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Global Militarisation Index 2021

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GLOBAL MILITARISATION INDEX 2021

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SUMMARY

Every year, BICC's Global Militarisation Index (GMI) maps the relative weight and importance of a country's military apparatus in relation to its society as a whole. The Index is financially supported by Germany's Federal Ministry for Economic Cooperation and Development. The GMI 2021 is an anniversary edition. Its first part reflects, as usual, current developments and trends based on the latest available data. It covers 153 countries and is based on the latest available figures (in most cases, data for 2020).

The **ten countries with the highest levels of militarisation in the GMI 2021** are Israel, Oman, Azerbaijan, Kuwait, Armenia, Saudi Arabia, Brunei, Bahrain, Singapore and Russia. These countries allocate particularly high levels of resources to the military compared to other areas of society.

Besides countries primarily from conflict regions in the Middle East, three European countries can also be found here, all of which are involved in violent conflicts. A further three—Greece and Cyprus, both EU member states, and Ukraine—are among the Top 20. In the regional focus on **Europe**, one overall trend of the GMI 2021 becomes particularly clear: Despite the decrease in global GDP as a result of the COVID-19 pandemic, countries are spending more resources on the military in absolute terms and as a proportion of their economic output.

Another regional focus this time is on **Sub-Saharan Africa**. In West Africa, in particular, the security situation has deteriorated dramatically over the past few years. Therefore, it is particularly interesting to look at the dynamics of militarisation on that continent. Alongside relatively stable countries, such as Botswana, Namibia, Mauritania, Angola, Gabon and Guinea-Bissau, countries with current violent conflicts, such as Chad, South Sudan and Mali, can be found among the Top 10.

The second part of the GMI looks at the **global and regional development of militarisation over the past 20 years**. This overall view of global militarisation between 2000 and 2020 shows that, except for an interim peak in 2005, it initially decreased steadily. Our resource-based concept of militarisation explains this as follows: It is due to the increase in the world's population and that of global financial resources, which cause the **proportion of the military sector** in the GMI **to decrease from 2000 to 2018**. This, however, does not imply "true demilitarisation", as is evidenced by the absolute increase in military spending over the period under review (SIPRI, 2020). Since 2019, this trend **has reversed again**. In the past two years, rising militarisation can be observed again across the globe, mainly because the resources allocated to the military are increasing in absolute and in relative terms. INHALT

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THE METHODOLOGY OF THE GLOBAL MILITARISATION INDEX (GMI)

The Global Militarisation Index (смі) depicts the relative weight and importance of the military apparatus of one state in relation to its society as a whole. For this, the GMI records a number of indicators to represent the level of militarisation of a country:

- \ the comparison of military expenditures with its gross domestic product (GDP) and its health expenditure (as share of its GDP);
- \ the contrast between the total number of (para)military forces and the number of physicians and the overall population;
- \ the ratio of the number of heavy weapons systems available and the number of the overall population.

Weapons

	GMI indicators and weighing factors						
	Sub-index / Indicator	Factor					
5	Expenditures						
	Military expenditures as percentage of GDP	5					
	Military expenditures						
	in relation to health spending	3					
	Personnel						
	Military and paramilitary personnel						
	in relation to population. *	4					
	Military reserves in relation to population	2					
	Military and paramilitary personnel						
	in relation to physicians	2					

Heavy weapons in relation to population

The GMI is based on data from the Stockholm Peace Research Institute (SIPRI), the International Monetary Fund (IMF), the World Health Organization (wнo), the International Institute for Strategic Studies (IISS) and BICC. It shows the levels of militarisation of more than 150 states since 1990. BICC provides yearly updates. As soon as new data is available, BICC corrects the GMI values retroactively for previous years (corrected data on gmi.bicc.de). This may have the effect that current ranks may differ in comparison to previous GMI publications.

In order to increase the compatibility between different indicators and to prevent extreme values from creating distortions when normalising data, in a first step every indicator has been represented in a logarithm with the factor 10. Second, all data have been normalised using the formula x=(y-min)/ (max-min), with min and max representing, respectively, the lowest and the highest value of the logarithm. In a third step, every indicator has been weighted in accordance to a subjective factor, reflecting the relative importance attributed to it by BICC researchers (see Figure). In order to calculate the final score, the weighted indicators have been added up and then normalised one last time on a scale ranging from 0 to 1,000.

The GMI conducts a detailed analysis of specific regional or national developments. By doing so, BICC wants to contribute to the debate on militarisation and point to the often contradictory distribution of resources.

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BICC GMI in 2021

This year's Global Militarisation Index (GMI) is an anniversary edition. Its first part reflects, as usual, current developments and trends based on the latest available data. The data used relates predominantly to the year 2020. The second part, however, discusses the last two decades and uses the data sets collected for the GMI since 2000 for that.

In the first part, the GMI 2021 allows for an even more accurate assessment of dynamics in militarisation than before, as for the first time, it not only indicates the ranking in the Index but also the change in the GMI value compared to the previous year (Δ GMI). For example, previous 'climbs' in the ranking only resulted from the 'falls' of other countries, without an actual increase in the GMI value representing the militarisation of a country. The Δ GMI value, by contrast, provides clearer information as to whether a relative increase is also indicative of an absolute one.

The second part of the GMI 2021 focuses on the militarisation phenomenon and its development over two decades. Looking at the time series from 2000 to 2020 enables us to dynamically 'read' the data, which annually records the degree of militarisation, and to depict processes of (de)militarisation in different regions. This nuanced individual examination of our sub-indices on military expenditures, personnel and heavy weapons also allows us to record changes in the phenomenon itself. For example, is the (global) trend towards abolishing mass armies, which began with the end of the Cold War in Europe, continuing or is this phase more of a regional and temporary exception? How is the development regarding global spending on armed forces, and what is the situation at the regional level in this respect? Which regions are experiencing a decrease in heavy weapons and possibly a restructuring of their armed forces towards smaller, more professional (elite) units? Which are possibly experiencing the opposite, and what is the global picture? The long-term data comparison deals with these and other questions.

At the same time, the time series analysis provides three central insights into the global dynamics in militarisation of the past two decades:

First, the global trend towards demilitarisation revealed by the GMI, which can be observed from 2000 to 2018, is primarily due to the growth of the population worldwide and the (globally) available financial resources respectively. The significant increase in global economic output during this period explains the relative drop in resource allocation to the military depicted in the GMI (and particularly in its Expenditure Index). The absolute figures do not in any way reflect such a trend: According to SIPRI data, global military spending increased consistently over the period considered.

Second: This trend of relative decline seems to have reversed and turned into a renewed militarisation dynamic since 2019 due to the COVID-19 pandemic and accompanying declining economic performance. Since 2019, resources allocated to the military have been increasing not only in absolute but also in relative terms.

Third: The fact that this new dynamic of militarisation has real effects can be seen in the increase in the Heavy Weapons Index. Despite the rise in its central reference value of the total global population, the Heavy Weapons Index has been increasing again since 2017. This is all the more remarkable because armed drones, which have been frequently acquired in recent years, are not (yet) included in the calculations of the GMI. The observed militarisation is, therefore, quite evident.

The Top 10

The ten counties with the highest levels of militarisation in the GMI 2021 are Israel, Oman, Azerbaijan, Kuwait, Armenia, Saudi Arabia, Brunei, Bahrain, Singapore and Russia. These countries allocate particularly high levels of resources to the military compared to other areas of society.

