M3

Multidimensional Measures of Militarization

Codebook

V.1.0 (17.11.2023)

Content

1. Introduction to the Dataset

The Multidimensional Measures of Militarization (M^3) dataset represents the most comprehensive global dataset for the multidimensional exploration of militarization. It depicts three dimensions of militarization (see next section) via 31 variables and covers the period between 1990 and 2020. It draws on a conceptualization of militarization as a multidimensional phenomenon, differentiating between the dimension of "material", "political" and "societal" militarization. The aim of the dataset is to provide data to facilitate the scholarly exploration of interactions between the different dimensions of militarization with each other, as well as with other phenomena. We therefore refrain from aggregating the individual dimensions in order to avoid hindering the datasets use as a modular data source and to enable all users to pursue their own research in this area as freely as possible. However, our own understanding of militarization as a three-dimensional phenomenon is reflected in the presentation of the data.

The Codebook is structured as follows: In the first section, we introduce our own concept of militarization understood as an increase in military resources and influence which takes place in three dimensions. Thereafter we introduce some basic variables like the different country and regional codes. In the following three sections, all variables that are assigned to the different dimensions of "material", "political" and "social" militarization are presented and explained.

2. Militarization as Increase in Military Resources and Influence

We depart from an institutionalist perspective and understand the military not only as an instrument for state defense but as a political institution that interacts with politics, economy and society. This interaction forms particular military-government and military-society relations (Rukavishnikov and Pugh 2006) that grant the military different influence and resources.

We understand processes, in which the military[1] gains more influence vis-a-vis the society and the political regime as "militarization". This is in line with Bowman (2002), who identifies three dimensions of militarization – material, political and social – and resonates with Stearn's definition of demilitarization as a process of "reducing the role of the military in the political and social life – with or without slimming the size of the military sector" (Stearn 2013: 2-3).

Measuring the material dimension of militarization has a long tradition, so that historically it has often been used as sole indicator for the concept of militarization. Wolpin (1983: 130), for instance, defines militarization as "the allocation of increasing resources to armed forces". Accordingly, military spending has long been regarded as the "standard measure" for militarization (Gifford 2006: 473). Some scholars tried to disentangle different aspects of (material) militarization by differentiating between an "increase in armaments, advance in the destructive capacity of weapons, growing numbers of people under arms, and dramatic increases in military expenditure" (Eiden and Thee 1980: 9). In a narrow understanding, increased resource allocation and the process of material militarization is equated with increased military capacity (Lind 2004). Contrary, we understand material militarization as a tool to assess the policy priorities of political elites (MacDonald 1997). In the M^3 Dataset the material dimension is covered by six indicators which capture the allocation of resources in the form of personnel, financial resources, and heavy weapons. The six indicators are all derived from the Global Militarization Index (GMI), a measurement tool developed by the Bonn International Centre for Conflict Studies (BICC; https://gmi.bicc.de). However, focusing exclusively on the material dimension neglects the "social and

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[1] The definition of "military" used in this dataset refers to state organizations or groups of state organizations that (1) are permanently established by constitutional law; (2) claim the monopoly over certain weapons of war; and (3) whose primary purpose is the application of coercive force to eliminate or deter any threat to the existence of the nation-state (Edmonds 1988, 26).

political impact of military preparedness" (Gifford 2006: 473). The M³-Dataset also covers both other dimensions.

Accordingly, we define political militarization as an increase in the level of influence taken by the military on political decision-making (Eibl et al. 2019). Political militarization takes different forms. Finer (1962) differentiates between direct and indirect forms of political influence asserted by the military. While direct influence is given, when the chief executive is a non-elected, active-duty officer, indirect influence is exercised when the executive is formally occupied by civilians, but the military wields political power from the background. With political regimes in Sub-Sahara Africa Basedau and Elischer (2013) similarly differentiate between "ruling militaries" and "supporting militaries". Direct military influence and ruling militaries both describe the end of the continuum of political militarization – namely when civilian control has ended, and the regime transformed into a military regime. Military coups and the regime type therefore could serve as indicators for political militarization. However, such a "coup-ism" and an exclusive focus on extreme forms neglect many preceding steps of military influence on political decision making (Croissant et al. 2010). We capture this dimension through seven indicators, measuring the extent to which military officers shaped regime-building, are represented in key positions of the government, can exercise a political veto, engage in political repression, and enjoy extra-legal protection ("impunity"). These seven indicators are derived from the most recent version of the Political Roles of the Military Index (PRM-I), introduced by Croissant, Eschenauer and Kamerling (2016) and revised by the authors of this codebook.

Finally, militarization is intimately connected not only to material factors like the increase in the size of armies and to the political influence of the military, but also to broader societal contexts.

A military can have an increasing societal influence and thus drive societal militarization in different ways. First, through increased recruitment and absorption of larger segments of civil society. Second, by expanding into other social institutions (Bowman 2002: 19) such as the civil service, and third, by taking on more and more (social) functions and broadening its mandate (Kühn and Levy 2020). We capture this dimension via 17 indicators which cover recruitment practices, the military's role in policing, and the economic activities of the military.

