imperative: technology and US–China rivalry in the twenty-first century." *International Affairs* 94 (3): 553–572. doi:10.1093/ia/iiy044.

Kneuer, M., and T. Demmelhuber. 2021. *Authoritarian Gravity Centers a Cross-Regional Study of Authoritarian Promotion and Diffusion, Comparative Politics Series*. Oxon: Routledge.

Kutlay, M., and Z. Öniş 2021. "Understanding oscillations in Turkish foreign policy: pathways to unusual middle power activism." *Third World Quarterly* 42 (12): 3051–3069. doi.10.1080/01436597.2021.1985449.

Luo, Y. 2022. "Illusions of Techno-Nationalism." *Journal of International Business Studies* 53 (3): 550–567. doi:10.1057/s41267-021-00468-5.

Lushenko, P., S. Bose, and W. Maley. 2022. *Drones and Global Order Implications of Remote Warfare for International Society*. Oxon: Routledge

Mandıracı, B. 2022, February 18. "Turkey's PKK Conflict: A Regional Battleground in Flux." *International Crisis Group*. https://www.crisisgroup.org/europe-central-asia/western-europemediterranean/turkey/turkeys-pkk-conflict-regional-battleground-flux

Mayer, M. 2015. "The New Killer Drones: Understanding the Strategic Implications of Next-Generation Unmanned Combat Aerial Vehicles." *International Affairs* 91 (4): 765–780. doi:10.1111/1468-2346.12342.

Middle East Eye. 2022, June 28. "Ukraine Received 50 Turkish Bayraktar TB2 Drones since Russian Invasion." https://www.middleeasteye.net/news/russia-ukraine-war-tb2-bayraktar-drones-fifty-received

Milan, F. F., and A. B. Tabrizi. 2020. "Armed, Unmanned, and in High Demand: The Drivers behind Combat Drones Proliferation in the Middle East." *Small Wars & Insurgencies* 31 (4): 730–750. doi:10.1080/09592318.2020.1743488.

Missiroli, A. 2020, May 5. "Game of Drones? How New Technologies Affect Deterrence, Defence and Security." *NATO Review*. https://www.nato.int/docu/review/articles/2020/05/05/game-of-drones-how-new-technologies-affect-deterrence-defence-and-security/index.html

Mo, J., and A. Cooper. 2011, November 4. "Middle Powers Can Punch Above Their Weight." *The Wall Street Journal*. https://www.wsj.com/articles/SB10001424052970203716204577015480229858806

Neset, S., E. M. Aydın, K. K. Balta, K. K. Ataç, H. Dikici Bilgin, and A. Strand. 2021. "Turkey as a Regional Security Actor in the Black Sea, the Mediterranean, and the Levant Region." CMI Report no. 2. Bergen: Chr. Michelsen Institute.

Öniş, Z., and M. Kutlay. 2017. "The Dynamics of Emerging Middle-Power Influence in Regional and Global Governance: The Paradoxical Case of Turkey." *Australian Journal of International Affairs* 71 (2): 164–183. doi:10.1080/10357718.2016.1183586.

Ongur, H.Ö and H. Zengin. 2016. "Transforming Habitus of the Foreign Policy: A Bourdieusian Analysis of Turkey as an Emerging Middle Power." *Rising Powers Quarterly* 1 (2): 117–133.

Outzen, R. 2021. "Deals, Drones, and National Will: The New Era in Turkish Power Projection." *The Washington Institute for Near East Policy*, Policy Notes no. 118.

Paris, R. 2019, June 18. "Can Middle Powers Save the Liberal World Order?" *Chatham House*. https://www.chathamhouse.org/sites/default/files/publications/research/2019-06-18-Middle-Powers.pdf

Parlar Dal, E. 2019. "Status-Seeking Policies of Middle Powers in Status Clubs: The Case of Turkey in the G20." *Contemporary Politics* 25 (5): 586–602. doi:10.1080/13569775.2019.1627766.

Pitel, L., and R. Jalabi. 2022, August 25. "Fast, Cheap, Deadly: The Budget Drone Changing Global Warfare." *Financial Times*. https://www.ft.com/content/948605a1-cf6c-40ea-b403-9a97d72be2cf

Reuters. 2022, March 3. "Turkey, Balancing Russia Ties, Says Drones to Ukraine Are Sales Not Aid – Sabah." *Reuters*. https://www.reuters.com/world/middle-east/turkey-balancing-russia-ties-says-drones-ukraine-are-sales-not-aid-sabah-2022-03-03/

Rossiter, A., and B. J. Cannon. 2022. "Turkey's Rise as a Drone Power: Trial by Fire." *Defense & Security Analysis* 38 (2): 210–229. doi:10.1080/14751798.2022.2068562.

