

GLOBAL PEACE INDEX 2019

**MEASURING PEACE
IN A COMPLEX WORLD**

INSTITUTE FOR
ECONOMICS
& PEACE



Quantifying Peace and its Benefits

The Institute for Economics & Peace (IEP) is an independent, non-partisan, non-profit think tank dedicated to shifting the world's focus to peace as a positive, achievable, and tangible measure of human wellbeing and progress.

IEP achieves its goals by developing new conceptual frameworks to define peacefulness; providing metrics for measuring peace and uncovering the relationships between business, peace and prosperity, as well as promoting a better understanding of the cultural, economic and political factors that create peace.

IEP is headquartered in Sydney, with offices in New York, The Hague, Mexico City, Brussels and Harare. It works with a wide range of partners internationally and collaborates with intergovernmental organisations on measuring and communicating the economic value of peace.

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Please cite this report as:

Institute for Economics & Peace. Global Peace Index 2019: Measuring Peace in a Complex World, Sydney, June 2019. Available from: <http://visionofhumanity.org/reports> (accessed Date Month Year).

Contents

EXECUTIVE SUMMARY

2

Key Findings

4

1 RESULTS

5

Highlights

6

2019 Global Peace Index Rankings

8

Regional Overview

13

Improvements & Deteriorations

20

2 TRENDS

25

GPI Trends

26

Peace Perceptions

32

Climate Change and Peace

43

3 ECONOMIC IMPACT OF VIOLENCE

57

Results

58

Methodology at a glance

63

4 POSITIVE PEACE

65

What is Positive Peace?

66

Positive Peace and Negative Peace

71

Positive Peace and the Economy

76

5 APPENDICES

83

Appendix A: GPI Methodology

84

Appendix B: GPI indicator sources, definitions & scoring criteria

88

Appendix C: GPI Domain Scores

96

Appendix D: Economic Cost of Violence

99

EXECUTIVE SUMMARY

This is the thirteenth edition of the Global Peace Index (GPI), which ranks 163 independent states and territories according to their level of peacefulness. Produced by the Institute for Economics and Peace (IEP), the GPI is the world's leading measure of global peacefulness. This report presents the most comprehensive data-driven analysis to date on peace, its economic value, trends, and how to develop peaceful societies.

The GPI covers 99.7 per cent of the world's population, using 23 qualitative and quantitative indicators from highly respected sources, and measures the state of peace using three thematic domains: the level of *Societal Safety and Security*; the extent of *Ongoing Domestic and International Conflict*; and the degree of *Militarisation*.

In addition to presenting the findings from the 2019 GPI, this year's report includes analysis of trends in Positive Peace: the *attitudes, institutions, and structures* that create and sustain peaceful societies. It looks at the relationship between the actual peace of a country, as measured by the GPI, and Positive Peace, and how a deficit of Positive Peace is often a predictor of future increases in violent conflict. It also looks at the dynamic relationship between changes in Positive Peace and changes in the economy.

The results this year show that the average level of global peacefulness improved very slightly in the 2019 GPI. This is the first time the index has improved in five years. The average country score improved by 0.09 per cent, with 86 countries improving, and 76 recording deteriorations. The 2019 GPI reveals a world in which the conflicts and crises that emerged in the past decade have begun to abate, but new tensions within and between nations have emerged.

Iceland remains the most peaceful country in the world, a position it has held since 2008. It is joined at the top of the index by New Zealand, Austria, Portugal, and Denmark. Bhutan has recorded the largest improvement of any country in the top 20, rising 43 places in the last 12 years.

Afghanistan is now the least peaceful country in the world, replacing Syria, which is now the second least peaceful. South Sudan, Yemen, and Iraq comprise the remaining five least peaceful countries. This is the first year since the inception of the index that Yemen has been ranked amongst the five least peaceful countries.

Four of the nine regions in the world became more peaceful over the past year. The greatest increase in peacefulness occurred in the Russia and Eurasia region, followed by the Middle East and North Africa. In both of these regions, the number of deaths from conflict declined, owing to the de-escalation of violence in Ukraine and Syria respectively. The fall in conflict deaths has been mirrored by a fall in deaths from terrorism.

All three regions in the Americas recorded a deterioration in peacefulness in the 2019 GPI, with Central America and the Caribbean showing the largest deteriorations, followed by South America, and then North America. Increasing political instability has been an issue across all three regions, exemplified by the violent unrest seen in Nicaragua and Venezuela, and growing political polarisation in Brazil and the United States.

The trend in peacefulness since 2008 shows that global peacefulness has deteriorated by 3.78 per cent, with 81 GPI countries recording a deterioration, and 81 improving, highlighting that deteriorations in peacefulness are generally larger than improvements. The index has deteriorated for eight of the last twelve years, with the last improvement in peacefulness before 2019 occurring in 2014. Seventeen of the 23 GPI indicators are less peaceful on average in 2019 when compared to 2008.

Two of the three GPI domains deteriorated over the past decade, with *Ongoing Conflict* deteriorating by 8.69 per cent and *Safety and Security* deteriorating by 4.02 per cent. Terrorism and internal conflict have been the greatest contributors to the global deterioration in peacefulness. One hundred and four countries recorded increased terrorist activity, while only 38 improved, and the total number of conflict deaths increased by 140 per cent between 2006 and 2017.

However, contrary to public perception, the *Militarisation* domain has recorded a 2.6 per cent improvement since 2008. The *number of armed services personnel per 100,000 people* has fallen in 117 countries, and *military expenditure as a percentage of GDP* fell in 98 countries, with only 63 countries increasing their spending.

Perceptions of peacefulness have increased in some areas but decreased in others. More people across the world now feel that they have more freedom in life, are

more satisfied with life, and are treated with more respect than in 2008. Many more people also feel that their countries are better places to live for ethnic and religious minorities. However, daily feelings of sadness, worry, and stress have also increased over the same time period.

There is a strong correlation between perceptions of peacefulness and actual peacefulness as measured by the GPI. Both men and women in more peaceful countries are more likely to report that they feel safe walking alone at night than people in less peaceful countries. There is also a greater level of trust in police in more peaceful societies.

Perceptions of trust in the world's most powerful countries has fallen since 2008. Confidence in US leadership has fallen more than confidence in Russian, Chinese and German leadership in the past five years, with people on average now having more confidence in Chinese leadership than the US.

Dealing with these negative trends in peacefulness becomes even more crucial when looking at the potential impact of climate change on peace. An estimated 971 million people live in areas with high or very high climate change exposure. Of this number, 400 million (41 per cent) reside in countries which already have low levels of peacefulness.

Climate change can indirectly increase the likelihood of violent conflict through its impacts on resource availability, livelihood, security and migration. In order to address these challenges, there will need to be much greater cooperation both within and between countries. Countries with high levels of Positive Peace are better able to manage climate-induced shocks and tend to have higher environmental performance than those with lower levels of Positive Peace.

The economic impact of violence on the global economy in 2018 was \$14.1 trillion in purchasing power parity (PPP) terms. This figure is equivalent to 11.2 per cent of the world's economic activity (gross world product) or \$1,853 for every person. The economic impact of violence improved by 3.3 per cent during 2018. The greatest improvement was in *Armed Conflict*, which decreased by 29 per cent to \$672 billion, owing to a fall in the intensity of conflict in Syria, Colombia and Ukraine. There was also a substantial reduction in the economic impact of *terrorism*, which fell by 48 per cent from 2017 to 2018.

Violence continues to have a significant impact on economic performance around the globe. In the ten countries most affected by violence, the average economic cost of violence was equivalent to 35 per cent of GDP, compared to just 3.3 per cent in the countries least affected by violence. Syria, Afghanistan

and the Central African Republic incurred the largest economic cost of violence in 2018 as a percentage of their GDP, equivalent to 67, 47 and 42 per cent of GDP, respectively.

The economic impact of violence model includes data on *suicide* for the first time in the 2019 GPI. The report finds that the economic impact of *suicide* is higher than that of *Armed Conflict*, amounting to \$737 billion in 2018.

The report's Positive Peace research analyses the relationship between the GPI and Positive Peace. There is a strong correlation between the GPI and Positive Peace. Countries with high levels of both Positive and Negative Peace have achieved a sustainable peace and are unlikely to fall into conflict. Conversely, many of the countries with low levels of both Positive and Negative Peace have fallen into a violence trap, and find it difficult to escape from vicious cycles of conflict.

Some countries score much higher on the GPI than their Positive Peace score would indicate. This is known as a Positive Peace deficit, and research has shown that these countries are more likely to have increased levels of violence in the future, because they lack the necessary *attitudes, institutions and structures* to prevent violence from breaking out once the country receives a shock.

Some pillars of Positive Peace exhibit tipping points. Small improvements or deteriorations in Positive Peace can trigger large increases or decreases in their GPI scores. This tipping point can be seen when looking at the relationship between corruption, economic growth, inequality, and the GPI's *Safety and Security* domain.

The report also finds that Positive Peace is dynamically associated with economic development. There is a strong correlation between changes in the Positive Peace Index and GDP growth between 2005 and 2018. Greater household consumption is a key reason for the link between improvements in Positive Peace and economic performance. Households are particularly helped by improvements in public administration.

On the production side, business activity responds particularly well to improvements in public administration and attempts to curb corruption. Services and construction are particularly responsive to improvements in Positive Peace. Manufacturing and agriculture are less responsive, especially in countries outside of the Organisation for Economic Cooperation and Development (OECD) and the Brazil, Russia, India, China (BRIC) groups.

KEY FINDINGS

SECTION 1: RESULTS

- The average level of global peacefulness improved very slightly, for the first time in five years, on the 2019 GPI.
- The average country score improved by -0.09 per cent from last year, with 86 countries improving, and 76 recording deteriorations.
- The Middle East and North Africa region remained the world's least peaceful region. It is home to four of the ten least peaceful countries in the world, with no country from the region ranked higher than 30th on the GPI.
- Europe remains the most peaceful region in the world, and it recorded a very slight improvement in peacefulness after several years of deterioration. Twenty-two of the 36 European countries recorded improvements on the 2019 GPI.
- Peacefulness improved on average on both the *Safety and Security* and *Militarisation* domains, with a small deterioration on the *Ongoing Conflict* domain.
- Of the 23 GPI indicators, eight recorded an improvement, 12 had a deterioration, with the remaining three indicators not registering any change over the past year.
- The *Militarisation* domain had the largest improvement of the three GPI domains, with *UN peacekeeping funding*, *military expenditure as a percentage of GDP*, and *weapons exports* having notable improvements.
- Seventy-two countries reduced their level of *military expenditure as a percentage of GDP* in the 2019 GPI, with the majority of the largest improvements occurring in countries in sub-Saharan Africa, South America, and the Middle East and North Africa.
- Despite the overall improvement on the *Safety and Security* domain, there were a number of indicators that deteriorated, including the *perceptions of criminality* and *incarceration rate* indicators.

SECTION 2: TRENDS

- The average level of global peacefulness has deteriorated by 3.78 per cent since 2008. Over that period, 81 countries deteriorated in peacefulness, while 81 improved.
- The gap between the least and most peaceful countries continues to grow. Since 2008, the 25 least peaceful countries declined on average by 11 per cent, while the 25 most peaceful countries improved by 1.8 per cent on average.
- Conflict in the Middle East has been the key driver of the global deterioration in peacefulness.
- Of the three GPI domains, two recorded a deterioration while one improved. *Ongoing Conflict* deteriorated by 8.7 per cent and *Safety and Security* deteriorated by just over four per cent. However, *Militarisation* improved by 2.6 per cent.
- The indicator with the most widespread deterioration globally was the *terrorism impact* indicator. Just over 63 per cent of countries recorded increased levels of terrorist activity. However, the number of deaths from terrorism has been falling globally since 2014.
- Deaths from conflict rose by 140 per cent since 2008. However, since the peak in 2014, conflict deaths have fallen by 26.5 per cent.
- Despite a fall in peacefulness globally, there have been increases in average feelings of life satisfaction and wellbeing, perceptions of safety, and confidence in the local police and military.
- Trends in negative personal feelings more closely match the trend in peacefulness. Perceptions of stress, worry, and sadness have risen on average, as the world has become less peaceful.
- Perception of leadership in the world's most influential countries has been declining. Confidence in US leadership has fallen the most in the past five years, with people now having more confidence in China than the US on average.
- An estimated 971 million people live in areas with high or very high climate change exposure. Of this number, 400 million (41 per cent) reside in countries with already low levels of peacefulness.