Table 1 Top 10

Country	\$		€	GMI	ΔGMI	Rar	ık
Israel	3.5	1.8	3.2	436	3.6	1	(+0)
Oman	5.5	0.9	1.9	424	31.5	2	(+0)
Azerbaijan	4.1	0.6	2.1	389	54.5	3	(+9)
Kuwait	4.1	0.6	2.7	380	25.1	4	(+2)
Armenia	3.1	1.9	2.4	377	1.4	5	(-1)
Saudi Arabia	4.5	0.7	2.2	375	10.6	6	(-1)
Brunei	3.8	1.5	2.0	375	28.1	7	(+1)
Bahrein	3.3	1.3	2.7	374	-1.8	8	(-5)
Singapore	2.8	1.4	2.8	361	9.6	9	(-2)
Russia	3.2	0.9	2.8	353	10.1	10	(-1)

For some countries, there is no reliable data available to analyse the distribution of resources between the military and overall society. For some countries, particularly Syria, North Korea, Eritrea or the United Arab Emirates, it can be assumed based on earlier surveys that they have a very high level of militarisation and thus would occupy a position in the Top 10 of the GMI.

Other countries, such as the United States, have very high levels of military spending, military personnel or heavy weapons in absolute terms. If only these absolute figures were considered, the United States would be in top position by a wide margin, with military spending of US \$778 billion (data from 2020). In absolute terms, the United States would also be in the Top 10 in terms of military personnel and heavy weapons¹. However, since the GMI always puts these absolute figures in relation to other resources available for societal expenditures, such as the gross domestic product (GDP), the United States only ranks 26th in the Index 2021 (30th in the previous year). In contrast to the \ > Global Firepower Index or the \ > Asian Power Index, the GMI does not state anything about global (military) power, intervention capability and the ability to project power.

Overall, militarisation increased for most countries compared to the previous year, and 116 countries witnessed an increase in their level of militarisation, while only 37 countries were experiencing a decrease. Ten countries saw a high, 55 a significant and 51 countries saw a low level of militarisation.

Trend in (de)militarisation	Number	
compared to the previous year (ΔGMI) ²	1	
Countries with a strong trend in militarisation	10	
Countries with a significant trend	55	
in militarisation		
Countries with a low trend in militarisation	51	
Countries with a low trend in demilitarisation	24	
Countries with a significant trend	9	
in demilitarisation		
Countries with a strong trend in demilitarisation	4	

^{1 \} Unless otherwise indicated, all information on military expenditure in this publication has been taken from the SIPRI Military Expenditure Database. Data on the number of military personnel is taken from the Military Balance of the International Institute for strategic Studies (IISS).

^{2 \} We define increases of more than 25 points in the GMI ranking as high levels of militarisation; increases of more than five points as significant, and increases of up to five points as low levels of militarisation. Analogous, we define a decrease by more than 25 points as strong, a decrease by up to five points as significant, and one to five points as a low level of demilitarisation.

As in previous years, **Israel** is again the world's most heavily militarised country. With a population of just over nine million, Israel maintains—through its military service system, with 169,500 soldiers and 465,000 reservists—a comparatively very large military, on which it spent US \$21 billion in 2020. This is equivalent to 5.6 per cent of its GDP. Israel maintains a consistently high level of militarisation, which differs little from that of the previous year: According to the \triangle GMI value, at 3.6 points, it is only slightly higher than the previous year's GMI value. Oman remains unchanged in second place in the global ranking.³ With a Δ GMI value of 31.5 points, its trend in militarisation rose strongly. This is primarily due to increased military spending, which grew by 2.4 per cent measured against the GDP of 2020 despite the COVID-19 crisis. For the first time, Azerbaijan (position 3) features among the ten most heavily militarised countries, ahead of Armenia (position 5). In mid-2020, it engaged in a brief but intense war with its neighbouring country over the Nagorno-Karabakh region. The Caucasus state is recording the highest trend in militarisation (Δ GMI value of 54.5 points) of all countries. This is predominantly due to the sharp increase in military expenditures compared to the previous year. While they amounted to 3.9 per cent of GDP in 2019, in 2020, they accounted for 5.4 per cent in 2020, which corresponds to an increase of US \$319 million. Kuwait is on position four, also with a high trend in militarisation (Δ GMI value of 25.1 points) (GMI 2020 position 6). This trend is related in particular to higher military spending through the purchase of heavy weapons systems. For example, the Gulf state purchased 300 Sherpa armoured troop carriers worth euro 270 million from France. Armenia ranks fifth in

the 2021 GMI, having fallen by one position. Compared to the previous year, its trend in militarisation only increased slightly (Δ GMI value of 1.4 points). Saudi Arabia can be found on position six (GMI 2020: position 5). Resulting from a population growth of 600,000 inhabitants, both the Personnel and the Heavy Weapons Index for Saudi Arabia have fallen slightly. The higher share of military expenditure in GDP (from 7.8 to 8.4 per cent) is responsible for a clear trend in militarisation (Δ GMI value of 10.6 points). The Sultanate of Brunei also shows a strong trend in militarisation (Δ GMI value of 28.1), which is related to the ratio of military spending and GDP (from 3.1 to 4.1 per cent). Due to a slightly negative dynamic in militarisation (Δ GMI value of -1.8 points), Bahrain is in eighth position, falling by five positions compared to the previous year. Singapore and Russia rank ninth and tenth. Despite a decline in military expenditures in real terms, both countries show a marked trend in militarisation (Δ GMI value of 9.6 and 10.1 respectively). The GDP fell in both countries, but the share of military spending of GDP increased.

^{3 \} The changes in the ranking indicated here refer to data recalculated in 2021. This may differ from the data in the last printed version of the Index. This is due to the fact that data for previous years is always added in the course of the calculations and that the rankings can, therefore, also change retrospectively. The corresponding data can be found on our homepage at: \ > https://gmi.bicc.de/ranking-table

Focus on regional militarisation

Europe

Three eastern European countries (Azerbaijan, Armenia and Russia) are among the Top 10 most heavily militarised countries in the world. A further three European countries—Greece and Cyprus, both EU member states, and Ukraine—are among the Top 20 of the GMI.

The two most heavily militarised countries in Europe are Azerbaijan and Armenia. Between July and November 2020, the long-simmering conflict between the two countries over the Nagorno-Karabakh region escalated into a war that killed some 8,000 soldiers from both countries and several hundred civilians. The conflict ended with Russian mediation and the ceding of control over Nagorno-Karabakh to Azerbaijan. Both countries have rearmed significantly over the past few years and, in 2020, invested 4.9 (Armenia) and 5.4 per cent (Azerbaijan) of their respective GDP in their military. Both countries purchased weapons systems, such as anti-tank and air defence weapons, armoured vehicles and artillery systems from Russia. In addition to its traditional military cooperation with Moscow, Azerbaijan also established relationships with other arms exporting countries, first and foremost with Israel and Turkey. These supplied modern drones, guided missiles and bombs, as well as special guided weapons capable of circling over an area for a long time to then be assigned a target by remote control or to search for it independently ('loitering munitions').⁴

Table 2: The ten most militarised countries in Europe

Country	\$		3	GMI	ΔGMI	Rank	
Azerbaijan	4.1	0.6	2.1	389	54.5	3	(+9)
Armenia	3.1	1.9	2.4	377	1.4	5	(-1)
Russia	3.2	0.9	2.8	353	10.1	10	(-1)
Greece	2.3	1.2	2.7	318	0.6	14	(+0)
Cyprus	1.8	1.6	2.8	316	5.5	15	(+1)
Ukraine	3.0	0.5	1.9	305	30.3	16	(+3)
Turkey	2.7	0.7	2.0	278	2.7	22	(-4)
Belarus	1.4	1.5	2.3	269	1.4	24	(+0)
Montenegro	1.9	1.5	1.6	258	34.5	26	(+19)
Estonia	2.1	0.6	2.1	247	15.0	30	(+4)

For a while, Turkey became an active party to the conflict over Nagorno-Karabakh and supported Azerbaijan directly with attacks on Armenian positions by fighter aircraft and drones, and indirectly through Syrian fighters who entered the region with its help.