Sandal, N. 2014. "Middle Powerhood as a Legitimation Strategy in Developing World: The Cases of Brazil and Turkey." *International Politics* 51 (6): 693–708. doi:10.1057/ip.2014.33.
SIPRI. 2022. "Arms Transfers Database." https://www.sipri.org/databases/armstransfers
Soliman, M. 2022. "Drones Are Re-Engineering the Geopolitics of the Middle East." *Middle East Institute*. https://www.mei.edu/publications/drones-are-re-engineering-geopolitics-middle-east
Stein, A. 2021, June 11. "Say Hello to Turkey's Little Friend: How Drones Help Level the Playing Field." *War on Rocks*. https://warontherocks.com/2021/06/say-hello-to-turkeys-little-friend-how-drones-help-level-the-playing-field/
Synovitz, R. 2020. "Technology, Tactics, and Turkish Advice Lead Azerbaijan to Victory in Nagorno-Karabakh." *Radio Free Europe/Radio Liberty*. https://www.rferl.org/a/technology-tactics-and-turkish-advice-lead-azerbaijan-to-victory-in-nagorno-karabakh/30949158.html
T.C Sanayi ve Teknoloji Bakanlığı. 2019. "2023 Sanayi ve Teknoloji Strateji Belgesi." https://www.sanayi.gov.tr/assets/pdf/SanayiStratejiBelgesi2023.pdf
Tansey, O., K. Koehler, and A. Schmotz. 2017. "Ties to the Rest: Autocratic Linkages and Regime Survival." *Comparative Political Studies* 50 (9): 1221–1254. doi:10.1177/0010414016666859.
The Defense Post. 2018, March 14. "Qatar Signs Deals for Armed Drones, Armored Vehicles and Ships from Turkey." https://www.thedefensepost.com/2018/03/14/qatar-turkey-drones-armored-vehicles-ships-deals/
The Defense Post. 2020, December 17. "Tunisia Signs $80 Million Deal for Three Turkish Anka-S Combat Drones." https://www.thedefensepost.com/2020/12/17/tunisia-buys-anka-s-drone
Times Aerospace. 2020. "Libya's Deadly Game of Drones." https://www.timesaerospace.aero/features/defence/libyas-deadly-game-of-drones
TRT World. 2020, April 3. "Decoded: Turkey's Drone Power." https://www.trtworld.com/video/others/decoded-turkeys-drone-power/5f90120e46e7130017c16ccf
TRT World. 2022a, September 3. "Selçuk Bayraktar: Türkiye Transforming to a Technology Developing Nation." https://www.trtworld.com/magazine/selcuk-bayraktar-t%C3%BCrkiye-transforming-to-a-technology-developing-nation-60434
TRT World. 2022b, September 2. "Countering Turkish Drones Major Concern for Greece: Report." https://www.trtworld.com/europe/countering-turkish-drones-major-concern-for-greece-report-60411
United States Institute of Peace. 2021. "Iran's Drone Fleet." https://iranprimer.usip.org/blog/2020/aug/20/irans-drone-fleet
Urcosta, R. B. 2021. "Turkish Drone Doctrine and Theaters of War in the Greater Middle East." *Small Wars Journal*. https://smallwarsjournal.com/jrnl/art/turkish-drone-doctrine-and-theaters-war-greater-middle-east
van Manen, H., T. Gehrke, J. Thompson, and T. Sweijs. 2021. "Taming Techno-Nationalism: A Policy Agenda." *The Hague Centre for Strategic Studies*. *Policy notes no.131*
Velazquez, N. 2021. "Rise of a 'Drone Superpower?' Turkish Drones Upending Russia's Near Abroad." Geopolitical Monitor. https://www.geopoliticalmonitor.com/turkish-drones
von Soest, C. 2015. "Democracy Prevention: The International Collaboration of Authoritarian Regimes." *European Journal of Political Research* 54 (4): 623–638. doi:10.1111/1475-6765.12100.
Wadhwa, V., and A. Salkever. 2021, July 5. "Killer Flying Robots Are Here. What Do We Do Now?" *Foreign Policy*. https://foreignpolicy.com/2021/07/05/killer-flying-robots-drones-autonomous-ai-artificial-intelligence-facial-recognition-targets-turkey-libya/
Wang, H., and W. French. 2013. "Middle Range Powers in Global Governance." *Third World Quarterly* 34 (6): 985–999. doi:10.1080/01436597.2013.802509.
Wang, Z. 2014. "The Chinese Dream: Concept and Context." *Journal of Chinese Political Science* 19 (1): 1–13. doi:10.1007/s11366-013-9272-0.
Westhuizen, J. 1998. "South Africa's Emergence as a Middle Power." *Third World Quarterly* 19 (3): 435–456. doi:10.1080/01436599814334.