SECTION 3: ECONOMIC IMPACT OF VIOLENCE

- The global economic impact of violence improved for the first time since 2012, decreasing by 3.3 per cent or \$475 billion from 2017 to 2018.
- The global economic impact of violence was \$14.1 trillion PPP in 2018, equivalent to 11.2 per cent of global GDP or \$1,853 per person.
- The improvement in the global economic impact of violence is largely due to the decrease in the impact of *Armed Conflict* particularly in Iraq, Colombia and Ukraine, where the impact of *Armed Conflict* decreased by 29 per cent to \$672 billion in 2017.
- The economic impact of *terrorism* recorded the largest percentage improvement in 2018, down by 48 per cent from 2017.
- Syria, Afghanistan and the Central African Republic incurred the largest economic cost of violence in 2018 as a percentage of their GDP, equivalent to 67, 47 and 42 per cent of GDP, respectively.
- In the ten countries most affected by violence, the average economic cost was equivalent to 35 per cent of GDP, compared to 3.3 per cent in the ten least affected.

SECTION 4: POSITIVE PEACE

- Positive and Negative Peace are highly correlated, with most countries recording rankings in the Positive Peace Index broadly in line with their position on the GPI.
- Some countries have higher levels of Negative Peace than Positive Peace. This is known as a Positive Peace deficit, and these countries are more likely to have increased levels of violence in the future.
- Positive Peace is most closely correlated with the *Safety and Security* domain of the GPI. It also has a strong correlation with the *Ongoing Conflict* domain, but only has a very weak correlation with the *Militarisation* domain.
- There are tipping points where small increases in Positive Peace can trigger large changes in GPI scores. Tipping points occur for *Safety and Security*, *Sound Business Environment*, *Low Levels of Corruption*, and *Equitable Distribution of Resources*.
- Positive Peace is dynamically associated with economic development, with the correlation coefficient between changes in the Positive Peace Index (PPI) overall score and real GDP growth being -0.45. Greater household consumption is a key reason for this link.
- Services and construction are particularly responsive to improvements in Positive Peace. Manufacturing and agriculture are less responsive, especially in non-OECD, non-BRIC nations.
- Low-peace countries tend to rely more heavily on agriculture. When the level of the PPI overall score improves beyond the tipping point, economies tend to transition to services and manufacturing.
- A country's progress in Positive Peace improves socio-economic conditions domestically. Most of the economic growth is driven domestically.



RESULTS

Highlights



The average level of global peacefulness improved very slightly last year on the 2019 Global Peace Index (GPI). This was the first time that the index improved in the last five years. The average country score improved by -0.09 per cent, with 86 countries improving and 76 recording deteriorations.

Despite this improvement, the world remains considerably less peaceful now than a decade ago, with the average level of peacefulness deteriorating by 3.78 per cent since 2008. Global peacefulness has only improved for three of the last ten years. The fall in peacefulness over the past decade was caused by a wide range of factors, including increased terrorist activity, the intensification of conflicts in the Middle East, rising regional tensions in Eastern Europe and northeast Asia, and increasing numbers of refugees and heightened political tensions in Europe and the US.

This deterioration was partially offset by improvements in many of the measures of the *Militarisation* domain. There has been a consistent reduction in *military expenditure as a percentage of GDP* for the majority of countries, as well as a fall in the *armed services personnel rate* for most countries in the world.

The Middle East and North Africa (MENA) remained the world's least peaceful region. It is home to four of the ten least peaceful countries in the world, with no country from the region ranked higher than 30th on the GPI. However, despite ongoing armed conflict and instability in the region, it did become marginally more peaceful last year. The bulk of the improvement occurred in the *Safety and Security* domain, with average improvements in score for the *homicide rate*, *incarceration rate*, *terrorism impact*, *Political Terror Scale*, and *violent crime* indicators.

Europe remains the most peaceful region in the world and it recorded a very slight improvement in peacefulness after several years of deterioration. Twenty-two of the 36 European countries recorded improvements in 2018, with the largest improvements occurring for *political terror*, *terrorism impact*, *refugees and IDPs*, and *homicide rate* indicators. However, despite these improvements, the broader political environment in Europe remains uncertain, and resurgent nationalism and terrorism remain significant threats to peace.

The largest improvement in peacefulness occurred in the Russia and Eurasia region, with eight of the 12 countries in the region recording improvements.

The GPI measures more than just the presence or absence of war. It captures the absence of violence or the fear of

violence across three domains: *Safety and Security*, *Ongoing Conflict*, and *Militarisation*.

Peacefulness improved on average in both the *Safety and Security* and *Militarisation* domains, with a small deterioration in the *Ongoing Conflict* domain. Of the 23 GPI indicators, eight recorded an improvement and 12 had a deterioration, with the remaining three indicators not registering any change over the past year.

The *Militarisation* domain had the largest improvement of the three GPI domains, with *UN peacekeeping funding*, *military expenditure as a percentage of GDP*, and *weapons exports* having notable improvements. Seventy-two countries

reduced their level of *military expenditure as a percentage of GDP* in the 2019 GPI, with the majority of the largest falls occurring in countries in sub-Saharan Africa, South America, and the Middle East and North Africa. The Republic of the Congo recorded the largest fall in *military expenditure as a percentage of GDP*, declining by 3.4 percentage points. It was followed by Iraq, which declined by 2.5 percentage points, and Oman, which fell by 1.1 percentage points. Only Trinidad and Tobago had an increase in *military*

expenditure as a percentage of GDP of more than one percentage point.

This fall in year-on-year military expenditure echoes the longer-term trend, which has seen 98 countries reduce *military expenditure as a percentage of GDP* since 2008, while only 63 increased expenditures as a percentage of GDP.

The *weapons exports* indicator continues to reflect the unequal geographic distribution of the global arms industry, with 63 per cent of countries having no *weapons exports* over the past five years. Of the eleven countries with the highest levels of per capita *weapons exports*, eight are in Europe with the remaining three countries being the US, Russia, and Israel. In total, 98 countries had an improvement on the *Militarisation* domain over the past year, compared to 63 that deteriorated.

The *Safety and Security* domain improved on average, with 85 countries improving and 74 deteriorating. The largest improvement occurred on the *Political Terror Scale* indicator,



The *Militarisation* domain had the largest improvement of the three GPI domains, with *UN peacekeeping funding*, *military expenditure as a percentage of GDP*, and *weapons exports* having notable improvements.



which had 41 countries improve and 27 deteriorate. This continues the longer-term trend seen over the last decade. This improvement in political terror occurred despite a rise in authoritarianism in some countries. Every region in the world, bar South America, recorded an improvement or no change on this indicator, with the largest improvements occurring in Costa Rica, Guinea-Bissau, Qatar, Somalia, and The Gambia. However, in South America the level of political terror rose in Paraguay, Venezuela, and Colombia leading to an overall deterioration in the region for this indicator.

Despite the overall improvement on the *Safety and Security* domain, there were a number of indicators that deteriorated, including the *perceptions of criminality* and *incarceration rate* indicators. A number of countries recorded large increases in their incarceration rate, most notably China. An estimated one million people, most of them ethnic Uighur Muslims, are now being held in re-education camps in Xinjiang.

The largest regional deterioration on the *Safety and Security* domain as a whole occurred in North America. This was largely the result of falls in peacefulness in the US, which had deteriorations on the *violent crime*, *homicide rate*, and *political instability* indicators. The spotlight on peacefulness in the US is only likely to increase in the lead up to the 2020 federal election.

In summary, the 2019 GPI reveals a world in which the tensions, conflicts and crises that emerged in the past decade remain unresolved, but some progress has been made towards achieving peace. However, while in some instances long-running conflicts have begun to decline or at least plateau, the underlying causes of many of these conflicts have not been addressed, and the potential for violence to flare up remains very real. There have also been new tensions arising, and growing dissatisfaction with governments around the world, which has led to an increasing authoritarian response in some countries.

Additionally, measures of Positive Peace have slightly deteriorated over the last three years. Positive Peace is a strong leading indicator of future peacefulness, with large deteriorations in Positive Peace being statistically linked to later falls in peace. Unless these underlying causes are addressed in a systemic fashion, and the attitudes, institutions and structures that build and sustain peaceful societies are supported, it seems likely that the overall deterioration in peacefulness will resume in the years to come.

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The 2019 GPI reveals a world in which the tensions, conflicts, and crises that emerged in the past decade remain unresolved.

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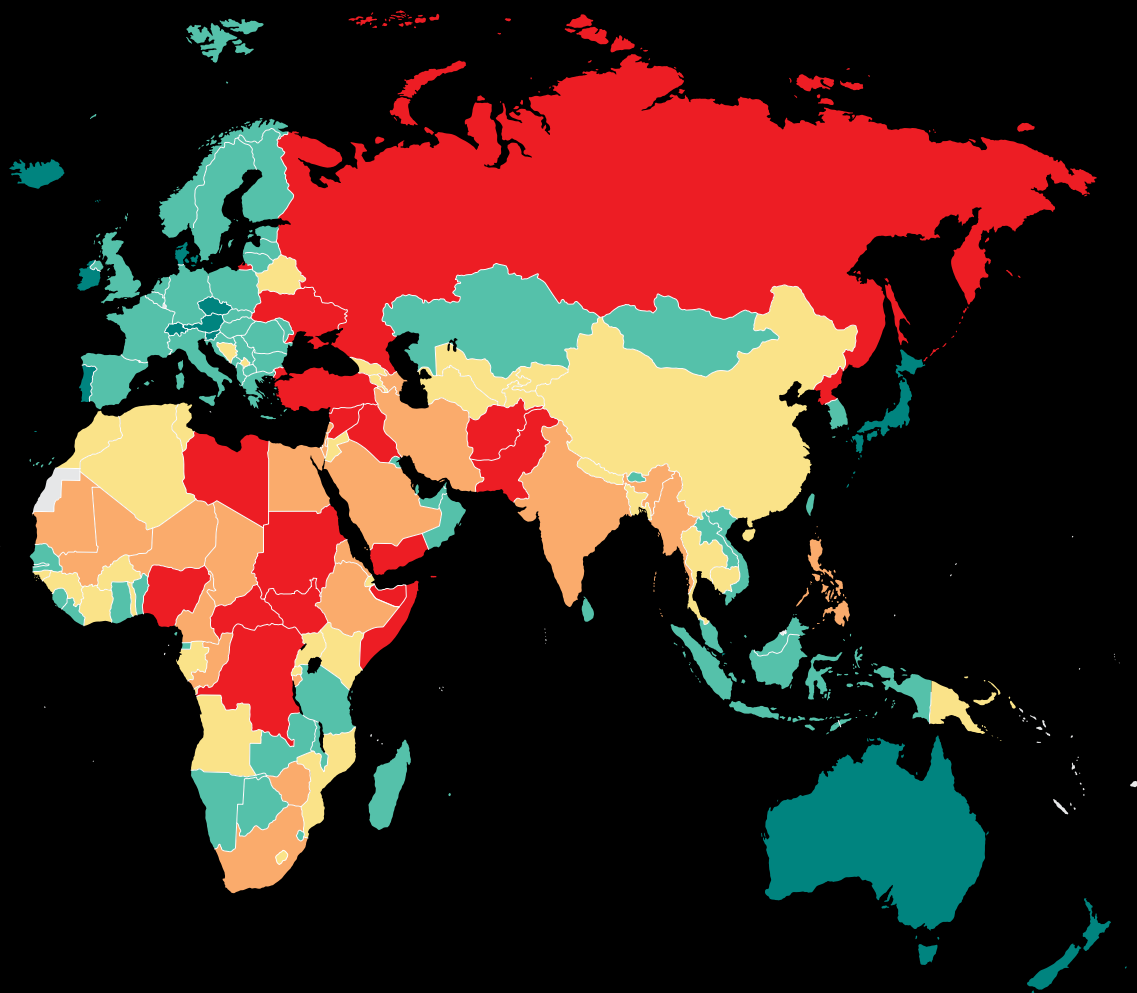
2019 GLOBAL PEACE INDEX