Figure I: The dimensions of Militarization
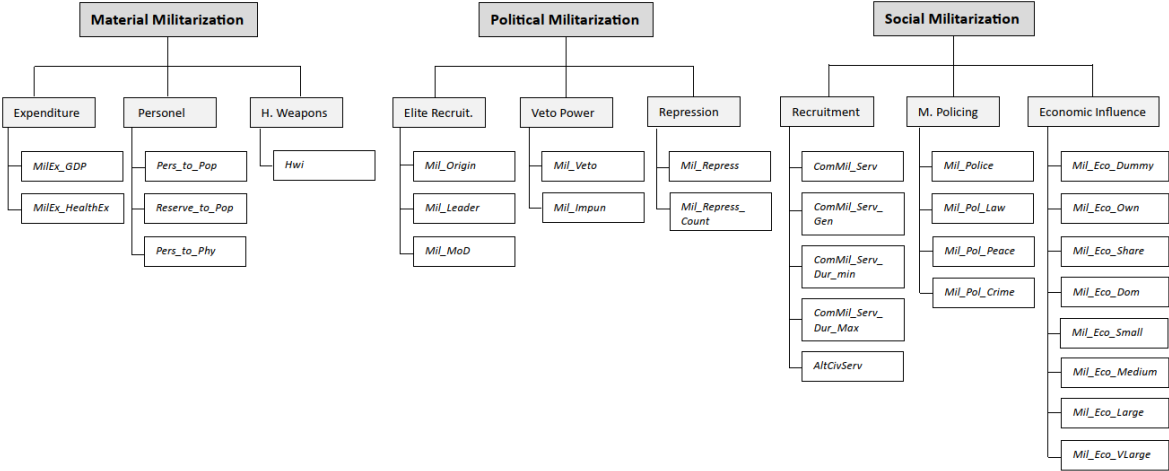
Our concept of militarization focusses on a state's armed forces as a core institution of organized violence. However, empirical realities on the ground are often a bit murky. Many states deploy different forms of paramilitary groups – understood as "uniformed group, usually armed, neither purely military nor police-like in format or function but often possessing significant characteristics of both" (Scobell and Hammit 1998: 220-221) – which blur the boundaries between the military and the civilian sphere of a society. We include such paramilitary groups – like the US-American National or Coast Guard –

only in the material dimension, since they receive resources from the respective states and can "have a wartime role as an adjunct to the regular armed forces" (Scobell and Hammit 1998: 221). In the other dimensions we apply a narrow understanding of the military.

Consequentially, we don't consider aspects like the use of military equipment and adoption military tactics by the police force (Macías & Zarkin 2021; Bieler 2016; De Bruin 2022) or the proliferation of private military companies (Hutchful & Aning 2001; Kinsey 2006) in our concept of militarization. We include, however, paramilitary units in the estimation of the material dimension because in many countries the regular military alone doesn't reflect the overall size of the armed forces.

Inclusion criteria and some remarks on dissolutions, unifications, and separations of states

Our data covers the post-cold-war period since the phenomenon of contemporary militarization might differ qualitatively and quantitatively from its cold-war equivalent. Our understanding of militarization is a narrow and state-centric one. We thus only include states recognized by the United Nations in our dataset. This means that unrecognized territories such as Kosovo, Taiwan or the Palestinian territories are not included in our data set. Further, we only include such countries that have at least one million inhabitants and a military.[2] Some countries crossed the threshold of one million inhabitants later than 1990, and some countries disbanded their military during the study period. These countries were included in the dataset from or up to the respective years in which they reached the population threshold or dropped when they discontinued their military.

During the period of observation some states, like Macedonia changed names, federations like the former the former Soviet Union or Yugoslavia ceased to exist. Other states, like Sudan, witnessed secessions and again others, like Yemen, reunifications. Such discontinuities are challenging for datasets and can lead to confusions. Here we thus explain how we dealt with them:

Soviet Union: The Soviet Union was officially dissolved with the so-called Belavezha Accords on 8th of December 1991. We thus included the Soviet Union in our dataset; however only for 1990 and 1991. We treat the Russian Federation as official successor state, and all other former member states of the Union as independent states form thereon. Most of these, like Azerbaijan, are in our dataset from 1992 onwards. However, in some cases, like Lithuania, the process of building independent armed forces took some time. Consequently, some of these states de facto had no independent military at the beginning of 1992 and thus are included in our dataset only from 1993 onwards.

Yugoslavia: Like the Soviet Union the former Yugoslavia ceased to exist. In 1992 the former member states Slovenia, Croatia, and Bosnia and Herzegovina declared independence while Serbia and Montenegro, remained a union. Both states split up in 2006. For the sake of simplicity, we use the name Republic of Serbia – Serbia's actual name - for the whole period from 1993 up to 2020. The independent state of Montenegro is not included in the dataset, since it is a small state with less than a million inhabitants. Finally, Kosovo, also formerly part of Serbia and Montenegro, is not included in the dataset since it lacks formal recognition.

Czechoslovakia: Czechoslovakia is the last union dissolving during the times covered by our dataset. On November 25, 1992, the Federal Assembly of the Czech and Slovak Federal Republic resolved the dissolution of the federation on December 31, 1992, and the formation of the two new and independent states. Consequentially, our dataset contains the Czech Republic and Slovakia from 1993 onwards.

Yemen: On May 22, 1990, the unification of the former Yemeni Arab Republic (North Yemen) and People's Democratic Republic of Yemen (South Yemen) officially took place. With the unification both predecessor states ceased to exist. From 1991 onwards, we thus list Yemen as officially unified country in our dataset. However, the unification was not uncontested. In 1994 civil war broke out and the

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[2] Excluding small states is common practice in attempts to create large-n data inventories. Small states typically do not possess a standing army and if they have one (e.g., Fiji), due to their lack of larger resources, are less relevant for the study of processes of militarization.

Democratic Republic, located in the southern part of Yemen, temporarily seceded until it was forcefully reintegrated. Further, the establishment of a new unified army took several years. We thus treat Yemen – from 1991 onwards – as formally unified but coded some data, like recruitment practices, as NA until 1995.