Russia's degree of militarisation remained at the same high level as in the previous year. With more than 71,000 heavy weapons systems, 900,000 soldiers, two million reservists and more than 554,000 paramilitaries, the country has by far the largest military in Europe and one of the largest armed forces across the globe. In 2020, it spent US \$62.7 billion on its armed forces, which was less than in the previous year; however, due to a lower GDP, the share of military expenditures rose from 3.8 to 4.3 per cent. This puts Russia in tenth place globally, and in third place in Europe in the GMI ranking. Over the past years, Russia has comprehensively reformed and modernised its armed forces. In particular, it modernised its land and air forces as well as its strategic nuclear forces. At the same time, Moscow pushed ahead with the transformation of its armed forces from a mass mobilisation army to a combat-ready army. As the interventions in regional conflicts, such as Syria, Libya, Crimea and eastern Ukraine show, this modernisation has enabled Russia to utilise its armed forces as a foreign policy tool and effectively project power beyond its

^{4 \} Data on arms imports in this report comes from the SIPRI \ > Arms Transfer Database

own borders. There are also ambitious plans to renew the navy in the coming years through the GPV201827 armament programme. Plans include, for instance, the purchase of a new aircraft carrier, which is to replace the only remaining carrier, the Admiral Kuznetsov, which was commissioned in 1981 and is currently being overhauled. However, in the absence of shipyard infrastructure and its enormous costs, it is questionable whether the project can indeed be realised. By contrast, plans to build two Ivan Rogov Class universal landing ships are more concrete. The keel laying ceremony of the first one at Zaliv Shipyard in Kerch took place on the occasion of President Putin's visit to Crimea in July 2020. According to the Russian government, both ships are estimated to cost US \$1.3 billion.⁵ They are to replace the Mistral Class amphibious landing ships originally ordered from France, which were not delivered due to the sanctions imposed on Russia.

Tensions between Russia and NATO have been growing in recent years. In June 2021, for instance, there was an incident in the Black Sea in which Russian forces said they fired warning shots and dropped bombs to divert a British destroyer from its course in Russian waters. Great Britain does not recognise Russian claims to the waters as it believes that these belong to Crimea and thus to Ukraine.

The large-scale exercises conducted by NATO and Russia in 2021 also had an aggravating effect on their relationship. In March, for example, the NATO's large-scale DEFENDER-Europe 21 exercise with 28,000 multinational forces from 26 nations took place. In September 2021, Russia, together with Belarus, organised the large-scale joint strategic exercise *Zapad*-2021 with approximately 200,000 soldiers and around 300 tanks to test defence capabilities of the Belarusian armed forces and Russia's Western Military District against an invasion of western European forces.

Greece and **Cyprus** follow in fourth and fifth position in the European ranking. In 2020, both showed a slight and markedly positive trend respectively in militarisation. While in Cyprus, military spending increased slightly from US \$401 to US \$418 million and from 1.6 to 1.8 per cent of the GDP, military expenditures in Greece decreased a little. However, due to its falling GDP, military spending as a proportion of GDP increased from 2.7 to 2.8 per cent in relative terms. Greece and the Republic of Cyprus have been in a constant state of conflict with Turkey and the northern part of Cyprus occupied by it since 1974. The conflict between NATO partners Greece and Turkey threatens to escalate again and again; most recently in the summer of 2020 when Ankara sent a research vessel and several warships to explore gas fields near the Greek island of Kastellorizo.

Ukraine (position 6 in Europe) further increased its military spending by some nine per cent to US \$5.9 billion. This means that the country spent 4.1 per cent of its GDP on its 209,000-strong armed forces. This strong trend in militarisation caused it to climb three positions in the GMI to 16th place worldwide, a trend that began with the start of the Donbas conflict in 2014. At that time, Ukraine was still ranked 41st in the global ranking.

In 2020, **Turkey** (position 7 in Europe) spent US \$17.7 billion on the military, significantly less than in the previous year (US \$20.6 billion). However, due to the drop in GDP, military spending as a proportion of GDP increased from 2.7 to 2.8 per cent. While one force driving this is the traditional rivalry with the neighbour Greece, Ankara has also been seeking to obtain regional hegemony based on its military for a few years now. For example, Turkey has had a military presence in Syria since 2019 and intervened on Azerbaijan's side in the conflict over Nagorno-Karabakh in 2020. Turkey has long been one of the highly militarised countries. It also shows a slightly positive trend in militarisation in 2020 and can be found on position 22 of the global ranking.

The degree of militarisation of **Belarus** (8th in Europe, 24th globally) increased a little compared to the previous year. With 45,350 active soldiers, 110,000 paramilitaries and around 289,500 reservists, the country has quite a large military considering that it has a population of only 9.5 million people. At US \$844.5 million, it spent US \$70 million more on its military than the previous year. At the time of writing, its military spending as a proportion of GDP is 1.3 per cent.

^{5 \} Janes Defence Weekly (27.4.2021): The beasts from the East: Russia's surface fleet ambitions, \ > https://customer.janes.com/Janes/Display/ FG_3954605-JDW

Montenegro, which in 2020 showed a strong trend in militarisation is new among the Top ten most heavily militarised countries in Europe. At US \$158 million, it spent markedly more on its armed forces in 2020 than in the previous year (US \$100.3 million). This corresponds to 2.1 per cent of its GDP. These additional funds were invested in more L-ATV armoured troop carriers, which the country imported from the United States.

Estonia is in tenth place in the European ranking. In 2020, the EU country invested US \$701 million, which corresponds to 2.3 of its GDP. Some of these funds were spent on the procurement of planned 18 K-9 155mm self-propelled howitzers from South Korea, of which only two were delivered in 2020.

Germany ranks 103rd in the GMI in 2021. In western Europe, Germany ranks 15th out of 18. However, despite its low ranking, Germany shows a clear trend in militarisation (Δ GMI = 5.0), which is largely due to increased military spending. In 2020, Germany invested US \$52.76 billion in its armed forces—US \$3.75 billion more than the previous year. Measured as a share of GDP, this represents a change from 1.3 to 1.4 per cent. This is still below the two-per cent target set by NATO at its summit in Wales 2014 to 2024. At the same time, however, the increased defence expenditures represent an active step towards this goal.