A SNAPSHOT OF THE
GLOBAL STATE OF PEACE

THE STATE OF PEACE



RANK	COUNTRY	SCORE	CHANGE	RANK	COUNTRY	SCORE	CHANGE	RANK	COUNTRY	SCORE	CHANGE
1	Iceland	1.072	↔	29	Poland	1.654	↑ 3	57	Vietnam	1.877	↑ 5
2	New Zealand	1.221	↔	30	Botswana	1.676	↑ 1	58	Senegal	1.883	↓ 4
3	Portugal	1.274	↑ 2	31	Qatar	1.696	↑ 10	59	Liberia	1.889	↑ 4
4	Austria	1.291	↓ 1	32	Spain	1.699	↓ 3	=60	France	1.892	↓ 2
5	Denmark	1.316	↓ 1	33	Costa Rica	1.706	↑ 5	=60	Namibia	1.892	↓ 18
6	Canada	1.327	↔	34	Uruguay	1.711	↑ 3	62	The Gambia	1.908	↑ 12
7	Singapore	1.347	↑ 2	35	Latvia	1.718	↓ 5	63	Cyprus	1.914	↓ 2
8	Slovenia	1.355	↑ 2	36	Taiwan	1.725	↓ 2	64	Kazakhstan	1.932	↑ 5
9	Japan	1.369	↓ 1	37	Estonia	1.727	↓ 4	=65	Greece	1.933	↑ 14
10	Czech Republic	1.375	↓ 3	38	Lithuania	1.728	↓ 2	=65	North Macedonia	1.933	↑ 23
11	Switzerland	1.383	↑ 2	39	Italy	1.754	↔	67	Montenegro	1.939	↓ 8
12	Ireland	1.390	↓ 1	40	Malawi	1.779	↑ 4	68	Moldova	1.951	↓ 5
13	Australia	1.419	↓ 1	41	Indonesia	1.785	↑ 14	69	Oman	1.953	↑ 2
14	Finland	1.488	↔	42	Mongolia	1.792	↔	70	Equatorial Guinea	1.957	↓ 5
15	Bhutan	1.506	↑ 2	43	Kuwait	1.794	↑ 7	71	Ecuador	1.980	↓ 3
16	Malaysia	1.529	↑ 9	44	Ghana	1.796	↓ 5	=72	Benin	1.986	↔
17	Netherlands	1.530	↑ 2	=45	Laos	1.801	↑ 2	=72	Sri Lanka	1.986	↓ 2
=18	Belgium	1.533	↑ 3	=45	United Kingdom	1.801	↑ 5	=72	Eswatini	1.986	↑ 10
=18	Sweden	1.533	↓ 3	47	Panama	1.804	↑ 2	75	Argentina	1.989	↓ 8
20	Norway	1.536	↓ 4	=48	Timor-Leste	1.805	↑ 12	76	Nepal	2.003	↑ 12
21	Hungary	1.540	↑ 1	=48	Zambia	1.805	↔	=77	Angola	2.012	↑ 3
22	Germany	1.547	↓ 4	50	Serbia	1.812	↑ 5	=77	Jordan	2.012	↑ 20
23	Slovakia	1.550	↔	51	Albania	1.821	↑ 2	79	Rwanda	2.014	↑ 24
24	Mauritius	1.562	↓ 4	52	Sierra Leone	1.822	↓ 18	80	Peru	2.016	↓ 7
25	Romania	1.606	↓ 1	53	United Arab Emirates	1.847	↓ 8	81	Bosnia & Herzegovina	2.019	↑ 9
26	Bulgaria	1.607	↔	54	Tanzania	1.860	↓ 2	82	Tunisia	2.035	↓ 7
27	Chile	1.634	↑ 1	=55	Madagascar	1.867	↑ 2	83	Jamaica	2.038	↑ 10
28	Croatia	1.645	↓ 1	=55	South Korea	1.867	↓ 9	84	Dominican Republic	2.041	↑ 7



IMPROVEMENTS

86

countries were more peaceful in 2019 than 2018

DETERIORATIONS

76

countries were less peaceful in 2019 than in 2018

OVERALL AVERAGE CHANGE (%)

-0.09

The global GPI average improved 0.09 per cent from 2018 to 2019

RANK	COUNTRY	SCORE	CHANGE	RANK	COUNTRY	SCORE	CHANGE	RANK	COUNTRY	SCORE	CHANGE
85	Bolivia	2.044	↓ 4	113	El Salvador	2.262	↑ 2	141	India	2.605	↓ 4
86	Kosovo	2.049	↑ 8	114	Guatemala	2.264	↓ 4	142	Palestine	2.608	↓ 2
87	Haiti	2.052	↔	115	Turkmenistan	2.265	↑ 4	143	Colombia	2.661	↑ 2
88	Paraguay	2.055	↓ 12	116	Brazil	2.271	↓ 10	144	Venezuela	2.671	↓ 2
89	Cambodia	2.066	↑ 8	116	Thailand	2.278	↓ 3	145	Mali	2.710	↑ 2
90	Morocco	2.070	↓ 13	118	Armenia	2.294	↑ 3	146	Israel	2.735	↑ 1
91	Cuba	2.073	↓ 7	119	Kenya	2.300	↑ 1	147	Lebanon	2.800	↓ 26
92	Guyana	2.075	↓ 9	120	Nicaragua	2.312	↓ 54	148	Nigeria	2.898	↔
93	Trinidad and Tobago	2.094	↓ 7	121	Rep of the Congo	2.323	↑ 1	149	North Korea	2.921	↑ 1
94	Mozambique	2.099	↓ 9	122	Mauritania	2.333	↑ 5	150	Ukraine	2.950	↑ 2
95	Kyrgyz Republic	2.105	↑ 13	123	Honduras	2.341	↓ 7	151	Sudan	2.995	↑ 3
96	Gabon	2.112	↓ 1	124	Bahrain	2.357	↑ 5	152	Turkey	3.015	↓ 3
97	Belarus	2.115	↑ 4	125	Myanmar	2.393	↓ 2	153	Pakistan	3.072	↓ 2
98	Papua New Guinea	2.118	↓ 2	126	Niger	2.394	↑ 6	154	Russia	3.093	↓ 1
99	Georgia	2.122	↑ 3	127	South Africa	2.399	↓ 2	155	Dem. Rep of the Congo	3.218	↔
100	Guinea	2.125	↔	128	USA	2.401	↓ 4	156	Libya	3.285	↑ 1
101	Bangladesh	2.128	↓ 9	129	Saudi Arabia	2.409	↓ 1	157	Central African Rep	3.296	↓ 1
102	Uzbekistan	2.166	↑ 2	130	Azerbaijan	2.425	↑ 3	158	Somalia	3.300	↑ 1
103	Lesotho	2.167	↑ 1	131	Ethiopia	2.434	↔	159	Iraq	3.369	↑ 1
104	Burkina Faso	2.176	↓ 26	132	Zimbabwe	2.463	↓ 6	160	Yemen	3.412	↓ 2
105	Tajikistan	2.196	↑ 12	133	Eritrea	2.504	↑ 6	161	South Sudan	3.526	↔
105	Uganda	2.196	↑ 2	134	Philippines	2.516	↑ 4	162	Syria	3.566	↑ 1
107	Cote d' Ivoire	2.203	↑ 4	135	Burundi	2.520	↑ 1	163	Afghanistan	3.574	↓ 1
108	Togo	2.205	↓ 9	136	Egypt	2.521	↑ 7				
109	Djibouti	2.207	↑ 4	137	Chad	2.522	↓ 2				
110	China	2.217	↑ 2	138	Cameroon	2.538	↓ 4				
111	Algeria	2.219	↓ 2	139	Iran	2.542	↓ 9				
112	Guinea-Bissau	2.237	↑ 6	140	Mexico	2.600	↑ 1				

Results



The 2019 GPI finds that the world became more peaceful for the first time in five years, with the average level of country peacefulness improving slightly by 0.09 per cent. The increase in peacefulness was the result of a reduction in the severity of several major conflicts worldwide, which led to decreases in deaths from internal conflict.

The largest domain improvement in the 2019 GPI was in *Militarisation*. The long-term trend of falling militarisation continued, with falls in both *military expenditure* as a percentage of GDP, and the size of armies around the world. *Safety and Security* also slightly improved based on substantial reductions in *political terror* and *refugees and IDPs*. However, these improvements were offset by deteriorations in *perceptions of criminality* and *incarceration*.

The *Ongoing Conflict* domain was the only domain to deteriorate, despite improvements in some of the more intense conflicts and the defeat of Islamic State of Iraq and the Levant (ISIL). The deterioration was due to a group of countries becoming involved in a number of smaller conflicts across the globe. Figure 1.1 shows the change in the average levels of peacefulness for the overall score and each of the domains, as well as the percentage of countries that improved or deteriorated. In total, peacefulness improved in 86 countries and deteriorated in 76.

In the 2019 GPI, 86 countries improved while 76 countries deteriorated, with the global average GPI score improving by 0.09 per cent. This was the highest number of countries to improve in peacefulness in a single year since the 2013 GPI. The largest improvement was recorded for the *Militarisation* domain, with 98 countries registering improvements in peace.

There were improvements in many indicators, but the indicator with the largest improvement was the *UN Peacekeeping funding*, with 100 countries recording improvements. It also had the largest average improvement in score, as seen in Figure 1.2.

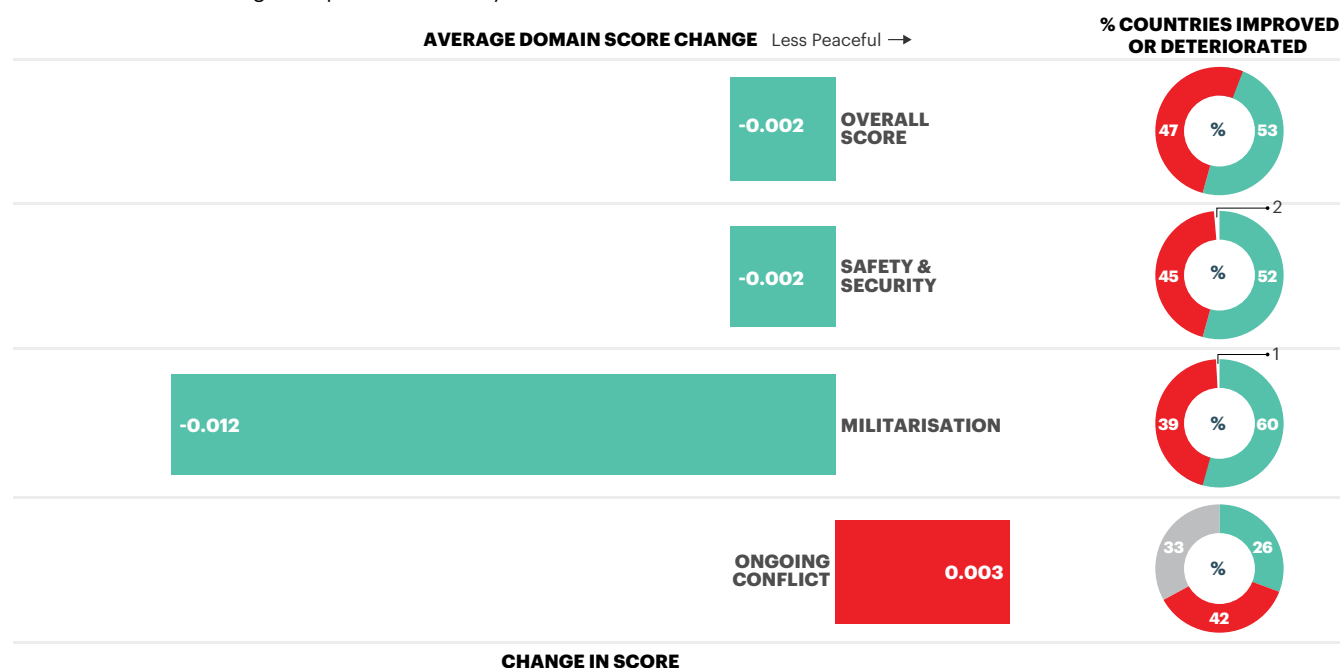
Similarly, 92 countries improved their *terrorism impact* scores, continuing a five-year trend that started after deaths from terrorism peaked in 2014. However, the average terrorism score actually deteriorated, owing to large increases in the impact of terrorism in a handful of countries. Military expenditure as a percentage of GDP also continued to improve, with 72 countries recording improvements.