Renamings: Several countries were renamed during the last 30 years. We thus decided to include two version of the country name: the English standard version and the official name used by the UN. The English standard name thereby typically reflects the name before the name change (e.g. Turkey, Macedonia or Ivory coast) and the UN Name after it (e.g. Türkiye, North Macedonia and Côte d'Ivoire). In both cases we use one name consistently which means that the changes are applied backwards (e.g. the UN Name for Türkiye will always be Türkiye even if the country only changed its name recently).

3. Basic Variables

Variable	Description
Countryname_standard	Country Name in standard English
Countryname_UN	Country Name according to UN
countryISO3C	ISO3C Country Code
Region_WB	Region according to World Bank
Continent	Continent
COWc	Correlates of War's character country code
COWn	Correlates of War's numerical country code
Year	Respective year
Pop_total	Total Population of the country in the respective year according to World Bank

4. Material Militarization – the Resource Dimension

Our understanding of material militarization is resource-based. Drawing on the GMI, we measure the level of material militarization by the allocation of resources by the state to the military in relation with other areas of society. The GMI consists of three sub-indices that assess different aspects of militarization, namely expenditures, personnel, and heavy weapons. These three sub-indices are made up of six indicators in total. The raw data on these six indicators are included in the M^3-Dataset to assess the dimension of material militarization. More information on the handling of missing data, data interpolation and the methodology of the GMI-Score can be found in the respective Codebook.

4.1. Military Expenditure/Military Burden

The military expenditure can be regarded as the standard measure of militarization (Gifford 2006: 473). The financial resources made available by a government influence on the one hand the ordnance, capabilities, and size of a country's armed forces and represent a military burden on the other. We regard the military expenditure not so much as a measure of military capabilities, but as a tool to assess the policy priorities of political elites (MacDonald 1997). We provide two relational measurements for it, the military expenditure as the share of the gross domestic product and measured against domestic health spending. Military expenditure thereby goes beyond the defense budget of a country. It also includes other expenditures, such as pensions for military personnel or spending on military research and development.

4.1.1. Military Expenditure as Percentages of GDP (*milex_gdp*)

The variable *milex_gdp* measures the military expenditure of a state and its society against their economic performance (measured as the gross domestic product, GDP).

Coding Options

X	Military Expenditure/GDP
NA	not available

Resources: Military Expenditure Database of the Stockholm Peace Research Institute SIPRI

Remark: We also provide the variable in a normalized version (minmax normalization). This is labeled *milex_gdp_norm*.

4.1.2. Military Expenditures in Relation to Health Spending (*milex_healthex*)

As another tool to assess the policy priorities of political elites we provide the variable m*ilex_healthex* which measures the military expenditure of a state and its society against its health expenditure.

Coding Options

X	Military Expenditure/Health Expenditure
NA	not available

Resources: Military Expenditure Database of the Stockholm Peace Research Institute SIPRI, Global Health Observatory Data Repository of the World Health Organization (WHO).

Remark: We also provide the variable in a normalized version (minmax normalization). This is labeled *milex_healthex_norm*.

4.2.   Military Personnel

The size of armies and the number of armed personnel are classic indicators of militarization, as they are supposed to reflect a country's military capacity (Eiden and Thee, 1980). Although military personnel are not a "material" factor, personnel are a resource allocated to the military by the state. These "resources" cannot be put to societal use at the same time elsewhere. We provide three measures: (para)military personnel in relation to population, number of military reservists in relation to population, number of military and paramilitary personnel in relation to physicians.

4.2.1.   (Para)Military Personnel in Relation to Population (*pers_to_pop*)

The variable p*ers_to_pop* reflects what MacDonald (1997: 7) calls the Spartan Index. It measures the "extent to which military forces make up a significant proportion of the national population". The index includes both active military and paramilitary personnel, such as members of the Presidential Guard or the National Guard, to reflect the full strength of the armed forces. The latter received military training, generally possess (light) military weapons, are barracked, and perform regular full-time service. This distinguishes them from police forces, who have neither military training nor equipment, and military reserve forces, who do not serve full-time.

Coding Options

X	Active (para)military personnel per 1.000 inhabitants
NA	not available

Resources: Data on (para)military personnel stems from the Military Balance of the International Institute (IISS). Data on the population is taken from the World Bank.

Remark: We also provide the variable in a normalized version (minmax normalization). This is labeled *pers_to_pop_norm.*

4.2.2.   Number of Military Reservists in Relation to Population (*reserve_to_pop*)

For a comprehensive presentation of the available personnel, we also provide a second indicator, in addition to the *pers_to_pop* indicator, which measures the share of the military reserve forces against the total population. The indicator *reserve_to_pop* is particularly relevant for some countries, such as Switzerland, which heavily rely on militias and consequentially have a comparatively small standing army but a larger number of available reserves within society.

Coding Options

X	Reservists per 1.000 inhabitants
NA	not available

Resources: Data on (para)military personnel stems from the Military Balance of the International Institute (IISS). Data on the population is taken from the World Bank.

Remark: We also provide the variable in a normalized version (minmax normalization). This is labeled *reserve_to_pop_norm.*

4.2.3. Number of (Para)Military Personnel in Relation to Physicians (*pers_to_phy*)

The variable *pers_to_phy* put the total number of active military and paramilitary personnel in relation to the total number of physicians in a country to express the ratio of military to non-military expertise in a society.

Coding Options

X	Active (para)military personnel / number of physicians in the country
NA	not available

Resources: Military Balance of the International Institute for Strategic Studies (IISS). The number of physicians of a country is taken from World Health Organization's (WHO) Global Health Observatory data repository.

Remark: We also provide the variable in a normalized version (minmax normalization). This is labeled *pers_to_phy_norm*.