Sub-Saharan Africa

With at least 20 armed conflicts and 22 onging peacekeeping operations⁶, Sub-Saharan Africa is by far the region most affected by armed violence. (In comparison, in the MENA region, Asia and Oceania, there are seven armed conflicts each.) In West Africa, in particular, the security situation has deteriorated dramatically over the past few years. Therefore, it is particularly interesting to look at the dynamics of militarisation on that continent. What is striking is that it is not necessarily those countries with the highest levels of militarisation that are involved in current conflicts. The trouble spot Mali, for instance, is currently in 53rd position, and the Democratic Republic of the Congo (DRC)-constantly ravaged by civil wars—is in 140th position in the global ranking. One reason for this is that many of these countries are involved in so-called low-intensity wars. Low intensity means that these wars are fought with few troops and predominantly without heavy weapons—even though they cause high civilian casualties. Another reason is that the GMI rather focuses on the state-side of militarisation and neither records armed private actors, such as militias, nor private military and security companies. The DRC is a good example for illustrating the non-normative character of the GMI: A low position in the military ranking does not necessarily mean that the country is 'at peace'.

Table 3: The Top 10 most militarised countries in the Sub-Saharan Africa region

Country	\$		€	GMI	ΔGMI	Rank	
Congo, Rep. of	3.6	1.0	1.1	288	20.0	20	(+2)
Botswana	2.8	0.9	1.8	284	17.0	21	(+2)
Chad	2.8	1.2	0.8	248	30.9	29	(+18)
Namibia	2.6	1.0	1.2	243	3.6	32	(+3)
Mauritania	2.4	1.1	1.1	236	14.6	38	(+8)
South Sudan	2.8	0.7	0.4	224	-0.7	44	(-5)
Angola	2.1	1.0	1.2	223	-2.5	47	(-9)
Mali	3.0	0.7	0.5	214	25.6	53	(+18)
Gabon	2.2	0.6	1.3	213	7.8	54	(+2)
Guinea-Bissau	1.7	0.9	1.2	202	2.1	57	(+8)

The most militarised country in Sub-Saharan Africa in 2020 is the Republic of the Congo (Congo-Brazzaville), which shows a significant trend in militarisation compared to the previous year (Δ GMI of +20). The Central African country spent US \$298 million on its military in 2020. This is a decrease of US \$2 million compared to the previous year. However, due to the lower GDP in 2020, defence spending increased from 2.7 per cent in the previous year to 3.4 per cent. The country holds 20th position in the global ranking. The background to the high level of militarisation of the country is an armed conflict between the Ninja militia group and the state security forces supporting President Sassou Nguesso. Nguesso himself came to power in the course of the Congolese civil war (1997-1999) when he, with the help of his Cobra militia group, ousted President Lissouba who was supported by the Ninja militia group. The conflict ended in 2018 with the disarmament of the militia. Still, the military continues to be an important instrument in Nguesso's hold on power.

Botswana comes in second place, which is astonishing since the country, which borders South Africa to the north and Namibia to the west, had no armed forces at all until 1977. For a long time, it was unable to counter border incursions by various armed factions that had been involved in internal wars in Angola, Namibia and South Africa until the 1990s. Also induced by border disputes with Namibia, Botswana finally changed its political stance from the 1990s onwards and continuously increased its military spending. In 2020, it spent US \$545.8 million (3.5 per cent of GDP) on its 9,000-strong army. Compared to the previous year, this represents an increase of six per cent. Botswana currently holds 21st position in the global ranking.

With a strong trend in militarisation (Δ GMI of +30.9), Chad is ranked third in the region and 29th globally in the 2021 GMI. The security situation in the Central African country has been extremely tense for years due to conflicts in the neighbouring Central African Republic, Libya, Nigeria and Sudan. In the fight against radical Islamist groups in the Sahel, the country is an important ally of Western countries. Between 2016 and 2020, the United States, therefore, transferred 78 David light armoured combat vehicles, among other things, to the country. In 2020, Chad spent US \$322 million on its armed forces comprising 33,250 soldiers and 11,900 paramilitaries, which corresponds to 3.1 per cent of its GDP. This represents a 37 per cent increase in the defence budget compared to the previous year.

Namibia comes in fourth place, investing US \$373 million, or 3.3 per cent of its GDP, in its military of 9,900 soldiers and 6,000 paramilitaries in 2020. Compared to the previous year, this represents only a slight trend in militarisation (Δ GMI of +3.6). The disputed island in the River Chobe, known as 'Kasikili' in Namibia and 'Sedudu' in Botswana, which was decided to form part of the territory of Botswana in 1999, is still a point of contention between the two countries. Currently, there are also conflicts because Namibian citizens are repeatedly shot dead as suspected poachers by Botswana's armed forces.

Mauritania in western Africa shows a clear trend in militarisation (Δ GMI of +14.6) compared to 2019. It ranks fifth in the regional ranking and 38th globally. Compared to the previous year (US \$162 million), it spent significantly more on its armed forces at US \$200 million. Defence spending thus accounted for 2.5 per cent of its GDP. The country has not been involved in any military conflicts since 1991. At present, there are no direct military threats to Mauritania. **South Sudan** ranks sixth within Sub-Saharan Africa and 44th in the global ranking. The country is considered one of the most fragile states in the world because of the civil war that lasted from 2013 to 2018 and its consequences that continue to this day. Even though the conflict over power in the country ended in 2020 with the formation of a transitional government, armed conflicts continued to occur, especially at the local level. While there is no data on South Sudan's military spending for 2020, it accounted for US \$186 million in 2019, which corresponded to 3.6 per cent of its GDP. Its armed forces consisted of 185,000 soldiers in 2020. Overall, the country's trend in militarisation is slightly declining.

Angola, which ranks seventh in the region and 47th in the global ranking, experienced the longest conflict on the African continent between 1961 and 2002, causing more than one million casualties. At the time of writing, the internal situation has stabilised. While there is still a movement for independence of the Cabinda region, today, it advocates for its goals without violence. Angola's military today comprises 107,000 soldiers and 10,000 paramilitaries, with government spending on it amounting to US \$993 million in 2020; markedly less than the previous year (US \$1.4 billion). Due to the lower GDP, however, military spending as a share of GDP remained stable at 1.6 per cent. All in all, the country shows a clear downwards trend in militarisation (Δ GMI of -9).

With a strong upward trend in militarisation (Δ GMI of +25.6), **Mali** is on eighth position of the regional ranking. This trend results from increased military spending (US \$580 million to US \$593 million) on the one hand and a significant expansion of its armed forces on the other. Its armed forces, consisting of 13,800 soldiers and 8,000 paramilitaries, have an additional 84 armoured personnel carriers at their disposal compared to the previous year. These were imported from France and South Africa, partly with financial support from Germany. With the country having been in a civil war since 2012, French and German troops have been there since 2013 to support and train the Malian Army. In 2020 and 2021, two coups destabilised the country further.

Gabon, located south of Cameroon, is in ninth position in the regional ranking (position 54 globally) and also shows a clear trend in militarisation (Δ GMI of +7.8). In 2020, the country, which only has some two million inhabitants, invested US \$322 million (1.8 per cent of GDP) in its armed forces consisting of 4,700 soldiers and 2,000 paramilitaries. While the country has not experienced an inter-or intra-state war since its independence in 1960, it did experience various coups and attempted coups.