The largest number of countries to deteriorate for any indicator occurred for the *nuclear and heavy weapons* and *incarceration rate* indicators, with 76 and 64 countries recording deteriorations respectively. The largest average deterioration occurred on the *external conflicts fought* indicator, followed by *perceptions of criminality* and *internal conflicts fought*. Although the number of countries suffering from internal conflicts increased, the number of deaths decreased due to a lower level of intensity in conflicts in Syria, Ukraine and Nigeria.

FIGURE 1.1

Year-on-year change in GPI score by domain, 2019

Militarisation had the largest improvement of any domain in the GPI.



Source: IEP

FIGURE 1.2

Change in score by indicator, 2019 GPI

Despite a fall in deaths from conflict, the total number of conflicts increased.



“

In the 2019 GPI, 86 countries improved while 76 countries deteriorated, with the global average GPI score improving by -0.09 per cent.

”

FIVE MOST & LEAST PEACEFUL COUNTRIES BY DOMAIN

TABLE 1.1

Safety and Security domain

Rank	Country	2018 Score	Score change	Rank change
1	Iceland	1.131	-0.037	↔
2	Singapore	1.233	-0.063	↑ 3
3	Norway	1.243	-0.001	↓ 1
4	Switzerland	1.274	-0.07	↑ 3
5	Japan	1.276	-0.019	↓ 1

Rank	Country	2018 Score	Score change	Rank change
163	Afghanistan	4.198	-0.024	↔
162	South Sudan	4.09	-0.004	↓ 1
161	Central African Republic	4.061	-0.003	↓ 1
160	Iraq	4.05	-0.084	↑ 2
159	Congo, DRC	3.98	0.031	↓ 1

TABLE 1.2

Ongoing Conflict domain

Rank	Country	2018 Score	Score change	Rank change
1	Botswana	1	0	↔
1	Chile	1	0	↔
1	Mauritius	1	0	↔
1	Uruguay	1	0	↔
5	Singapore	1.012	-0.012	↑ 1

Rank	Country	2018 Score	Score change	Rank change
163	Syria	3.828	0	↔
162	Afghanistan	3.674	0.078	↓ 1
161	Yemen	3.67	0.247	↓ 3
160	South Sudan	3.6	0.017	↔
159	Pakistan	3.594	-0.08	↑ 3

TABLE 1.3

Militarisation domain

Rank	Country	2018 Score	Score change	Rank change
1	Iceland	1.032	-0.016	↔
2	Hungary	1.151	0.007	↔
3	Slovenia	1.179	-0.078	↑ 1
4	New Zealand	1.186	-0.013	↓ 1
5	Moldova	1.241	-0.065	↔

Rank	Country	2018 Score	Score change	Rank change
163	Israel	3.88	-0.03	↔
162	Russia	3.252	-0.055	↔
161	United States of America	3.073	0.024	↓ 1
160	North Korea	3.057	-0.118	↑ 1
159	France	2.766	0.006	↓ 2



Regional Overview

Four of the nine regions in the world improved in peacefulness in 2019: Russia and Eurasia, Asia-Pacific, Europe, and MENA. Russia and Eurasia, Asia-Pacific, and MENA recorded improvements across all three GPI domains.

Europe maintained its position as the most peaceful region in the world, which it has held for every year of the GPI. MENA remained the least peaceful region for the fifth year in a row, although it did become more peaceful last year.

Europe was the only one of the four improving regions that did not improve in every domain of the GPI. Progress in Europe was driven by improvements in *Safety and Security* and reductions in *Militarisation*, but *Ongoing Conflict* deteriorated.

Central America and the Caribbean had the largest deterioration, especially in *Safety and Security* due to widespread crime and political instability.

North America closely followed, with the second largest deterioration, and while it was once again the second most peaceful region, it continued to deteriorate owing to the worsening of a number of indicators in the US. Peacefulness in the US has deteriorated each year since 2016. South America also faced challenges, deteriorating in *Safety and Security*, especially in Venezuela, and in *Ongoing Conflict*, because of political polarisation and escalating drug trade related armed conflicts in Brazil.

Sub-Saharan Africa recorded a slight deterioration overall, but as a large region, had mixed results across countries, indicators and domains.

ASIA-PACIFIC

Peacefulness in Asia-Pacific improved in all three GPI domains last year, largely due to increases in *UN peacekeeping funding* and reductions in *violent demonstrations* and *deaths from internal conflict*. However, the *impact of terrorism* continued to worsen, as did *internal conflicts fought* and *external conflicts fought*.

Thirteen of the region's 19 countries improved in 2019, while six deteriorated. Five Asia-Pacific countries ranked in the top 25 globally, with New Zealand placing first in the region and second overall in the 2019 GPI.

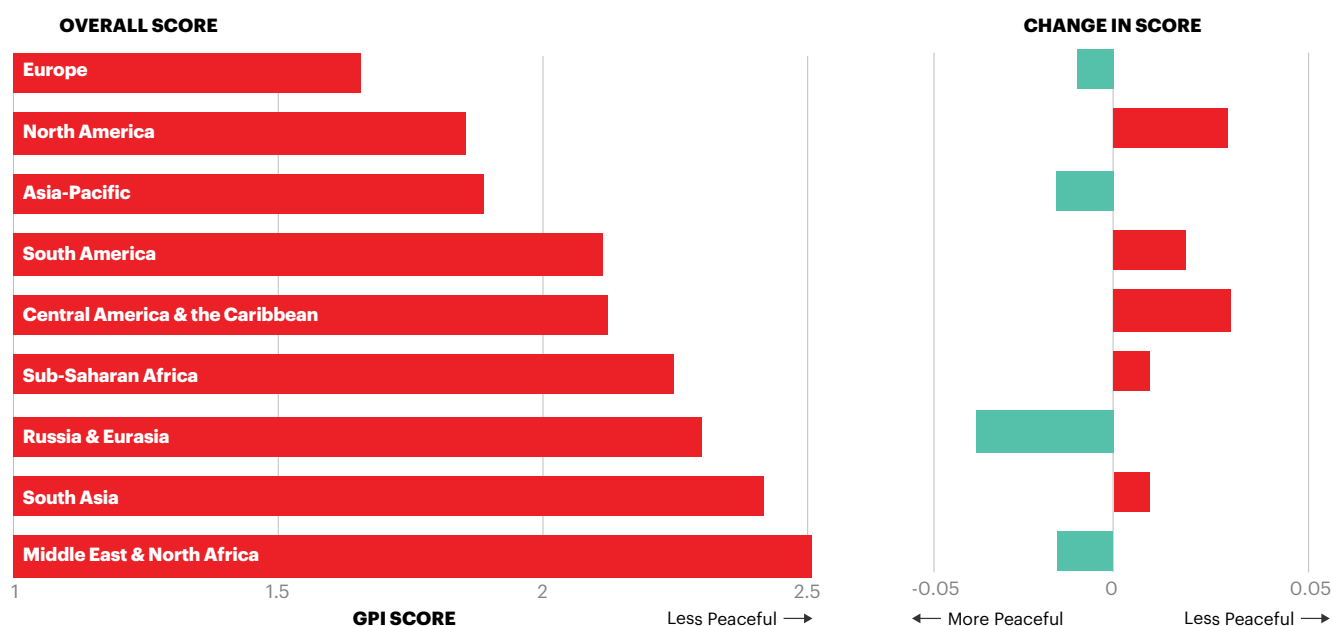
North Korea was the only Asia-Pacific country to place in the bottom 25 of the GPI. North Korea's score for nuclear and heavy weapons capabilities remains at five – the lowest score possible – despite more than a year of denuclearisation negotiations with South Korea and the US. The negotiations have proceeded in fits and starts, but with little tangible progress at the time of writing.

China improved based on reductions in *Ongoing Conflict* and *Militarisation*. The country increased its *UN peacekeeping funding* and reduced its *weapons exports* and *military expenditure* (% GDP). However, China's score for *Safety and Security* deteriorated due to a rise in the *incarceration rate*. Approximately one million Uighur Muslims are thought to be detained in internment camps in Xinjiang province.

FIGURE 1.3

Regional GPI results, 2019

Although it remains the world's least peaceful region, MENA became more peaceful over the past year.



Source: IEP

TABLE 1.4

Asia-Pacific

Regional Rank	Country	Overall Score	Score change	Overall Rank
1	New Zealand	1.221	0.033	2
2	Singapore	1.347	-0.035	7
3	Japan	1.369	-0.012	9
4	Australia	1.419	0.021	13
5	Malaysia	1.529	-0.087	16
6	Taiwan	1.725	-0.012	36
7	Indonesia	1.785	-0.069	41
8	Mongolia	1.792	-0.015	42
9	Laos	1.801	-0.017	45
10	Timor-Leste	1.805	-0.093	48
11	South Korea	1.867	0.05	55
12	Vietnam	1.877	-0.034	57
13	Cambodia	2.066	-0.035	89
14	Papua New Guinea	2.118	0.018	98
15	China	2.217	-0.03	110
16	Thailand	2.278	0.012	117
17	Myanmar	2.393	0.065	125
18	Philippines	2.516	-0.007	134
19	North Korea	2.921	-0.029	149
REGIONAL AVERAGE		1.897	-0.015	

Myanmar had the largest deterioration in the region, principally in *Ongoing Conflict*. While deaths from internal conflicts declined, the number and intensity of ongoing internal armed conflicts escalated last year. Insurgencies and armed conflicts continue throughout the country, despite the 2015 Nationwide Ceasefire Agreement. The Burmese military signed an additional agreement in December 2018 with a wider set of armed groups in order to encourage effective peace talks. The 2018 agreement is set to expire on 30 April. As of 3rd April 2019, the peace talks had yet to be successfully concluded.

New Zealand and Australia, which rank second and 13th in the 2019 GPI, both deteriorated slightly in their overall score last year. Australia fell one place in the index due to an increase in *Militarisation*, namely *weapons imports*, *military expenditure* (% GDP), and *nuclear and heavy weapons*. The *incarceration rate* in Australia also rose. New Zealand maintained or improved its scores in 22 out of 23 indicators, but deteriorated in the *impact of terrorism* because of the 15 March 2019 white-nationalist terror attack on two mosques in Christchurch, in which 50 people were killed. Improvements in five other indicators across all three domains helped New Zealand maintain its rank as the second most peaceful country in the world.

CENTRAL AMERICA & THE CARIBBEAN

Central America and the Caribbean deteriorated in all three domains of peacefulness last year. Seven countries improved while five deteriorated, but as is typical of breakdowns in peacefulness, the deteriorations were larger than the improvements.

Civil unrest, violent crime and border disputes characterised the last year in the region. Protestors have called for the resignation of

presidents in both Nicaragua and Honduras. Refugees fleeing violence in the region have congregated on Mexico's southern border with Guatemala, seeking access to Mexico and the United States.