4.3. Heavy Weapons Index (*hwi*)

Militarization is often associated with an increase in military capacity (Lind, 2004) or an increase in armaments (Eide & Thee, 1980). The Heavy Weapons Index (*hwi*) indicates the number of heavy weapons in the arsenals of the armed forces in relation to the overall population.

Our definition of heavy weapons follows the classification of the United Nations Register (UNROCA) of Conventional Arms which defines heavy weapons as any military equipment that fits into one of four categories: armored vehicles (armored personnel carriers, light tanks, main battle tanks), artillery (multiple rocket launchers, self-propelled artillery systems, pulled artillery systems) of 100mm caliber and above, combat-capable or armed aircraft (combat helicopters, fixed-wing aircraft) and large vessels of war (submarines, principal surface combatants larger than corvettes). We only deviate from the UNROCA classification in three points: First, we include artillery systems from a caliber of 75 mm upwards. Second, we also include unmanned combat aerial vehicle (UCAV) and so-called loitering munitions. Third, although not a weapon system, we count in military satellites since these are crucial for modern communication, navigation, reconnaissance and necessary for the efficient use of many of the aforementioned systems.

Coding Options

X	Heavy weapons/10.000 inhabitants
NA	not available

Resources: The number of heavy weapons stems for the Military Balance of the International Institute for Strategic Studies (IISS). Data on the population sized is taken from the World Bank.

Remark: We also provide the variable in a normalized version (minmax normalization). This is labeled *hwi_norm*.

5. Political Militarization – the politics dimension

The M^3-Dataset also builds on the Political Roles of the Military (PRM) Dataset (Croissant, Eschenauer and Kamerling 2016). It systematically captures the militarization of politics in a given country with regard to elite recruitment (potential military regime origin, regime leader and minister of defense), exercise of power (military veto powers and military impunity) and regime protection (military repression) in democracies and autocracies. Based on the initial conceptions of Basedau and Elischer (2013) and the PRM v.2.0 (Croissant, Eschenauer and Kamerling 2016), these seven indicators capture three aspects of political militarization: The first aspect, elite recruitment, focusses on the elite-level and captures how much the military is entrenched within the political systems. It is measured through the indicators military regime origin, regime leader and minister of defense. The second, veto power and prerogatives, focusses on the actual power asserted by the military in the political process. It reflects a militaries political and legal privileges. The last aspect, repression, captures the militaries involvement in regime protection by providing information on repression carried out by the military. Together, the distinct indicators of political militarization enable scholars to understand the political importance of the military within a political system, to compare the amount of political military influence between different countries and to analyze the potential consequences of military involvement in polity and politics. More information on the PRM v.2.0 can be found in the respective Codebook.

5.1. Elite Recruitment

As outlined by Feaver (1996: 149) the problem of the reconciliation of a "military strong enough to do anything the civilians ask them to with a military subordinate enough to do only what civilians authorize them to do" is the key-problem in civil-military relations. Civilian control is usually asserted by institutions and actors such as legislatures, civilian defense bureaucracies, and head of states and the executive. Civilian control requires the creation of institutions that define the distribution of decision-making and oversight authority such that it favors political leaders (Kuehn and Croissant 2023: 24). Our three indicators, *mil_origin, mil_leader*, and *mil_mod*, measure the extent of this control and the extent to which regime elites are recruited from the ranks of the military.

5.1.1. Military Regime Origin (*mil_origin*)

Yearly measure, if a regime originates from a military background. A regime is identified to be of military origin, if the Head of Government or the head of state came into power either through the threat of or the application of force (e.g. a coup or a rebellion) or if the Head of Government or the Head of State has been directly appointed by the military. There are also situations, where both mentioned conditions can be fulfilled. If at least one of these conditions applies to a specific country-year, the variable is coded as 1, in all other cases the variable is coded as 0.

Coding Options

0	no militiary origin
1	military origin
NA	not available

Resources: Varieties of Democracy (Variables: HOG appointment in practice (v2expathhg), HOS appointment in practice (v2expathhs)), US State Department Human Rights Reports, Amnesty International Reports

5.1.2. Military Regime Leader (*mil_leader*)

Yearly measure if regime leader is a member of the armed forces or is a rebel leader. The variable is coded as 1 if the chief executive is an active military officer or a rebel leader, otherwise it is coded as 0. In parliamentary systems, the prime minister denotes the regime leader. In presidential systems the president is counted as the regime leader. This means that if within a parliamentary system there also exists a president or monarch the prime minister is still classified as the regime leader. The same holds for presidential systems in which a monarch exists, here the president is still classified as the regime leader. In semi-presidential systems, the identification of the chief executive is based on the system-classification of the Database of Political Institutions.

Coding Options

0	no active member of the military/ no rebel leader
1	Active member of the military/ rebel leader
NA	not available

Resources: Database of Political Institutions 2020, US State Department Human Rights Reports, Amnesty International Reports

5.1.3. Military Minister of Defense (*mil_mod*)

Yearly measure, if the minister of defense has significant ties to the armed forces. The variable is coded as 1, if the defense minister is an active military officer, otherwise the variable is coded as 0. If the position is not occupied or doesn't exist the variable is set to missing (NA).

Coding Options

0	no active member of the military/ no minister of defense
1	minister of defense is active member of the military
NA	not available

Resources: Database of Political Institutions 2020, US State Department Human Rights Reports, Amnesty International Reports

5.2. Veto Power and Prerogatives

In addition, for civilian control to be present, civilians must be capable of disciplining the military through nonmilitary means. We can only meaningfully speak of civilian control of the military if political leaders can sanction military officers' actions or behavior that transcends the dividing line between civilian and military spheres of authority and responsibility (North et al. 2009: 170). The focus of veto power and prerogatives captures this aspect (Kuehn and Croissant 2023: 24).