The West African country of **Guinea-Bissau** is ranked tenth in the region and 57th in the global ranking of 2021. It maintains an army of 4,450 soldiers and spent US \$23 million on it in 2020. The country, which ranks 175th (of 189) in the Human Development Index (HDI), is considering reducing the target size of its armed forces to between 2,000 and 2,500 soldiers due to its weak economic situation.

Global and regional development of militarisation (2000–2020)

As mentioned earlier, in this second part, we will look at the global and regional development of militarisation over the past 20 years. This is not an easy undertaking in terms of methodology, as there are always gaps in our data. For example, the GMI does not cover all countries in the world, nor does it consist of a fixed sample of countries. As already mentioned, countries like Eritrea, Syria or North Korea, which presumably all have a very high degree of militarisation, are frequently not included. Instead, all those for which sufficient and sufficiently valid data is available are included in the GMI. This represents two main challenges for a differentiated time series analysis: For one, the number of countries in the individual regions can vary from year to year. For the other, data gaps also pose a

Info box

Time series analysis: Interpolation methodology and samples

Missing data for the time series analysis was interpolated, that is estimated and complemented, in different steps and at different levels.

Observing the global and regional development of militarisation, we interpolated missing GMI total scores at the 'top' level if there was no data available for a country for more than three years. For example, if Burkina Faso did not have a GMI score in 2005, 2006 and 2007 but did have a score in 2004 and 2008, this gap was filled with estimated data via proximal interpolation. We did not include countries with larger gaps in the analysis.

On the sub-index level, we applied the same rule regardless of the interpolation at the top level.

So, if our example of Burkina Faso, for instance, had no data for the Heavy Weapons Index for up to three years, we complemented these. We did this independently of the first level as the addition of data at the sub-index level would otherwise have affected them.

There is an important restriction: Our samples, whether at the global or the regional level, never cover the whole population, that is all respective countries. One small example: In our current annual ranking for 2020, the GMI 2021 contains 153 of the 195 countries recognised by the United Nations. This means that it currently achieves quite a good global coverage of just under 80 per cent. The sample we use to analyse the development of the GMI in the past 20 years is just slightly smaller, as some countries had to be excluded due to larger data gaps. We did not include countries, such as Montenegro or South Sudan, which were only founded or became independent in 2006 and 2011 respectively, because they were still too 'young' for the assessment period (2000–2020). Our global sample for the time series analysis, therefore, only consists of 147 countries and thus covers 75 per cent of recognised countries. Similarly, for the same reasons, our regional samples for the time series analysis never include all countries typically assigned to the region. For example, South Sudan is also missing from our analysis of the Sub-Saharan Africa region. In the respective analyses we, therefore, always indicate which countries are represented in the sample or were evaluated as examples for a specific region.

In all illustrations, the respective average (global or regional) values of the GMI score or sub-indices are shown on the y-axis.

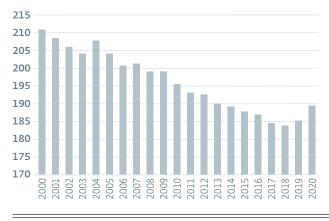
problem when looking at the individual sub-indices (Expenditure, Personnel and Heavy Weapons), as not all of the countries listed in the GMI for a given year also have a score for all three sub-indices. This is why we have tried to close these data gaps by interpolation (see Info box). Since we do not achieve 100 per cent coverage for any of our regional samples, we have named the countries that are included in the different samples in each analysis.

Global (de)militarisation 2000-2020

The GMI 2021 contains 153 of the 195 countries recognised by the United Nations. This means that it currently achieves quite a good global coverage of just under 80 per cent. Our sample for the analysis of the past 20 years is slightly smaller. It consists of 147 countries⁷ and covers 75 per cent.

Looking at the overall development of global militarisation between the year 2000 and 2020, it can be said that, expect for an interim peak in 2005, it fell significantly and steadily until 2018, before increasing again over the past two years.

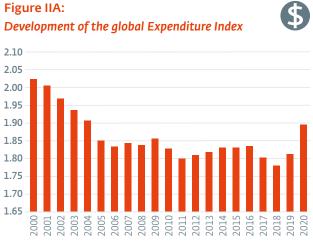
Figure I: Development of total militarisation 2000-2020



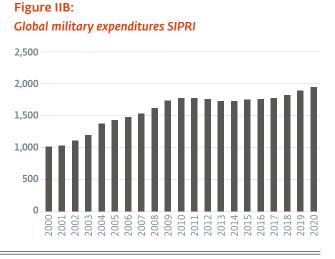
This steady process of demilitarisation and the trend towards (re)militarisation that has been emerging since 2018 are essentially linked to the development of two central reference variables of our Index: The national or global population sizes and those of the national and or rather the global gross domestic product. According to > \ World Bank data, the world's population grew by one-quarter (from 6.11 to 7.75 billion) in the twenty years of our assessment period. In the same period, global GDP increased by 150 per cent (from US \$33.7 to US \$84.57 billion). As explained in our methodology \ > page 4, these two factors play a crucial role for our Index, as it always puts the resources devoted to the military in relation to those devoted to society as a whole. According to our resource-based concept of militarisation, this means: A growing world population and growing global financial resources cause the share of the military sector in the GMI to decrease from 2000 to 2018. As Figure II shows, financial resources invested in the military decrease in relative terms to the global financial resources available from 2000 to 2018.

^{7 \} Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Belize, Benin, Bolivia, Bosnia-Herzegovina, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Congo (Dem. Rep.), Congo (Rep.), Costa Rica, Côte d' Ivoire, Croatia, Cyprus, Czech Republic, Denmark, Dominican Rep., Ecuador, Egypt, El Salvador, Estonia, Ethiopia, Fiji, Finland, France, Gabon, Gambia, Georgia, Federal Rep. of Germany, Ghana, Greece, Guatemala, Slovenia, Germany, Ghana, Greece, Guatemala, Guinea-Bissau, Guyana, Honduras, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Latvia, Lebanon, Lesotho, Libya, Lithuania, Luxembourg, Macedonia, Madagascar, Malawi, Malaysia, Mali, Malta, Mauritania, Mauritius, Mexico, Rep. Moldova, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Russia, Rwanda, Saudi Arabia, Senegal, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Korea, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Taiwan, Tajikistan, Tanzania, Thailand, Togo, Trinidad & Tobago, Tunisia, Turkey, Uganda, Ukraine, UAE, United Kingdom, Uruguay, USA, Venezuela, Vietnam, Yemen, Zambia, Zimbabwe

Figure IIA:



This, however, does not mean a 'real reversal of the trend' towards 'demilitarisation', as is evidenced by the absolute increase in military spending over the period under review (cf. figures by SIRPI).

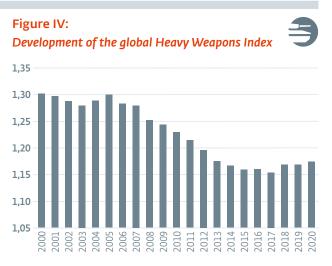


This trend of decreasing government military spending now seems to be over. While it was already interrupted at the time of the world's financial crises in 2007 and in 2014, it has been reversing again since 2019 in the wake of the COVID-19 crisis as the pandemic led to a drop in global GDP. This reversal of the trend can also be seen in the subindices, with one exception.