On average, the region deteriorated because of higher levels of *Militarisation* and lower levels of *Safety and Security*. *Military spending* (% GDP) rose, while *UN peacekeeping funding* fell. The *incarceration rate* increased in five countries, compared to three where it declined. *Political instability* also deteriorated, especially in Nicaragua, Panama and Honduras and although it improved in five other countries, the size of the deteriorations out-weighted the improvements.

On the upside, the *impact of terrorism* indicator improved last year, with scores improving in seven countries and deteriorating in only two. The average score for the *homicide rate*, for which the region ranks worst in the world, improved based on reductions in four countries. However, Mexico, the region's major economy, recorded its highest *homicide rate* in 21 years in 2018. Reductions in *political terror* in Costa Rica, Haiti and Jamaica yielded a net benefit for the region, despite the year's tumultuous politics. Costa Rica achieved the most peaceful score possible on this indicator in 2019. However, the situation deteriorated in Honduras, Guatemala and Cuba.

Nicaragua had the largest deterioration in the 2019 GPI after backsliding on nine indicators, including *violent crime*, *incarceration*, *political instability*, and *intensity of internal conflict*, resulting in a fall of 53 places. Peaceful protests against social security reforms were met with police violence in April of 2018, and conflict between the government and opposition escalated over the following year. At least 325 people have been killed and protestors have called for the resignation of former Sandinista leader President Daniel Ortega, who has held the office since 2006. Economic collapse in Venezuela has drastically diminished aid to Nicaragua, forcing cuts to government benefits and eroding political and economic stability.

Guatemala and Honduras also experienced escalations in *political terror* and instability. Guatemalan president Jimmy Morales, who has been investigated for corruption by the UN-backed International Committee against Impunity in Guatemala (CICIG), has targeted and sought to close down the same body. Protestors and riot police

TABLE 1.5

Central America & The Caribbean

Regional Rank	Country	Overall Score	Score change	Overall Rank
1	Costa Rica	1.706	-0.06	33
2	Panama	1.804	-0.02	47
3	Jamaica	2.038	-0.041	83
4	Dominican Republic	2.041	-0.032	84
5	Haiti	2.052	-0.002	87
6	Cuba	2.073	0.027	91
7	Trinidad and Tobago	2.094	0.041	93
7	El Salvador	2.262	-0.01	113
9	Guatemala	2.264	0.054	114
10	Nicaragua	2.312	0.377	120
11	Honduras	2.341	0.065	123
12	Mexico	2.6	-0.04	140
REGIONAL AVERAGE		2.132	0.030	

clashed in Honduras in January of 2019, as unrest continued a year on from the re-election of President Juan Orlando Hernández. The opposition, including former president Manuel Zelaya who was removed in a coup in 2009, have accused Hernández of election fraud. Hondurans who have fled the country report arbitrary searches and seizures by military police entering the homes of political activists, although the military denies such activities. Gang violence, violence against journalists and censorship of media remain an ongoing problem in the country.

EUROPE

The world's most peaceful region became slightly more peaceful, on average, in 2018. Twenty-two of 36 countries in Europe improved. Europe continues to dominate the top of the index, accounting for 17 of the 25 most peaceful countries. Only Turkey, at 152, is ranked amongst the 50 least peaceful countries.

Most aspects of the *Safety and Security* domain improved, especially *political terror* and the *impact of terrorism*. Most countries in Europe, apart from Turkey, register low levels *political terror*, which includes political imprisonment, disappearances and torture. Scores worsened for this indicator in only four countries, while nine improved.

Twenty-four countries had a reduction in *terrorism impact* in 2019, chief among them Cyprus, Bosnia and Herzegovina, Greece, Spain, Denmark and Turkey. Turkey has the worst terrorism score in the region. Only eight countries recorded increases in terrorism, including the Netherlands, Latvia, Poland, Norway and Serbia.

Population displacements in Europe also declined. The most notable improvement in the *number of refugees and internally displaced people (IDPs) as a percentage of the population* occurred in Cyprus, which improved from 23 to 18 per cent. There was a slight decline in the percentage of Turks displaced last year, although Turkey remains a major recipient country for asylum-seekers, particularly from the Middle East and North Africa. Serbia and Kosovo also registered declines, although precise numbers vary depending on the data source.

There were mixed results for international relations in the region last year. In terms of *relations with neighbouring countries*, while the newly named North Macedonia began the NATO ascension process in early 2019, the UK continues to struggle with its plan for exiting the European Union. Nineteen European countries had deteriorating scores for the *number, duration and role in external conflicts* and Turkey recorded an increase in fatalities from these conflicts. Conversely, Romania, Germany and the UK registered declines in *deaths from external conflict*.

MIDDLE EAST & NORTH AFRICA

Peace in the world's least peaceful region improved marginally last year, based on improvements in 11 countries. Syria is no longer the world's least peaceful country, and recovery has started to materialise in Iraq. The regional average improved in all three GPI domains in 2019, with reductions in *population displacement*, *political terror*, *terrorism*, *deaths from internal and external armed conflicts*, *military spending*, and *armed services personnel*.

The 2019 GPI measurement year ended strongly with the military defeat of ISIL. Coalition forces retook the town of al-Baghuz Fawqani in Syria on 23 March 2019, after six weeks of fighting, officially recapturing all territory held by ISIL after five years of

war. Roughly 900 ISIL fighters will face trial in Iraq in the coming months and sporadic confrontations continue in Syria.

Consolidating the conditions for peace in the region will prove critical to preventing the reorganisation and resurgence of ISIL, but at the time of writing, at least one front in the complicated Syrian civil war had been formally closed.

TABLE 1.6

Europe

Regional Rank	Country	Overall Score	Score change	Overall Rank
1	Iceland	1.072	-0.024	1
2	Portugal	1.274	-0.041	3
3	Austria	1.291	0.018	4
4	Denmark	1.316	0.003	5
5	Slovenia	1.355	-0.035	8
6	Czech Republic	1.375	-0.004	10
7	Switzerland	1.383	-0.02	11
8	Ireland	1.39	-0.004	12
9	Finland	1.488	-0.017	14
10	Netherlands	1.53	0.002	17
11	Belgium	1.533	-0.005	18
11	Sweden	1.533	0.026	18
13	Norway	1.536	0.021	20
14	Hungary	1.54	-0.002	21
15	Germany	1.547	0.02	22
16	Slovakia	1.55	-0.014	23
17	Romania	1.606	0.014	25
18	Bulgaria	1.607	-0.025	26
19	Croatia	1.645	0.006	28
20	Poland	1.654	-0.074	29
21	Spain	1.699	0.023	32
22	Latvia	1.718	0.039	35
23	Estonia	1.727	-0.005	37
24	Lithuania	1.728	-0.021	38
25	Italy	1.754	-0.018	39
26	United Kingdom	1.801	-0.03	45
27	Serbia	1.812	-0.042	50
28	Albania	1.821	-0.022	51
29	France	1.892	0.005	60
30	Cyprus	1.914	0.007	63
31	Greece	1.933	-0.095	65
31	North Macedonia	1.933	-0.127	65
33	Montenegro	1.939	0.047	67
34	Bosnia and Herzegovina	2.019	-0.044	81
35	Kosovo	2.049	-0.031	86
36	Turkey	3.015	0.106	152
REGIONAL AVERAGE		1.666	-0.01	

Sudan recorded the largest improvement in the region, and second largest in the 2019 GPI overall, based on improvements in many indicators. Sudanese citizens ended the GPI year (March 2018 to March 2019) with four months of protests that were sparked by rising food prices and culminated in calls for the resignation of President Omar al-Bashir, who was eventually removed from power by the military on 11 April. While military leaders initially announced a two-year transition to civilian rule, protestors maintained a sit-in in the capital and General Ibn Auf, head of the military council, relinquished his leadership. At the time of writing, the transition was expected to proceed more swiftly in order to quell the unrest and restart the economy.

Egypt made the next largest improvement based on gains in all three GPI domains. The *intensity of internal conflict* and *deaths from internal conflict* both improved significantly, with the latter falling by half. However, the number and duration of both internal and external armed conflicts worsened. The *likelihood of violent demonstrations* abated, as did the *impact of terrorism*, and *political stability* also improved. However, *political terror* increased in the country. The country increased its *UN peacekeeping funding* and reduced its *military expenditure (% GDP)* and *nuclear and heavy weapons capabilities*. But weapons trading increased, with deteriorations in the scores for both *weapons imports* and *weapons exports*.

Qatar made the next largest improvement based on reductions in *political terror*, the *homicide rate*, the *intensity of internal conflict*, and the *impact of terrorism*. However, scores for *political instability* and *likelihood of violent demonstrations* deteriorated because of the ongoing international boycott against the country. Economic strains can increase the risk of unrest by fomenting internal divisions and civil and political unrest.

TABLE 1.7

Middle East & North Africa

Regional Rank	Country	Overall Score	Score change	Overall Rank
1	Qatar	1.696	-0.089	31
2	Kuwait	1.794	-0.037	43
3	United Arab Emirates	1.847	0.031	53
4	Oman	1.953	-0.021	69
5	Jordan	2.012	-0.089	77
6	Tunisia	2.035	0.035	82
7	Morocco	2.07	0.053	90
8	Algeria	2.219	0.031	111
9	Bahrain	2.357	-0.047	124
10	Saudi Arabia	2.409	0.027	129
11	Egypt	2.521	-0.136	136
12	Iran	2.542	0.123	139
13	Palestine	2.608	-0.011	142
14	Israel	2.735	-0.021	146
15	Lebanon	2.8	0.01	147
16	Sudan	2.995	-0.176	151
17	Libya	3.285	0.002	156
18	Iraq	3.369	-0.067	159
19	Yemen	3.412	0.104	160
20	Syria	3.566	-0.033	162
REGIONAL AVERAGE		2.511	-0.016	

Jordan rose 20 places in the 2019 GPI, based on improvements in all three domains. The country's largest improvement was in neighbouring country relations, based on over two decades of improving foreign relations, especially with regard to trade.

Iraq improved in ten indicators and deteriorated in only four. The *armed services personnel rates* and *refugees and IDPs as a percentage of the population* recorded the largest improvements, and the country's scores for the *Political Terror Scale* also improved substantially. The *impact of terrorism* also subsided.

Iran recorded the largest deterioration in the region. The US withdrawal from the 2015 Iran nuclear agreement has affected *political instability* in the country, while economic pressures have increased the *likelihood of violent demonstrations*. International relations are likely to continue to deteriorate in the wake of the US designating the Iranian Revolutionary Guard a terrorist organisation. Additionally, *Ongoing Conflict* deteriorated in the country last year, while *refugees and IDPs* and the *impact of terrorism* also escalated.

Yemen recorded the second largest deterioration, deteriorating in all three domains last year and falling two places to be the second least peaceful country in the world. Yemen remains the site of the world's worst humanitarian crisis. Over 24 million people, or 80 per cent of the population, are in need of protection and assistance, while aid has been repeatedly blocked. Four years of military stalemate between the Houthi rebels and the Saudi-backed and US armed Yemeni government continued into 2019. A ceasefire in Hodeidah – a major port city that was one of the last access points for aid to more than eight million victims of famine – was negotiated in December of 2018, but neither side had withdrawn its troops by April of 2019.

NORTH AMERICA

Peace in North America deteriorated last year, recording the second largest regional deterioration. Canada showed a small improvement in overall score, but the deterioration in the United States was much larger. While Canada remains one of the ten most peaceful countries in the world, the US fell four places to 128th in the index in 2019. The US has deteriorated every year since 2016.

TABLE 1.8

North America

Regional Rank	Country	Overall Score	Score change	Overall Rank
1	Canada	1.327	-0.011	6
2	United States of America	2.401	0.069	128
REGIONAL AVERAGE		1.864	0.029	

Militarisation improved slightly in the region, based on fewer *weapons imports* into the US and reduced *weapons exports* and *nuclear and heavy weapons capabilities* in Canada. However, the US did increase its *military expenditure (% GDP)* and *armed services personnel rate*, while also reducing *UN peacekeeping funding*.