5.2.1. Military Veto Power (*mil_veto*)

Yearly measure if the military possesses significant political veto powers. Eventually the head of state or the head of government of a country seeks approval by other institutions of the state prior to important decisions. If the chief executive customarily seeks approval by the military before making relevant decisions, the military is considered to possess and exert significant political powers. Based on the data of the Varieties of Democracy Dataset (Coppedge et al. 2022), the military is thus considered to be a political veto player, if the chief executive of a country relies on its approval of important decisions. In regard to the varying distributions of power among different regimes, the data is coded according to the

reliance of the of the Head of State or the Head if Government on the military. In both cases, the variable is coded as 1 if the military exerts significant political power on the decisions of the person in question, in all other cases it is coded as 0. This means that *mil_veto* has received the value 1 if the value of the VDEM variables "HOS control over" (v2exctlhs) or "HOG control over" (v2exctlhg) >= 0.5 and the value 0 if v2exctlhs or v2exctlhg < 0.5. Details on the operationalization of the variables v2exctlhs and v2exctlhg can be found in the respective VDEM Codebook."

Coding Options

0	military not identified as political veto player
1	military identified as political veto player
NA	not available

Resources: Varieties of Democracy (Variables: HOS control over (v2exctlhs), HOG control over (v2exctlhg)

5.2.2.   Military Impunity (*mil_impun*)

Yearly measure of military impunity. The military enjoys impunity, if members of the armed forces engage in illegal activities (violation of human rights and physical integrity rights, corruption or other illicit economic activities and severe cases of insubordination e.g. coups) and there are no reports on prosecution and conviction, or prosecution and conviction are politically motivated, or de facto prosecution and conviction must be considered highly disproportional to the number and severity of crimes committed. In addition, systems of 'Military Overreach', as denoted in the Military Legal Subordination Dataset (Kyle and Reiter 2021) are per se an indicator for military impunity. Indiscriminate amnesties do also clearly indicate impunity.

Coding Options

0	no military impunity
1	military impunity
NA	not available

Resources: Military Legal Subordination Dataset, US State Department Human Rights Reports, Amnesty International Reports; Human Rights Watch Reports, Freedom House Reports

5.3.   Repression

As a key institution of organized violence, the military can play a decisive role in keeping a political regime in power – even against the will of large majorities of the population. In countries and political regimes with a prominent or even indispensable role of military organizations in political repression and domestic coercion, soldiers might acquire a politically pivotal role and, in turn, greater autonomy and resources.

With the indicators *mil_repress* and *mil_repress_count*, we therefore provide two indicators to assess whether and to what extent the military uses lethal force against civilians to defend the regime.

5.3.1.   Military Repression (*mil_repress*)

Yearly measure of prevalence of military repression. The measure of military repression is based on the definition of repression by Davenport (2007: 2), who defines military repression as the "actual […] use

of physical sanctions against an individual […], within the territorial jurisdiction of the state, for the purpose of imposing a cost on the target […]". Focusing exclusively on the military, this dataset captures military repression as the yearly measure of internal military deployment against unarmed civilians which results in the death of at least one unarmed noncombatant – including all de facto internal employment of the military causing civilian casualties. The variable is coded as 1 if the military of a country has used physical sanctions against unarmed individuals, which caused the death of at least one noncombatant, while being deployed within its countries' territorial jurisdiction, in all other cases the variable is coded as 0.

Coding Options

0	no military repression
1	military repression
NA	not available

Resources: Political Instability Task Force: Worldwide Atrocities Dataset, US State Department Human Rights Reports, Amnesty International Reports

5.3.2. Military Repression Count (*mil_repress_count*)

Yearly count of events of military repression. This variable counts the absolute number of events of military repression that took place within a specific country-year. It is based on the definition of repression by Davenport (2007: 2), who defines military repression as the "actual […] use of physical sanctions against an individual […], within the territorial jurisdiction of the state, for the purpose of imposing a cost on the target […]". Focusing exclusively on the military, this variable captures the amount of military repression as the yearly measure of the absolute number of events related to internal military deployment against unarmed civilians which resulted in the death of at least one unarmed noncombatant – including all de facto internal employment of the military causing civilian casualties. It is a discrete Variable, displaying the absolute number of events, where the military of a country has used physical sanctions against unarmed individuals, which caused the death of at least one noncombatant, while being deployed within its countries' territorial jurisdiction.

Coding Options

X	# of events of military repression
NA	not available

Resources: Political Instability Task Force: Worldwide Atrocities Dataset, US State Department Human Rights Reports, Amnesty International Reports

6. Social Militarization – the societal dimension

The M³-Dataset also comprises variables of the interaction between the military as a state institution and the broader (civil) society and how much military and civilian spheres are separated or intertwined. The dimension captures military-society relations in three different areas:

First, the military recruitment system, which can be organized in different ways: all-volunteer service, some form of conscription or a mix of both. The recruitment system has implications for military-society relations, as all-volunteer armies tend to be smaller, and the lack of conscription means that fewer citizens encounter the institution of the military, its norms and values, organization and procedures. The five indicators provide information on the type of recruitment and conscription, its duration and the availability of alternative forms of service.

The second area is policing. In order to define policing, we highlight the differences between the classical roles of the military and the police. Probably the most important difference lies in the principles behind the application of force: While the police is committed to the principle of minimum use of force, a military's key feature is the usage of a maximum of coercive and violent power (Campbell & Campbell 2010: 331). Armed forces are further primarily responsible for the protection of the state and its citizen against external enemies, while the police is responsible for the provision of internal security and the preservation of public order (Easton 2017: 1117). Military policing begins, when the boundaries between the military and the police start to blur. In such cases, the military adopts police-related operational tasks, is deployed within the boundaries of its own country or follows a doctrine of minimum application of force. Our four indicators provide data reflecting the militaries involvement in different forms of policing. For military-society relations, this plays a central role, since the presence and the scope of military policing significantly determines the level of direct interactions between civilians and soldiers.