Only the Personnel Index shows a different development (see Figure III). While it declined slightly in the past 20 years, it showed a significant increase in 2005. From 2006 onwards, it dropped again until reaching the level of 2004 as of 2013. However, this supposed and sudden increase cannot be attributed to real developments but rather to missing data in the previous years. As explained in the methodology $\ > page 4$, the Personnel Index put the number of military personnel and others in relation to the number of physicians in an individual country. This data, however, is not always available for all countries and years-particularly for so-called fragile states or in phases of instability. This lack of data is reflected in a lower sub-index value. The observed significant increase in 2005 is thus merely due to an improved data situation. The real development would therefore represent more of a smoothed curve, in which the values between 2000 and 2004 would be at a level between 0.8 and 0.9.



The development regarding our Heavy Weapons Index is different. Similar to overall militarisation, the sub-index decreases between the years 2000 and 2017, except for the years 2004 to 2007, to increase again from 2017 onwards.



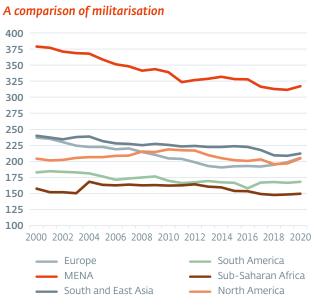
The perceived demilitarisation in heavy weapons can be explained, on the one hand, by the decline in 'classic' interstate wars and a potential change of warfare or military procurement (in preparation for such wars), on the other. For example, the Heavy Weapons Index currently does not cover military satellites or drones. It also does not sufficiently account for the upscaling of numerous heavy weapons systems in terms of range, speed and precision. As these weapons systems have become increasingly more important in current intra- and interstate wars, such as in Yemen and Syria or between Armenia and Azerbaijan, it may be that our current data may give a distorted "downward" picture.

Increasing tensions in the South China Sea (from 2012) and the Crimea crisis generated a wave of procurement, particularly in Europe, North America, South and East Asia, that is reflected in the Heavy Weapons Index as of 2017 and, again, led to an increase in the GMI. This trend continued in 2020, mainly because military procurement is a long-term process and has, therefore, hardly been affected by the COVID-19 pandemic.

Regional (de)militarisation 2000-2020

As is to be expected, there are different degrees of militarisation in the various world regions. Figure V compares the average score of militarisation in select regions. For the sake of clarity, the regions of South and East Asia, the Middle East and North Africa, and western, central and eastern Europe have each been combined into one region. For the same reason, Central America and the Caribbean, South America, Central Asia as well as Oceania were not included in the analysis. The latter are rather secondary in terms of global militarisation.

Figure V:

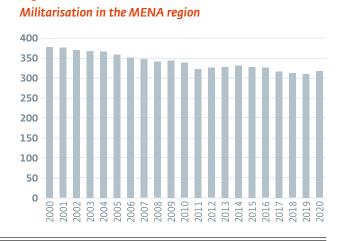


As one can clearly see, the so-called MENA region (Middle East and North Africa) is by far the most militarised region. It is followed by South and East Asia and Europe, which are also above the global average. While South and East Asia mostly ranked ahead of Europe in the past two decades, both regions converged again in the late 2010s. North America lagged behind Europe in the first years after the turn of the millennium. However, in the first decade, both show an inverse trend in militarisation, with North America showing a higher level of militarisation from 2009 onwards. Both continents exhibit an almost identical degree of militarisation at the end of the second decade. South America and Sub-Saharan Africa are slightly below average. In the following, we will take a closer look at the four regions MENA, Europe, South and East Asia and Sub-Saharan Africa.

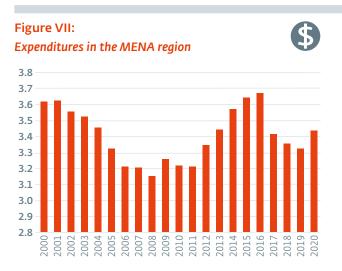
Middle East and North Africa

Figure VI:

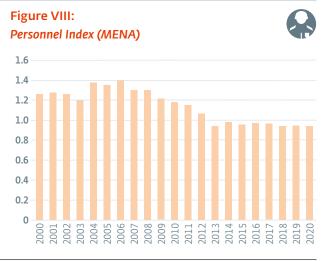
As can be seen in Figure VI, the so-called MENA region⁸ has maintained a relatively high degree of militarisation over the past two decades. Nonetheless, we can observe a slight decline between 2000 and 2020.



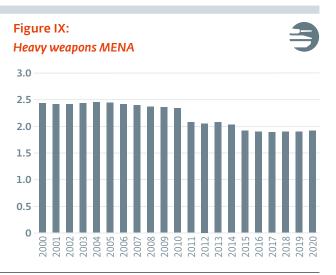
8 \ In our sample, the region is represented by the following countries: Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Saudi Arabia, Tunisia, United Arab Emirates, Yemen. Like this, we cover 88 per cent of the region's countries. In terms of financial resources, the picture is less clear. It is true that the resources allocated to the military compared to those available to other parts of society dropped steadily between 2000 and 2007. From 2011 to 2017, however, they exceeded the original level in the (re)autocratisation trend after the so-called Arab Spring, only to drop again after that.



Interestingly, this trend is neither reflected in a relative increase in human resources or heavy weapons after 2011. Instead, resources were most likely allocated to areas that are not covered by the GMI (such as small arms and light weapons, military infrastructure or wages). Human resources remained relatively stable between 2012 and 2020. As at the global level, missing data in the MENA region leads to a jump in the Personnel Index around 2005. Here, too, we assume that a flatter curve is more realistic. We should also bear in mind that the MENA region has the highest population growth of all regions in the world; a fact that leads to a drop in the Personnel Index.



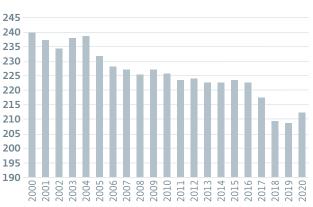
As the size of the population is also a key reference value for the Heavy Weapons Index, rising demographic figures also influence this sub-index. Over the last two decades, the Heavy Weapons Index in the MENA region has shown a negative trend. It is mostly stable at the time after the so-called Arab Spring.



South and East Asia

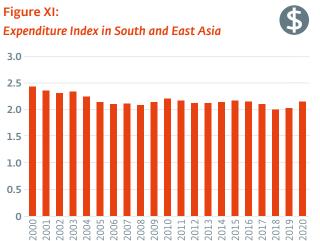
South and East Asia⁹ follow the MENA region as a region with a high degree of militarisation. It comprises highly militarised countries such as South Korea, Singapore, Sri Lanka and Brunei. The region is also characterised by tensions in the South China Sea and the permanent conflict between North and South Korea. Nevertheless, we also observe a general trend in demilitarisation over the past two decades in South and East Asia. However, this seems to end in early 2020. It is possible that the ensuing increase in militarisation—similar to 2009 after the global financial crisis, which also hit Asia hard—is a consequence of the current pandemic and the resulting weakening of national economies.