Safety and Security deteriorated significantly in the region, as it was the only domain to deteriorate overall in both countries. The

impact of terrorism lessened in the US, but increased in Canada. The *homicide rate* rose in both countries, although significantly more in the US. Both countries' *homicide rates* remain below the global average of seven per 100,000, but while the rate in Canada is 1.7, the rate in the US rose 9.7 per cent from 4.9 to 5.4. The country continues to struggle with gun violence, ranking 104 out of 163 for its *homicide rate*.

The regional score for *Ongoing Conflict* deteriorated due to the US's ongoing international military engagements, including its engagement with ISIL. While Canada's score for *external conflicts fought* improved last year, the US's score remains a five out of five.

North America does have the strongest regional score in the world for *relations with neighbouring countries*, which will hopefully hold with the successful implementation of a new regional trade agreement. Known as the United States–Mexico–Canada Agreement in the US and the Canada–United States–Mexico Agreement in Canada, NAFTA's replacement was signed by all three heads of state at the November 2018 G20 summit in Buenos Aires. However, domestic concerns remained in all three countries, and at the time of writing, none of the three legislatures had ratified the agreement, all expressing different issues with the culmination of the two-year trade dispute.

RUSSIA & EURASIA

While most of Russia and Eurasia remains less peaceful than the global average, it was one of three regions to improve in every domain of the GPI last year, resulting in the largest regional improvement. The region performs best in *Militarisation* and had

TABLE 1.9

Russia & Eurasia

Regional Rank	Country	Overall Score	Score change	Overall Rank
1	Kazakhstan	1.932	-0.031	64
2	Moldova	1.951	0.018	68
3	Kyrgyz Republic	2.105	-0.073	95
4	Belarus	2.115	0.003	97
5	Georgia	2.122	0.004	99
6	Uzbekistan	2.166	0.022	102
7	Tajikistan	2.196	-0.083	105
8	Turkmenistan	2.265	-0.018	115
9	Armenia	2.294	-0.008	118
10	Azerbaijan	2.425	-0.022	130
11	Ukraine	2.95	-0.197	150
12	Russia	3.093	-0.07	154
REGIONAL AVERAGE		2.301	-0.038	

the largest improvement in *Ongoing Conflict*, based on improvements in indicators of internal conflict. Eight indicators of *Safety and Security* are better off in 2019, and four are more peaceful than the global average.

Eight of the region's 12 countries improved in overall score, including both Ukraine and Russia. Russia recorded the third

largest improvement in the region, improving in nine indicators and deteriorated in only one: *deaths from external conflict*, due its engagement in Syria.

Ukraine showed the largest improvement in the world in score last year, rising two places to 150. Ukraine had the third largest reduction in *internal conflict deaths* – an 85.7 per cent reduction, or more than 7,800 fewer lives lost. However, *intensity of internal conflict* and *relations with neighbouring countries* remain at five out of five. Significant improvements in *Safety and Security* included reductions in population displacement, *incarceration*, the *impact of terrorism* and especially, *political terror*. These improvements were partially offset by a deterioration in *political instability*, reflecting uncertainty about the 2019 elections. However, at the time of writing, Ukraine's leading candidate, Volodymyr Zelensky, received over 70 per cent of the vote in the Presidential run-off elections. Providing his lack of political experience does not undermine his policymaking, he may be able to improve unity and stability in the country.

SOUTH AMERICA

Only Colombia, Uruguay and Chile improved in South America last year, while the rest of the region deteriorated. Venezuela is now the least peaceful country in South America, and Brazil recorded the fifth largest fall globally, with nine indicators deteriorating and only one improving.

Safety and Security is the chief challenge in the region, which is the only continent free from war – exempting drug wars. The upside for *Safety and Security* were marked reductions in the *homicide rate* in Uruguay, Ecuador, Argentina and Guyana. Venezuela and Colombia also recorded reductions, but they are still amongst the ten highest rates in the world.

The *incarceration rate* rose in nine South American countries, while declining only in Chile. All of South America's *incarceration rates* are in the bottom half of the index. And the *impact of terrorism* escalated in six countries: Colombia, Brazil, Peru, Venezuela, Ecuador and most especially Bolivia.

Population displacement and *political instability* escalated significantly in the region, not least because of turmoil in Venezuela. Venezuelan migrants have been fleeing economic collapse, putting pressure on their neighbours, especially post-conflict Colombia. After years of shortages and hyperinflation, President Nicolás Maduro's legitimacy was directly challenged in January of 2019 when head of the National Assembly Juan Guido declared himself president. Despite international support for Guido, Maduro has retained power, with the backing of the military, and at the time of writing, the political crisis remained unresolved.

South America outperforms the global average in *Militarisation* and *Ongoing Conflict*, although the later deteriorated slightly due to violence and political turmoil in Brazil. *Intensity of internal conflict* escalated along with the rhetoric exchanged between President Jair Bolsonaro's right-wing *Partido Social Liberal* and the leftist *Partido dos Trabalhadores*. Meanwhile, conflicts between rival criminal organisations led to intensifying drug-trade related violence. South America's challenge will be to maintain its hard-earned progress, especially in Colombia, while avoiding further deteriorations in Venezuela and Brazil.

TABLE 1.10

South America

Regional Rank	Country	Overall Score	Score change	Overall Rank
1	Chile	1.634	-0.012	27
2	Uruguay	1.711	-0.043	34
3	Ecuador	1.98	0.018	71
4	Argentina	1.989	0.034	75
5	Peru	2.016	0.034	80
6	Bolivia	2.044	0.011	85
7	Paraguay	2.055	0.054	88
8	Guyana	2.075	0.034	92
9	Brazil	2.271	0.112	116
10	Colombia	2.661	-0.068	143
11	Venezuela	2.671	0.028	144
REGIONAL AVERAGE		2.101	0.018	

SOUTH ASIA

The average South Asian score improved last year due to improvements in Nepal, Pakistan, Bhutan and a slight gain in Afghanistan. However, the region still has the second lowest rank, just ahead of its neighbour MENA.

South Asia's regional scores are bolstered by Bhutan, which is now the 15th most peaceful country in the world, after rising two places in 2019. The country improved in four indicators, deteriorated in only two and maintained strong scores in another 15. Only the *police rate* and the *incarceration rate* remain above a score of two.

Very few Bhutanese were displaced, but the country did improve further on the *refugees and IDPs* indicator, as did its regional neighbour Afghanistan. Bhutan and Pakistan were amongst the 25 countries with the largest reductions in the *homicide rate* last year. The region typically outperforms the global average on this indicator. Similarly, South Asia usually has lower levels of *violent crime* than the rest of the world, as the region's challenges are more likely to be political than criminal.

While the regional *impact of terrorism* score showed almost no change in the 2019 index, the Easter attacks in Sri Lanka demonstrate that the region is not unaffected. Nearly 300 churchgoers and tourists were killed in coordinated attacks, credit for which was claimed by ISIL afterward. However, the Easter attack occurred after the cut-off for the 2019 GPI and is not included in this year's index.

South Asia's score for every indicator in *Ongoing Conflict* is less peaceful than the global average, with four out of six deteriorating last year. Only *deaths from internal conflict* improved, with fewer fatalities in Pakistan, Afghanistan and India than the year prior. However, the *number and duration of internal conflicts fought* worsened in Afghanistan and Bangladesh. The score for *internal conflicts fought* had the highest rating at five in both India and Pakistan.

Militarisation increased in the region. *Nuclear and heavy weapons*, *armed services personnel rate*, and *military expenditure (% GDP)* all increased, while contributions to *UN peacekeeping funding* declined.

TABLE 1.11

South Asia

Regional Rank	Country	Overall Score	Score change	Overall Rank
1	Bhutan	1.506	-0.015	15
2	Sri Lanka	1.986	0.022	72
3	Nepal	2.003	-0.057	76
4	Bangladesh	2.128	0.05	101
5	India	2.605	0.088	141
6	Pakistan	3.072	-0.022	153
7	Afghanistan	3.574	-0.002	163
REGIONAL AVERAGE		2.411	0.009	

SUB-SAHARAN AFRICA

Results in sub-Saharan Africa were mixed last year across both indicators and countries. Twenty-seven of the region's 44 countries deteriorated in peacefulness, leading to a weakening of all three domains of the GPI, while 12 of the region's 23 indicators improved and eight deteriorated.

The region's five largest country improvements were in Rwanda, The Gambia, Djibouti, Eswatini and Somalia. An improvement in *internal conflicts fought* boosted Somalia by one place in the 2019 GPI to rank 158, lifting it out of the five least peaceful countries in the world. The five worst deteriorations occurred in Burkina Faso, Zimbabwe, Togo, Sierra Leone and Namibia.

Militarisation was the region's most peaceful domain, and the only one in which it outperforms the global average, although it deteriorated slightly last year because of reductions in *UN peacekeeping funding* and increases in *nuclear and heavy weapons* and the *armed services personnel rate*. On average, *military expenditure (% GDP)* and *weapons imports* improved.

Ongoing Conflict deteriorated on average in the region, based on deteriorations in 25 countries. Burkina Faso, Zimbabwe, Cameroon, Mali and Central African Republic had the worst escalations. Civil unrest flared in Zimbabwe at the start of the year, while 14 provinces in Burkina Faso are now under a state of emergency due to a growing number of militant attacks, including those bordering Mali. Promisingly, however, six armed groups in Central African Republic signed a peace agreement on 9 April, intending to put an end to more than six years of armed conflict in the country.

Improvements in *Ongoing Conflict* scores were recorded in five sub-Saharan African countries. In Ethiopia, *deaths from internal conflict* and *internal conflicts fought* improved even while *external conflicts fought* escalated. Eritrea saw its standing improve based on better *relations with neighbouring countries*: in the wake of the peace deal signed with Ethiopia and improved relations with the wider international community, the UN has lifted sanctions, including an arms embargo. However, tensions between the two countries remain.

Intensity of internal conflict improved significantly in The Gambia last year, reflecting the fact that there have been no instances of ethnic violence, which had been common in the past. A new President, Adama Barrow, was elected in 2016.

TABLE 1.12

Sub-Saharan Africa

Regional Rank	Country	Overall Score	Score change	Overall Rank
1	Mauritius	1.562	0.032	24
2	Botswana	1.676	-0.006	30
3	Malawi	1.779	-0.035	40
4	Ghana	1.796	0.024	44
5	Zambia	1.805	-0.016	48
6	Sierra Leone	1.822	0.085	52
7	Tanzania	1.86	0.02	54
8	Madagascar	1.867	0.007	55
9	Senegal	1.883	0.033	58
10	Liberia	1.889	-0.044	59
11	Namibia	1.892	0.085	60
12	The Gambia	1.908	-0.079	62
13	Equatorial Guinea	1.957	0.023	70
14	Benin	1.986	0.011	72
14	Eswatini	1.986	-0.054	72
16	Angola	2.012	-0.019	77
17	Rwanda	2.014	-0.125	79
18	Mozambique	2.099	0.048	94
19	Gabon	2.112	0.016	96
20	Guinea	2.125	0.019	100
21	Lesotho	2.167	0.023	103
22	Burkina Faso	2.176	0.153	104
23	Uganda	2.196	0.02	105
24	Cote d' Ivoire	2.203	-0.01	107
25	Togo	2.205	0.102	108
26	Djibouti	2.207	-0.058	109
27	Guinea-Bissau	2.237	-0.043	112
28	Kenya	2.3	0	119
29	Republic of the Congo	2.323	-0.003	121
30	Mauritania	2.333	-0.02	122
31	Niger	2.394	-0.05	126
32	South Africa	2.399	0.064	127
33	Ethiopia	2.434	0.008	131
34	Zimbabwe	2.463	0.123	132
35	Eritrea	2.504	-0.025	133
36	Burundi	2.52	0.018	135
37	Chad	2.522	0.026	137
38	Cameroon	2.538	0.065	138
39	Mali	2.71	0.025	145
40	Nigeria	2.898	0.015	148
41	Democratic Republic of the Congo	3.218	-0.031	155
42	Central African Republic	3.296	0.02	157
43	Somalia	3.3	-0.05	158
44	South Sudan	3.526	0.001	161
REGIONAL AVERAGE		2.252	0.009	

Nigeria's improvement was based on a reduction in *deaths from internal conflict*. However, *external conflicts fought* escalated because of the government's engagements in Mali and Somalia.