The third area concerns the sphere of the economy. The eight indicators contain information on whether and to what extent the military acts as an economic actor. If the military acts as an economic actor, this means on the one hand that citizens are confronted with the military as an employer and on the other hand that the military's dependence on the budget allocated to it by political decision-makers may decrease.

6.1. Recruitment

We provide five different indicators, all of which address the question of how the military's recruiting system is organized. Is it based on a compulsory military service? If yes, who has to serve for which time? Further, we also assess if citizens are given the option to refuse military service and fulfil an alternative civilian service.

6.1.1. Compulsory Military Service (*commilserv*)

Compulsory military service obliges a certain group of citizens – usually all able-bodied men of a certain age group – to serve in the national armed forces for a certain period of time. Typically, states with mandatory service have a voluntary force that consists of professional soldiers who form the officer corps, which complement the conscripts. Some states do not enforce the compulsory military service. An example of this is Myanmar, which has a constitutionally mandated conscription that is not enforced, though the Tatmadaw is also known to press recruits into service, if need is. In contrast, some states have never adopted compulsory military service and have relied on voluntary service instead. The variable *commilserv* captures the legal practice whether conscription is currently de facto enforced -

irrespective of the de jure question of whether it is enshrined in the constitution. The indicator does not capture whether minorities, such as Orthodox Jews in the case of Israel, are exempt from compulsory military service.

Coding Options

0	no compulsory militiary service
1	compulsory military service
NA	not available

Resources: As primary sources**,** we used the Military Balance by IISS, the Economic Freedom of the World Dataset, War Resisters International's World Survey of conscription and conscientious objection to military service. To complement this data, we used secondary sources such as reports, books, articles, and expert's opinions.

6.1.2. Compulsory military service for all genders (*commilserv_gen*)

Historically, most Compulsory Military Services obliged male citizens exclusively to serve in the armed forces. However, there are states in which conscription applies equally to all genders, the most famous examples being Israel and Norway. Since we are not aware of any state or military that differentiates beyond the two genders, the indicator *commilserv_gen* surveys whether men and women are equally subjected to the compulsory military service.

Coding Options

0	compulsory military service for males only
1	compulsory military service for all genders
-888	not applicable since no compulsory service
NA	not available

Resources: As primary sources**,** we used the Military Balance by IISS, the Economic Freedom of the World Dataset, War Resisters International's World Survey of conscription and conscientious objection to military service. To complement this data, we used secondary sources such as reports, books, articles and expert's opinions. In this case, the experts were recruited form the embassy staff of the respective countries in Germany, or the staff of the German embassy in the respective countries.

6.1.3. Minimum Duration of the Compulsory Military Service (*commilserv_dur_min*)

The duration of compulsory service may vary depending on the branch of the armed forces (e. g. air force, navy and army) in which it is fulfilled and for different groups. For example, general military service in Turkey currently lasts 12 months, but university graduates are only required to serve six months. *commilserv_dur_min* indicates the minimum duration of military service in months, in the case of Turkey 6 months. If no compulsory service exists, *commilserv_dur_min* is coded as "0".

Coding Options

X	Min. compulsory military service in months
0	If no compulsory military service
NA	not available

Resources: As primary sources**,** we used the Military Balance by IISS, the Economic Freedom of the World Dataset, War Resisters International's World Survey of conscription and conscientious

[objection to military service](#). To complement this data, we used secondary sources such as reports, books, articles, and expert's opinions.

6.1.4. Maximum Duration of the Compulsory Military Service (*commilserv_dur_max*)

commilserv_dur_max indicates the maximum duration of military service in months. Using our case of Turkey again, *commilserv_dur_max* would be coded with 12 months. If no compulsory service exists, *commilserv_dur_max* is coded as "0". If there is no maximum value specified *commilserv_dur_max* coded in the same manner as *commilserv_dur_min.*

Coding Options

X	Max. compulsory military service in months
0	If no compulsory military service
	if no maximum value is specified but a minimum value given, then commilserv_dur_max = commilserv_dur_min
NA	not available

Resources: As primary sources**,** we used the Military Balance by IISS, the [Economic Freedom of the World Dataset](#), War Resisters International's World [Survey of conscription and conscientious objection to military service](#). To complement this data, we used secondary sources such as reports, books, articles and expert's opinions.

6.1.5. Alternative Civil Service (a*ltcivserv*)

Some countries offer their citizens the option of alternative civilian service instead of military service. Such services were, among others, common in Germany before its conscription was abolished in 2011. Such alternative services offer citizens the opportunity to refuse military service – for reasons of conscience, for example – without violating applicable laws and thus having to fear punishment. The existence of alternative services therefore usually means little interference with citizens' freedoms.

Coding Options

0	no Alternative Service
1	Alternative Service
-888	not applicable since no compulsory service
NA	not available

Resources: As primary sources**,** we used the Military Balance by IISS, the [Economic Freedom of the World Dataset](#), War Resisters International's World [Survey of conscription and conscientious objection to military service](#). To complement this data, we used secondary sources such as reports, books, articles and expert's opinions.

6.2. Military Policing

As noted by MacDonald (1997), a military's key purpose is national defense. Besides this key role, militaries can also perform a variety of other roles with the most common one being the military's role in assisting the police forces. However, speaking of just one general mode of military assistance underestimates the complexity of military involvement in police tasks. We thus further distinguish between different levels of such military assistance by considering its type and scope. To distinguish between different operational areas of police work, we draw back on the concept of policing and summarize the involvement of the military in police tasks through the term of 'military policing'.