Figure X: Militarisation in South and East Asia

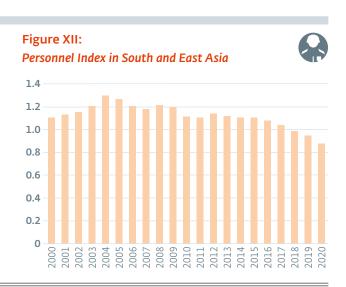


^{9 \} Our sample for the region includes the following countries: Bangladesh, Brunei, Cambodia, China, India, Indonesia, Japan, Malaysia, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Singapore, South Korea, Sri Lanka, Thailand and Vietnam. This sample covers all the countries in the region (100 per cent).

The consequences of the two global events are reflected, as Figure XI clearly shows, in a rise in the Expenditure Index and, in turn, have a greater impact on the overall score (due to the weighting of the sub-indices). Overall, however, the Expenditure Index has remained at a very stable high level in the region over the last two decades.



As concerns the Personnel Index, we observe a similar picture for the last two decades in South and East Asia as in the MENA region. The sub-index increased significantly from 2000 to 2004 due to the data and then continued to fall from there until 2020—with a few exceptions.



A much more diverse picture emerges when we look at the developments of the Heavy Weapons Index. Compared to the MENA region, militarisation in this domain is considerably less pronounced in South and East Asia. Slight peak phases can be seen between 2004 and 2007 and between 2012 and 2018.

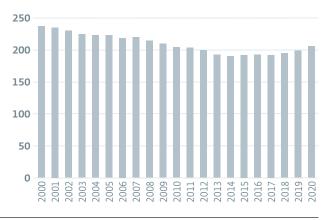
Figure XIII: Heavy Weapons Index South and East Asia 1.23 1.22 1.21 1.20 1.19 1.18 1.17 1.16 2008 2010 2001 2009 2011 2012 2013 2014 2015 2000 2002 2003 2004 2016 2007 2019 201 201

Europe

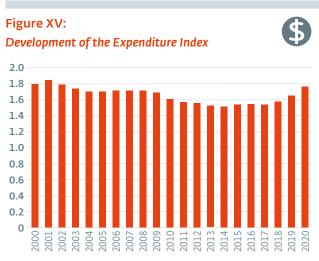
In our observation, Europe¹⁰ is one of the most militarised regions, after the MENA region and South and East Asia. While in the first decade of the new millennium, Europe recorded a steady trend towards demilitarisation, this process began to reverse as of 2017 at the latest.

Figure XIV:

Militarisation in Europe



This process is primarily driven by an increasing relational allocation of financial resources in the military sector. From 2017 onwards, our Expenditure Index, therefore, indicates a significant increase. In 2020, the degree of militarisation in this area is already at the level of 2003. This is related to a pandemic-related decline in the economic performance of many countries from 2019 onwards but also to deliberate political decisions. In Europe, the NATO two per cent target (set in 2014) and the modernisation of the Russian armed forces (since around 2008), amongst others, are such factors.



^{10 \} For our analysis, Europe consists of western, central and eastern Europe and is represented in our sample by the following countries: Albania, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Republic of Moldova, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom. In this sample we achieve a very good coverage of 95 per cent. Only Serbia and Montenegro are missing due to insufficient data.

Interestingly, our Personnel Index does not mirror this current development. In this area, we have witnessed a steady drop over the past decades. According to these results and in relative terms, fewer and fewer individuals are serving in European armies. Due to the better data situation, the otherwise recorded jump around the year 2005 cannot be observed, either. However, the general trend in militarisation in our Heavy Weapons Index has shown a contrasting development since 2017. Here, the increase started a little earlier, in 2014. As already indicated, this trend would certainly be somewhat more pronounced if, for example, remote-controlled drones were included.

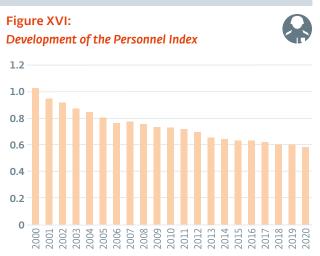
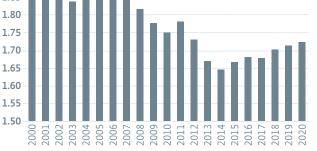
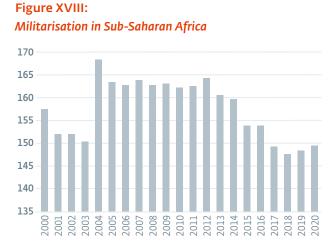


Figure XVII: Development of the Heavy Weapons Index

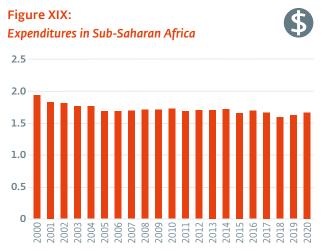


Sub-Saharan Africa

As already mentioned at the beginning, the African continent or rather the Sub-Saharan Africa region¹¹, in particular the Sahel and Central Africa, is currently the largest conflict region. Yet, in terms of its degree of militarisation, it falls well behind others discussed here.



Due to the fewer financial resources available, the Expenditure Index in Sub-Saharan Africa is relatively high. Over the last 20 years, the sub-index most likely also due to the high number of countries in the sample—remained fairly constant. The global economic crisis and the COVID-19 pandemic also have had little impact on relative spending in the military sector in the region.



11 \ Our sample for Sub-Saharan Africa consists of the following countries: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Rep., Chad, Congo (Dem. Rep. / Congo Kinshasa), Congo (Rep. /Congo Brazzaville), Côte d'Ivoire, Ethiopia, Gabon, Gambia, Ghana, Guinea-Bissau, Kenya, Lesotho, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Tanzania, Togo, Uganda, Zambia, Zimbabwe. Like this, we cover 86 per cent of the region's countries. In contrast, the development of the Personnel Index is somewhat more dynamic. Similar to the global picture, the MENA region and South and East Asia, it shows a rapid increase in 2005, only to drop again slightly. Since the data situation for Sub-Saharan Africa is poor, the data-related jump is particularly high here. Since the number of heavy weapons and military expenditures are comparatively low, this jump in the Personnel Index also has a greater impact on overall militarisation than in the other regions.

 Figure XX:
 Development of the Personnel Index

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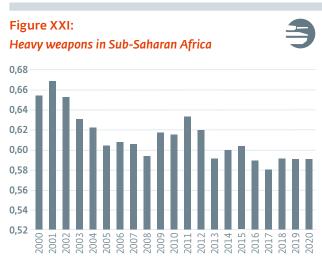
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The Heavy Weapons Index for Sub-Saharan Africa is fairly low compared to other regions. This is not very surprising, as the region is the setting for many low-intensity wars (wars over long periods with little use of resources). Over the past 20 years, the Heavy Weapons Index has decreased somewhat, which may be due to the fact that the stockpiles of heavy weapons in the region mostly date back to the Cold War era, when both blocs often provided military assistance. These weapons exceeded their service life in the last two decades and were rarely replaced.