Rwanda continued to improve, with the *number and duration of internal conflicts* declining.

Safety and Security was sub-Saharan Africa's least peaceful domain and recorded the largest deterioration last year. While 18 countries improved, 24 deteriorated. The *likelihood of violent demonstrations* deteriorated most significantly, followed by the *impact of terrorism*. The *incarceration rate* rose on average last year, as did the *homicide rate* and *perceptions of criminality*. However, the expert assessment of the *level of violent crime*, improved on average.

Improvements in the political foundations for peace may be the most promising development in the region. The *Political Terror Scale* improved overall based on reductions in state-based violence in 14 countries. Similarly, nine countries improved in *political instability*, compared to seven deteriorations, with The Gambia, Angola and Ghana making the most substantial gains.

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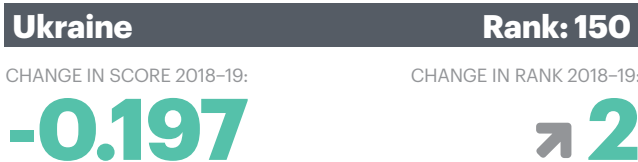
Twenty-seven of the region's 44 countries deteriorated in peacefulness, leading to a weakening of all three domains of the GPI, while 12 of the region's 23 indicators improved and eight deteriorated.



Improvements & Deteriorations



FIVE LARGEST IMPROVEMENTS IN PEACE



Ukraine recorded the largest improvement in peace in the 2019 GPI, with an overall score improvement 0.197, or 6.25 per cent, and rose two places. Most notably, *Ongoing Conflict* improved for the first time since 2011, by 9.9 per cent. Despite these improvements, Ukraine still ranks amongst the 20 least peaceful countries in the world.

Four indicators improved on the *Safety and Security* domain, notably *political terror* and *terrorism impact*. The impact of terrorism in Ukraine declined five per cent last year, and Ukraine's score on the *Political Terror Scale* improved for the first time since 2015.

For the *Ongoing Conflict* domain, the largest improvement occurred for the *deaths from internal conflict* indicator, owing to a decline in the intensity of the war in the Donbas region that began in 2014. At the time of writing, the most recent of several ceasefires was in place between the Ukrainian government and Russian-backed separatist forces.

While Ukraine's overall score improved substantially, there were some notable deteriorations. The *political instability* indicator deteriorated by seven per cent last year due to uncertainty ahead of the 2019 presidential election. However, the election appears to have proceeded smoothly, paving the way for future improvement in this indicator.



Sudan recorded the second largest improvement of 0.176, improving by 5.6 per cent in score and rising three places to 151 on the GPI. Improvements were recorded in all three domains. However, Sudan remains amongst the world's least peaceful countries, and has been one of the twenty least peaceful countries in the world every year since 2008.

The country's most notable improvements in peace were recorded in the *violent crime* and *political terror* indicators. *Violent crime*, while still remaining an issue in Darfur and other areas of the country, improved in the capital Khartoum. Crime in Khartoum and other cities tends to involve non-violent petty theft rather than more serious incidents and is generally low by regional

standards. The *political terror* indicator also improved, yet it still remains high. Numerous political protests were held across the country against ex-President Omar al-Bashir in 2018. While protesters were arrested, they were subsequently released after widespread domestic and international condemnation.¹ This is a change from prior policy, where political prisoners were held for prolonged periods of time.

The *Ongoing Conflict* domain recorded its first notable improvement since 2013, with the score improving by 2.4 per cent. This is due to a large reduction in *deaths from internal conflict*, with the total number of deaths falling by just under 45 per cent.

While 17 indicators did improve, Sudan still scores four or more in seven indicators, including *access to small arms*, *neighbouring countries relations*, and *intensity of internal conflict*. This indicates that the relative level of peace is still low and that there is much room for further improvement.

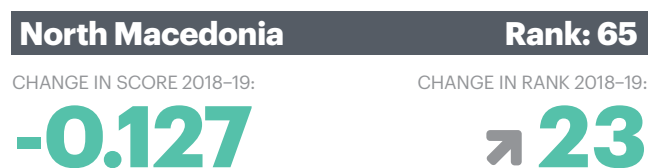


Egypt recorded its first year of improvement since 2015, with an overall score change of 0.136, rising seven places. All three domain scores improved, most notably *Ongoing Conflict*, which also improved for the first time since 2015. However, the country as a whole remains significantly less peaceful than it was prior to the events of the Arab Spring in 2011.

The improvement in the *Ongoing Conflict* domain was due to reductions in the *intensity of internal conflict* and *deaths from internal conflict*. Both improvements were driven by increased security efforts from 2017 to 2018. In late 2017, President Abdel Fatah el-Sisi replaced the military chief of Staff, and in February 2018, adopted a massive security campaign. The operation involved 60,000 troops and 52,000 police officers, and is the most comprehensive effort to date to deal with the threat from jihadis in the remote areas of Egypt.

Safety and Security is the only domain to have shown consistent improvements in peace over the last five years, with a 17 per cent improvement since 2014. *Political stability* improved over the past year. The incumbent president, el-Sisi, won a second four-year term in May of 2018 in a tightly controlled electoral process. El-Sisi retains strong command of internal security matters and is unlikely to be removed from power in a similar fashion to his predecessors.

However, due to el-Sisi's consolidation of power and control over opposition, *political terror* increased from a score of four to 4.5 in 2019. Egypt still ranks in the bottom quadrant of the GPI, at 136.



North Macedonia recorded a third year of consecutive overall score improvements, with a score change of 0.127 in 2019. This resulted in the country rising 23 ranks in the GPI to 65th, its highest rank since the inception of the index. The overall change in score was largely driven by an 11.6 per cent improvement in the *Ongoing Conflict* domain. The major positive change resulted from improvements in *relations with neighbouring countries*, which improved by 33.3 per cent. The current government, led by the Social Democratic Alliance of Macedonia, has improved relations with the EU and, in particular, with Bulgaria and Greece. In January 2019, the Macedonian and Greek parliaments approved the Prespa agreement. Through this, Macedonia changed its name to the Republic of North Macedonia in exchange for Greece ending its veto on Macedonia's EU and NATO accession.

The *Safety and Security* domain had an improvement of 4.3 per cent in the past year. *Violent Crime* improved from 2.5 to 2.0, while, the *political instability* indicator improved by eight per cent in the wake of successful 2016 and 2017 elections. However, risks remain, driven by perceived ethnic tensions and political disputes, including the change to the country's name, which resurfaced as contentious issue in the 2019 presidential election.

Despite overall improvements, in the past year, the *military expenditure* and *refugees and IDPs* indicators deteriorated, by one per cent each. North Macedonia recorded no change in some of its lowest performing indicators, such as *perceptions of criminality* and *access to small arms*.

Rwanda

Rank: 79

CHANGE IN SCORE 2018–19:

-0.125

CHANGE IN RANK 2018–19:

↗ 24

Rwanda had the fifth largest improvement in peace and moved up 24 places in the rankings, with a score change of 0.125. Rwanda's GPI score has improved for four of the past five years, and this past year marks the most peaceful year for the country since 2009. Its improvement was driven by positive changes in all three domains, with the greatest improvement in *Militarisation*.

The single largest improvement was registered on the *violent crime* indicator. Official statistics indicate an improvement in the crime rate in Kigali. Nonetheless, crime in regions bordering the Democratic Republic of the Congo, where anti-Rwandan militias carry out sporadic violent attacks, is likely to remain high.

Despite improvements on multiple indicators of *Safety and Security*, Rwanda continues to suffer from some political repression, most evident through the crackdown on opposition leaders after the 2017 presidential campaign and the arrest of Diane Rwigara, the only candidate who ran against incumbent Kagame.² However, the acquittal of Rwigara and the release of another opposition leader in late 2018 serve as examples of positive steps towards political tolerance, reflected in the country's improving *political terror* indicator.³

Rwanda's improvement in *Ongoing Conflict* was driven by the decrease in the number and duration of *internal conflicts fought*, which improved by 18.5 per cent. The latest available data records just two episodes of armed conflict over the last decade. The biggest improvement in *Militarisation* was in *UN peacekeeping funding*, which improved by 41.8 per cent last year.

FIVE LARGEST DETERIORATIONS IN PEACE

Nicaragua

Rank: 120

CHANGE IN SCORE 2018–19:

0.377

CHANGE IN RANK 2018–19:

↘ 54

Nicaragua recorded the largest deterioration in peacefulness in the 2019 GPI, with the overall score deteriorating by 0.377, falling 54 places in the GPI rankings. A minor improvement in *Militarisation* of less than one per cent slightly offset the deteriorations in *Ongoing Conflict* and *Safety and Security* of 43 and 16.8 per cent respectively.

Nicaragua's decline in peacefulness was sparked by an ongoing political crisis that began in April of 2018, when protests against a pension system reform were violently suppressed by state security forces and para-police, driving up *political instability* and the *intensity of internal conflict*. The protest movement expanded into broader demonstrations against Daniel Ortega's presidency and demands for far-reaching political reforms, including early elections.

An increasing presence of government-aligned para-police and paramilitary forces has developed since the onset of the political crisis. Pro-government forces have continued to violently suppress demonstrations, resulting in over 325 deaths and more than 700 people taken as political prisoners. This has driven negative *perceptions of criminality* from *high* to *very high*.

Relations with neighbouring countries also deteriorated last year. The international community has criticised the government's repressive response to the crisis, while the US has imposed sanctions on Nicaraguans accused of committing human rights abuses or acts of corruption.

Burkina Faso

Rank: 104

CHANGE IN SCORE 2018–19:

0.153

CHANGE IN RANK 2018–19:

↘ 26

Burkina Faso had the second largest deterioration in peacefulness, falling from 78th to 104th in the rankings. Peacefulness has declined steadily in the country since 2011. Its 2019 score deteriorated by 0.153 or 7.6 per cent compared to the previous year, reflecting deteriorations in all three domains, with the largest fall in *Ongoing Conflict*.

Burkina Faso deteriorated on ten of the 23 GPI indicators in the past year. The three largest indicator deteriorations were in *intensity of internal conflict*, *perceptions of criminality* and *terrorism impact*. Increasing numbers of militant attacks have occurred across an expanding geographic area, and in particular a terrorist attack in late December led to the declaration of a state of

emergency on December 31st. Inter-communal violence and terrorist attacks, due mainly to ethnic rivalries and religious differences, have continued into 2019, with hundreds of civilian deaths since November.⁴

The growth and spread of vigilante groups to tackle local crime and insecurity reveals a growing degree of mistrust in state institutions. The country had a rise in the number of *refugees and IDPs*, with over 10,000 refugees fleeing the country and more than 16,000 internally displaced people as of mid-2018.⁵

Zimbabwe Rank: 132

CHANGE IN SCORE 2018–19:

0.123

CHANGE IN RANK 2018–19:

6

Zimbabwe's overall score deteriorated by 5.3 per cent in 2019, marking the fourth successive year of deteriorations in peacefulness. Zimbabwe fell six places to 132nd. The country deteriorated in all three domains, most especially in the *Ongoing Conflict* domain.

Political instability and *violent demonstrations* deteriorated in 2019, following widespread strikes and protests in response to the sharp rise in fuel prices. The government's response was swift with many arrests and widespread reports of military violence against civilians. This was reflected in a worsening score for *intensity of internal conflict*. Several leaders of the protests and roughly 600 participants were arrested, many of whom were released shortly afterwards.