Policing can be understood as the activities the police carries out in order to successfully perform its assigned tasks. It thereby consists of five distinct dimensions: law enforcement, peace preservation, crime prevention, civil rights protection and service provision (Hess 2009: 116). The dimension 'law enforcement' thereby captures the apprehension of law offenders and assisting in their prosecution (e.g. prosecution of crimes, drug seizures, evidence gathering, interrogation), 'peace preservation' describes the arrest of individuals for peace disturbances (e.g. supervision of demonstrations, searches and arrests, patrols), 'crime prevention' contains the elimination of potentially dangerous situations (e.g. prevention of terrorism), 'civil rights protection' limits the scope of policing to constitutional principles (e.g. legal framework) and 'service provision' describes additional communal services (e.g. disaster relief, medical help). We define military policing as the adoption of differing amounts of policing tasks by the military. In contrast to Hess, however, we distinguish only between the first three tasks of law enforcement, peacekeeping, and crime prevention, because we plan to assess the latter as separate indicators in future. The first will be covered by an indicator on the legal basis for military policing, the second by an indicator on the developmental role of the military.

6.2.1. Practice of using the military for policing (*mil_police*)

The variable *mil_police* captures whether the military is generally performing policing activities or not.

Coding Options

0	Military is not used for policing tasks
1	Military is used for policing tasks
NA	not available

Resources: Data for the policing indicator was collected via an expert survey.

6.2.2. Military Law Enforcement (*mil_pol_law*)

Via the variable *mil_pol_law* we assess whether the military is engaged in 'law enforcement' e.g. if military personnel takes part in the apprehension of law offenders and is assisting in their prosecution (e.g. prosecution of crimes, drug seizures, evidence gathering, interrogation).

Coding Options

0	Military is not engaged in law enforcement
1	Military is engaged in law enforcement
NA	not available

Resources: Data for the policing indicator was collected via an expert survey.[3]

Remark: This variable is based on expert-coded data. To assess the quality of the data we provide two additional variables. First, *p_a_milpol_law* assesses the inter-coder reliability. Since the absolute number of responses, we received varied between cases and over time, we assessed the inter-coder reliability by calculating the percentage agreement between experts for each country-year of the dataset. Second, we asked the experts to rate their confidence level of their assessment of the respective sub-dimensions of military policing on a scale form 1-10 (10 max. confidence). This level of confidence is captured by the variables *max_conf_milpol_law*. To obtain a reliable measure, all values of the variables on the military policing component (*mil_police; milpol_law; mipol_peace;* and *milpol_crime*) represent the expert assessment with the highest confidence ratio. As shown in an analysis of V-Dem variables by Marquardt et al. (2019), an assessment of confidence in the quality of their coding made by the coding experts themselves correlates positively with the reliability of the resulting data.

6.2.3.   Military Peace Preservation (*mil_pol_peace*)

The variable *mil_pol_peace* captures if the military is engaged in 'peace preservation' e.g. the arrest of individuals for peace disturbances (e.g. supervision of demonstrations, searches and arrests, patrols).

Coding Options

0	Military is not engaged in law enforcement
1	Military is engaged in law enforcement
NA	not available

Resources: Data for the policing indicator was collected via an expert survey.

Remark: This variable is based on expert-coded data. To assess the quality of the data we provide two additional variables. First, *p_a_milpol_peace* assesses the inter-coder reliability. Since the absolute number of responses, we received varied between cases and over time, we assessed the inter-coder reliability by calculating the percentage agreement between experts for each country-year of the dataset. Second, we asked the experts to rate their confidence level of their assessment of the respective sub-dimensions of military policing on a scale form 1-10 (10 max. confidence). This level of confidence is captured by the variables *max_conf_milpol_peace*. To obtain a reliable measure, all values of the variables on the military policing component (*mil_police; milpol_law; mipol_peace;* and *milpol_crime*) represent the expert assessment with the highest confidence ratio. As shown in an analysis of V-Dem variables by Marquardt et al. (2019), an assessment of confidence in the quality of their coding made by the coding experts themselves correlates positively with the reliability of the resulting data.

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[3] Between March and April 2023, 509 country experts on the extent of military policing were surveyed. These experts had special country or regional expertise (either coming from the country or region or having been professionally involved with the country for a longer period) paired with expertise in areas related to the military and law enforcement. The experts were usually identified through publications in areas such as security policy, civil-military relations, security sector reform, policing studies and human rights work. The majority of the experts thus has a background in research, and some are from international or civil society organisations such as the United Nations, the EU or Amnesty International.

6.2.4. Military Crime Prevention (*mil_pol_crime*)

The variable m*il_pol_crime indicates* whether the military is actively engaged in crime prevention e.g. the elimination of potentially dangerous situations like the prevention of terrorism) is capture by the variable.

Coding Options

0	Military is not engaged in law enforcement
1	Military is engaged in law enforcement
NA	not available

Resources: Data for the policing indicator was collected via an expert survey.

Remark: This variable is based on expert-coded data. To assess the quality of the data we provide two additional variables. First, *p_a_milpol_crime* assesses the inter-coder reliability. Since the absolute number of responses, we received varied between cases and over time, we assessed the inter-coder reliability by calculating the percentage agreement between experts for each country-year of the dataset. Second, we asked the experts to rate their confidence level of their assessment of the respective sub-dimensions of military policing on a scale form 1-10 (10 max. confidence). This level of confidence is captured by the variables *max_conf_milpol_crime*. To obtain a reliable measure, all values of the variables on the military policing component (*mil_police; milpol_law; mipol_peace;* and *milpol_crime*) represent the expert assessment with the highest confidence ratio. As shown in an analysis of V-Dem variables by Marquardt et al. (2019), an assessment of confidence in the quality of their coding made by the coding experts themselves correlates positively with the reliability of the resulting data.