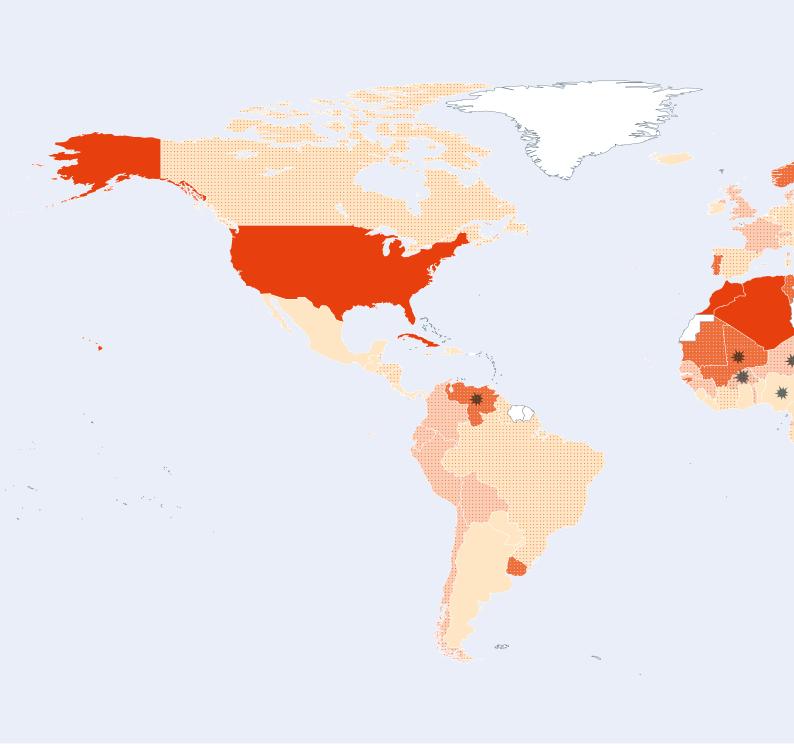


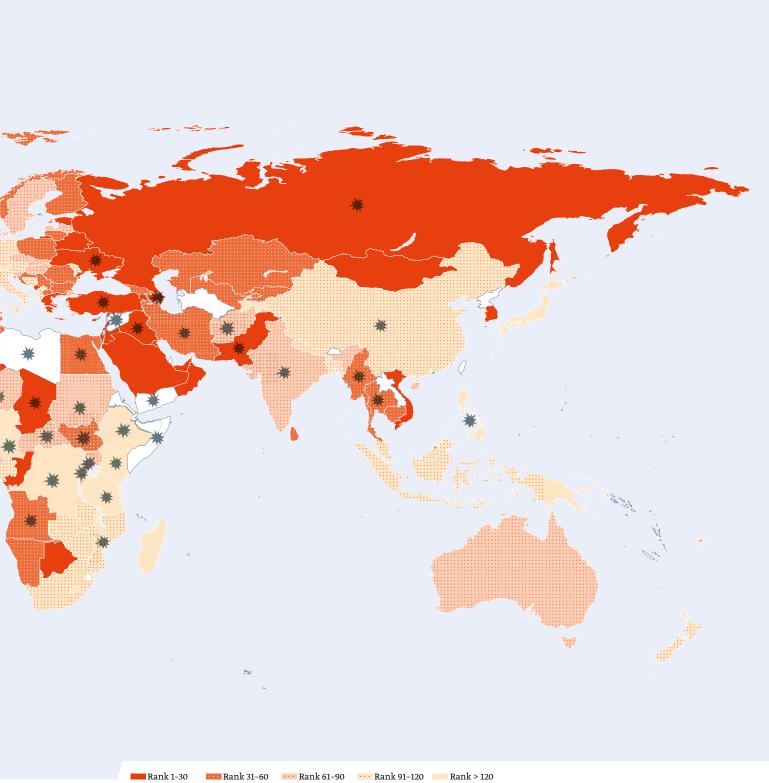
Here, a weakness of the GMI becomes apparent: Not only does it not cover weapons, such as drones or military technology, such as satellites, which are of great importance for 'modern' warfare but also small arms and light weapons (SALW)¹², which play a major role in violent conflict settings in Africa.

^{12 \} These include small arms that can be carried and operated by one person, such as revolvers, pistols, rifles, carbines, submachine guns, assault rifles and light machine guns, as well as light weapons such as machine guns, grenade launchers and portable launchers of antitank and anti-aircraft missiles and light mortars that are operated by several people.

The depiction and use of boundaries or frontiers and geographic names on this map do not necessarily imply official endorsement or acceptance by BICC.

Map 1 Overview GMI-ranking worldwide





🔲 no data available

Participation as a main actor in armed conflicts (2020)

MILITARISATION INDEX RANKING 2021

Rank Country

۱ Israel

2 Oman

3 Azerbaijan

4 Kuwait

5 Armenia**6** Saudi Arabia

7 Brunei

8 Bahrain

9 Singapore

10 Russia

11 Jordan

12 Algeria

13 Korea, Republic of

14 Greece

15 Cyprus

16 Ukraine

17 Lebanon

18 Iraq

19 Morocco

20 Congo, Republic of

21 Botswana

22 Turkey

23 Pakistan

24 Belarus

25 United States of America

26 Montenegro

27 Vietnam

28 Cuba

29 Chad

30 Estonia

31 Lithuania

32 Namibia33 Romania

34 Finland

35 Uzbekistan

36 Myanmar

37 Mongolia

38 Mauritania

39 Venezuela

40 Cambodia

41 Urugu<u>ay</u>

- 42 Iran
- 43 Egypt

44 South Sudan

Rank Country 45 Tunisia 46 Sri Lanka 47 Angola 48 Serbia 49 Croatia 50 Poland 51 Georgia 52 Norway 53 Mali 54 Gabon 55 Macedonia 56 Kyrgyzstan **57** Guinea-Bissau 58 Kazakhstan 59 Portugal 60 Thailand 61 Colombia 62 Chile 63 Bulgaria 64 Slovakia **65** India 66 Burundi **67** Afghanistan 68 Australia 69 Latvia 70 Uganda 71 France 72 Switzerland 73 Denmark 74 Sudan 75 Peru 76 Hungary 77 Sweden 78 United Kingdom 79 Bolivia 80 Equatorial Guinea 81 Fiii 82 Burkina Faso 83 Togo

84 Ecuador

85 Senegal

86 Rwanda

87 Slovenia

88 Czech Republic

89 Central African Republic 90 Niger 91 Spain 92 Malaysia 93 Guinea 94 Italv 95 El Salvador 96 Canada 97 China **98** Netherlands 99 Belgium 100 Bosnia and Herzegovina 101 Honduras 102 Albania 103 Germany 104 Austria 105 Moldova 106 Zambia 107 Luxembourg 108 Nepal 109 Nicaragua 110 Bangladesh 111 New Zealand 112 Jamaica 113 Zimbabwe 114 Brazil 115 South Africa 116 Belize 117 Cote D'Ivoire 118 Mozambique 119 Indonesia 120 Guyana 121 Paraguay 122 Malawi 123 Seychelles 124 Liberia 125 Kenya 126 Japan 127 Ethiopia 128 Philippines 129 Tajikistan 130 Gambia 131 Argentina 132 Cameroon

Rank Country

Rank Country
133 Benin
134 Dominican Republic
135 Lesotho
136 Tanzania
137 Timor-Leste
138 Guatemala
139 Nigeria
139 Nigeria
140 Congo, Democratic Republic of the
141 Sierra Leone
142 Ghana
143 Mexico

144 Ireland

145 Papua New Guinea

146 Madagascar

147 Cape Verde

148 Trinidad and Tobago

149 Malta

150 Mauritius

151 Panama

152 Costa Rica

153 Haiti

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