6.3. Economic influence of the military

In some cases, the military is involved in profitable economic activities, thereby entering the economic sphere, and becoming an economic actor. Such activities can, for example, help to sustain the military and make it less dependent on government budgetary control (Brömmelhörster and Paes 2003: 1). In addition, the civilian population can be confronted with the military as an employer and economic actor that determines not only wages and working conditions but also the type of production. We only consider formal economic activities and thus exclude illegal activities such as illegal logging, arms trade or drug trafficking. Further, activities aiming at subsistence and not profit-making are also not included.

6.3.1. Economic Involvement of the Military (*mil_eco_dummy*)

Dummy variable indicating military involvement into the economy of a country either through owning, controlling, or operating any kind of private or state-owned enterprise for the sake of generating profits. There is no minimum on the extent of the profits for an activity to be considered military involvement in the economy.

Coding Options

0	Military is not involved in the economy
1	Military is involved in in the economy
NA	not available

Resources: Original data on economic activities of the military stems from Izadi (2022).

6.3.2.   Proportion of enterprises owned by the military (m*il_eco_own*)

The variable *mil_eco_own* indicates the number of economic entities per 100.000 inhabitants completely owned by the military. Complete ownership is given, when the military owns 100% of an enterprise and has discretion over the use of the profits.

Coding Options

X	number of enterprises completely owned by the military per 100.000 inhabitants
NA	not available

Resources: Original data on economic activities of the military stems from Izadi (2022). Data on population size is taken from the World Bank.

Remark: The standardized version of the variable is provided under the name *mil_eco_own_std*.

6.3.3.   Proportion of enterprises partially owned by the military (*mil_eco_share*)

The variable *mil_eco_share* measures the number of economic entities partially owned by the military per 100.000 inhabitants. Partial ownership is given when the military holds share in an economic entity and consequentially has a share in the profits.

Coding Options

X	Number of enterprises partially owned by the military per 100.000 Inhabitants
NA	not available

Resources: Original data on economic activities of the military stems from Izadi (2022). Data on population is taken from the World Bank.

Remark: The standardized version of the variable is provided under the name *mil_eco_share_std*.

6.3.4.   Proportion of state-enterprises dominated by the military (*mil_eco_dom*)

The variable *mil_eco_dom* measures the number of economic entities dominated by the military per 100.000 inhabitants. Domination is present if a state-owned enterprise is run by the military or active-duty military.

Coding Options

X	Number of state-enterprises dominated by the military per 100.000 Inhabitants
NA	not available

Resources: Original data on economic activities of the military stems from Izadi (2022). Data on population is taken from the World Bank.

Remark: The standardized version of the variable is provided under the name *mil_eco_dom_std*.

6.3.5. Proportion of small enterprises owned by the military (*mil_eco_small*)

The variable *mil_eco_small* reflects the number of small enterprises owned by the military per 100.000 inhabitants. An enterprise is categorized as small, if the enterprise operates in only one location and provides services to consumers only in that location and the enterprise does not have any subsidiaries or affiliated entities (e.g. restaurants, bars, etc.).

Coding Options

X	number of small enterprises owned by the military per 100.000 inhabitants
NA	not available

Resources: Original data on economic activities of the military stems from Izadi (2022). Data on population is taken from the World Bank.

Remark: The standardized version of the variable is provided under the name *mil_eco_small_std*.

6.3.6. Proportion of medium enterprises owned by the military (*mil_eco_medium*)

The variable *mil_eco_medium* reflects the number of medium enterprises owned by the military per 100.000 inhabitants. An enterprise is categorized as medium, if the enterprise operates in between 2 and 3 locations, has up to 3 subsidiaries or affiliated entities and provides services to consumers in more than one location but not the entire country.

Coding Options

X	number of medium enterprises owned by the military per 100.000 inhabitants
NA	not available

Resources: Original data on economic activities of the military stems from Izadi (2022). Data on population is taken from the World Bank.

Remark: The standardized version of the variable is provided under the name *mil_eco_medium_std*.

6.3.7. Proportion of large enterprises owned by the military (*mil_eco_large*)

The variable *mil_eco_large* reflects the number of large enterprises owned by the military per 100.000 inhabitants. An enterprise is categorized as large, if the enterprise operates nationally, provides services to consumers in the entire country and has between 3 to 6 subsidiaries or affiliated entities.

Coding Options

X	number of large enterprises owned by the military per 100.000 inhabitants
NA	not available

Resources: Original data on economic activities of the military stems from Izadi (2022). Data on population is taken from the World Bank.

Remark: The standardized version of the variable is provided under the name *mil_eco_large_std*.

6.3.8. Proportion of very large enterprises owned by the military (*mil_eco_vlarge*)

The variable *mil_eco_vlarge* reflects the number of very large enterprises owned by the military per 100.000 inhabitants. An enterprise is categorized as very large, if the enterprise operates globally, if it operates nationally but in a larger scale than a large entity, if the enterprise takes on national projects such as national highways, national electricity grids, national mining, if the enterprise is located within a country's national industry such as national oil industry or national gold mine or if the enterprise has more than 6 subsidiaries or affiliated entities.

Coding Options

X	number of very large enterprises owned by the military per 100.000 inhabitants
NA	not available

Resources: Original data on economic activities of the military stems from Izadi (2022). Data on population is taken from the World Bank.

Remark: The standardized version of the variable is provided under the name *mil_eco_vlarge_std*.

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