The *violent crime* score also deteriorated in the wake of the crisis. Crime, most of it opportunistic, has long been an issue in Zimbabwe. Reflecting the increase in economic challenges facing the country, crime levels have increased: the US State Department calculates that overall crime increased ten to 15 per cent across most sectors in 2016. Terrorism has also increased, with the *terrorism impact* score deteriorating 33 per cent over the past year. Two people were killed and at least 47 injured in the June 2018 Bulawayo grenade attack targeting President Emmerson Mnangagwa.

Zimbabwe has registered a slight improvement in the *refugees and IDPs* indicator, with now less than one per cent of the population displaced, down from nearly eight per cent in 2010. The country also improved its score for *nuclear and heavy weapons capabilities*, offsetting some of the deterioration in the *Militarisation* domain from rising *military expenditure* (% GDP).

Iran Rank: 139

CHANGE IN SCORE 2018–19:

0.123

CHANGE IN RANK 2018–19:

9

Iran fell in peacefulness for the second year in a row, with its score deteriorating by 5.1 per cent. The *Safety and Security* and *Ongoing Conflict* domains deteriorated by eight and 4.6 per cent respectively, largely attributable to increased internal turmoil and involvement in external conflicts.

Four indicators on the *Safety and Security* domain deteriorated over the past year. The greatest deterioration was in the *likelihood of violent demonstrations*, which increased from a score of two to 3.5, reflecting sporadic protests in 2018 in response to inflation, currency depreciation, and corruption.

Relatedly, *political instability* has also deteriorated. In 2018, the US withdrew from the 2015 nuclear deal and has subsequently re-imposed sanctions on Iran. The International Monetary Fund has forecast an economic contraction in 2019 as a result. International economic and diplomatic pressures combined with a crackdown on protesters in December of 2018 and January of 2019 have lowered confidence in the current government.

In terms of external conflict, Iran deteriorated most significantly in *external conflicts fought* due to its continued engagement in the civil wars in Syria. The country is also believed to support fighters in Yemen and Iraq. Its involvement in these proxy wars has resulted in growing tensions with the United States, Saudi Arabia and Israel.⁶ These wars have also contributed to an increase in *military expenditure*, which rose from 3.75 to 4.56 per cent of GDP in the past year.

Brazil Rank: 116

CHANGE IN SCORE 2018–19:

0.112

CHANGE IN RANK 2018–19:

10

Brazil had an overall score deterioration of 0.112, or 5.2 per cent, in 2019, resulting in a fall of ten places in the rankings, from 106 to 116. While all three domains deteriorated in 2019, the deterioration in overall score was largely due to a 24.7 per cent deterioration in *Ongoing Conflict*.

While Brazil's *Ongoing Conflict* score still remains relatively peaceful, there was a notable deterioration on the *internal conflicts fought* indicator due to renewed violence between organised crime groups in the last three years. A truce between the country's dominant criminal organisations broke down in late 2016, leading to renewed fighting and roughly 250 fatalities in the year following. Several groups in the northern state of Ceará renewed their truce with each other in early 2019, in order to unite in attacks against security forces and public infrastructure.

The *intensity of internal conflict* also deteriorated in 2019. The October 2018 general elections were characterised by a high degree of polarisation between the leftist Workers' Party (Partido dos Trabalhadores) and its supporters and the victorious right-wing candidate of the Partido Social Liberal, Jair Bolsonaro. Political polarisation has continued into 2019 and is likely to increase throughout the year. The implementation of President Bolsonaro's strict law and order policies, as well as a contentious pension reform bill, could increase tensions throughout the year.

Brazil also had an 11 per cent increase in *terrorism impact*, in part due to attacks on political figures, and a 12.5 per cent deterioration in *violent crime*, with the latter increasing to a score of 4.5. The country's score for the *homicide rate* remained at a five out of five. Brazil has one of the ten highest *homicide rates* in the world, according to the latest available data from the UN Office on Drugs and Crime (UNODC). Given the inadequacies in the security forces, violent crime is expected to remain a serious problem in Rio de Janeiro, São Paulo and other large cities.



TRENDS IN PEACEFULNESS

KEY FINDINGS

- The average level of global peacefulness has deteriorated by 3.78 per cent since 2008. Over that period, 81 countries deteriorated in peacefulness, while 81 improved.
- The average level of country peacefulness has deteriorated for seven of the past ten years.
- The gap between the least and most peaceful countries continues to grow. Since 2008, the 25 least peaceful countries declined in peacefulness on average by 11.8 per cent, while the 25 most peaceful countries improved by 1.7 per cent on average.
- While the deterioration in peacefulness has not been limited to any one region, indicator, or country, conflict in the Middle East has been the key driver of the global deterioration in peacefulness.
- Of the three GPI domains, two recorded a deterioration while one improved. *Ongoing Conflict* deteriorated by 8.7 per cent and *Safety and Security* deteriorated by just over four per cent. However, *Militarisation* improved by 2.6 per cent.
- The improving trend in *Militarisation* was not limited to a single region, with 104 countries improving. 98 countries reduced their *military expenditure as a percentage of GDP*, and 117 had a reduction in their *armed forces personnel rate*.
- The Middle East and North Africa (MENA) remains the world's least peaceful region for the fifth consecutive year. It is less peaceful than the global average for 18 of the 23 GPI indicators.
- Half of the countries in Europe, the world's most peaceful region, have deteriorated in peacefulness since 2008. Iceland is the only Nordic country that is more peaceful now than in 2008.
- The indicator with the most widespread deterioration globally was the *terrorism impact* indicator. Just over 63 per cent of countries recorded increased levels of terrorist activity, with 40.3 per cent of all countries recording a severe deterioration. However, the total number of deaths from terrorism has been falling globally since 2014.
- The *homicide rate* indicator had the greatest improvement, with 118 countries recording improvements since the 2008 GPI. There was also a notable improvement on the *Political Terror Scale* indicator.
- Although deaths from conflict rose 140 per cent between the 2008 and 2019 GPI, they have been declining every year since peaking in 2014. There has been a 26.5 per cent fall in deaths from conflict since their peak, which closely mirrors the drop in deaths from terrorism.

GPI Trends



The world is considerably less peaceful now than it was in 2008, with the average level of country peacefulness deteriorating by 3.78 per cent over the last decade.

Peacefulness has declined year-on-year for seven of the last ten years. Since 2008, 81 countries have become less peaceful, compared to 81 that have improved. Figure 2.1 highlights the overall trend in peacefulness from 2008 to 2019, as well as the year-on-year percentage change in score.

Most of the deterioration in peacefulness over the last decade occurred in the MENA region. If this region was excluded from the analysis, the average level of peace in the world would only have deteriorated by 0.95 per cent. Even within the MENA region, the deterioration in the last decade was concentrated in a handful of countries, most notably Syria, Libya, Yemen, Egypt, and Bahrain. However, although there has been relatively little variation in peacefulness outside of MENA, there are some concerning trends in the more peaceful regions of the world.

“

In Europe, the region that has consistently ranked as the most peaceful since the inception of the GPI index, the *safety and security* and *ongoing conflict* domains have deteriorated since 2008. Most strikingly, over half of the countries in Western Europe and all but one of the Nordic countries are less peaceful now than in 2008. Despite its high level of peacefulness overall, Europe has seen significant deteriorations in *terrorism impact*, *neighbouring country relations*, *violent demonstrations*, and *political instability*.

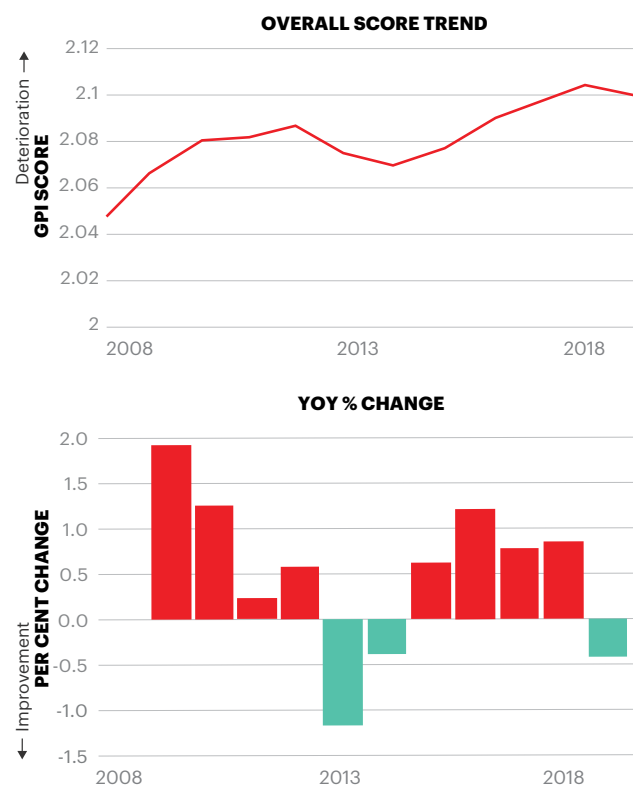
The deterioration in peacefulness around the world has been considerably larger in countries that were already less peaceful to begin with.

The deterioration in peacefulness around the world has been considerably larger in countries that were already less peaceful to begin with, which has led to an increase in the ‘peace gap’ between peaceful and conflict-ridden countries, as shown in Figure 2.2.

FIGURE 2.1

GPI overall trend and year-on-year percentage change, 2008-2019

Peacefulness has declined for eight of the last ten years.



Source: IEP

KEY FINDINGS

DETERIORATED & IMPROVED COUNTRIES SINCE 2008



DETERIORATIONS IN PEACE ARE LARGER THAN IMPROVEMENTS.

11.8% ↑
1.7% ↓

The 25 least peaceful countries deteriorated by 11.8 per cent on average over the last decade.

The 25 most peaceful improved by an average 1.7 per cent over the last decade.

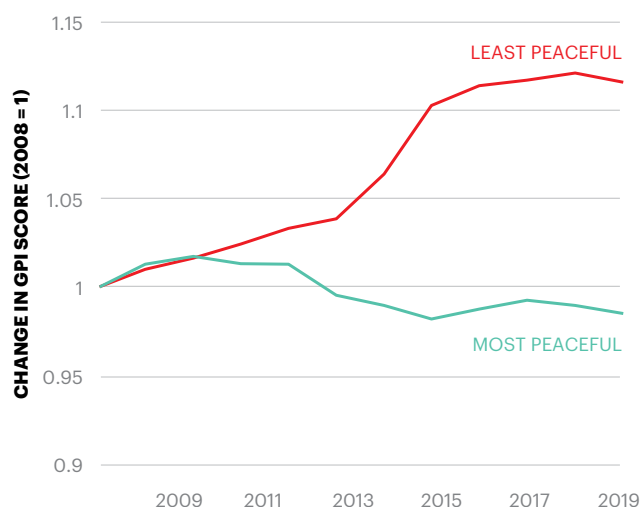
While there has been some fluctuation in the level of peacefulness of the world's most peaceful countries, the change has been minimal, with a 1.7 per cent improvement in peacefulness, since 2008. However, the ten largest improvers come from a wide range of regions with no discernible pattern in the indicators that improved. By contrast, the world's least peaceful countries have experienced a clear and sustained deterioration in peacefulness over the last decade, with the average level of peacefulness deteriorating by 11.8 per cent.

The change in levels of peacefulness since 2008 also varies considerably by government type, as shown in Figure 2.3. In countries classified as authoritarian regimes, peacefulness deteriorated the most. However, there were also significant deteriorations in peacefulness amongst hybrid regimes, which have a mix of democratic and authoritarian tendencies. Amongst countries classified as democratic, those classified as flawed democracies had an increase in peacefulness overall, while full democracies saw a decline in peacefulness of almost the same size as hybrid regimes. This fall in peacefulness amongst full democracies started five years ago, and is reflective of growing political instability and social unrest in Western Europe and North America, which has been reflected in deteriorations in Positive Peace in these regions.

FIGURE 2.2

Trend in peace, 25 most and 25 least peaceful countries, 2008-2019

The 25 least peaceful countries deteriorated in peacefulness by an average of 11.8 per cent, while the most peaceful improved by 1.7 per cent.

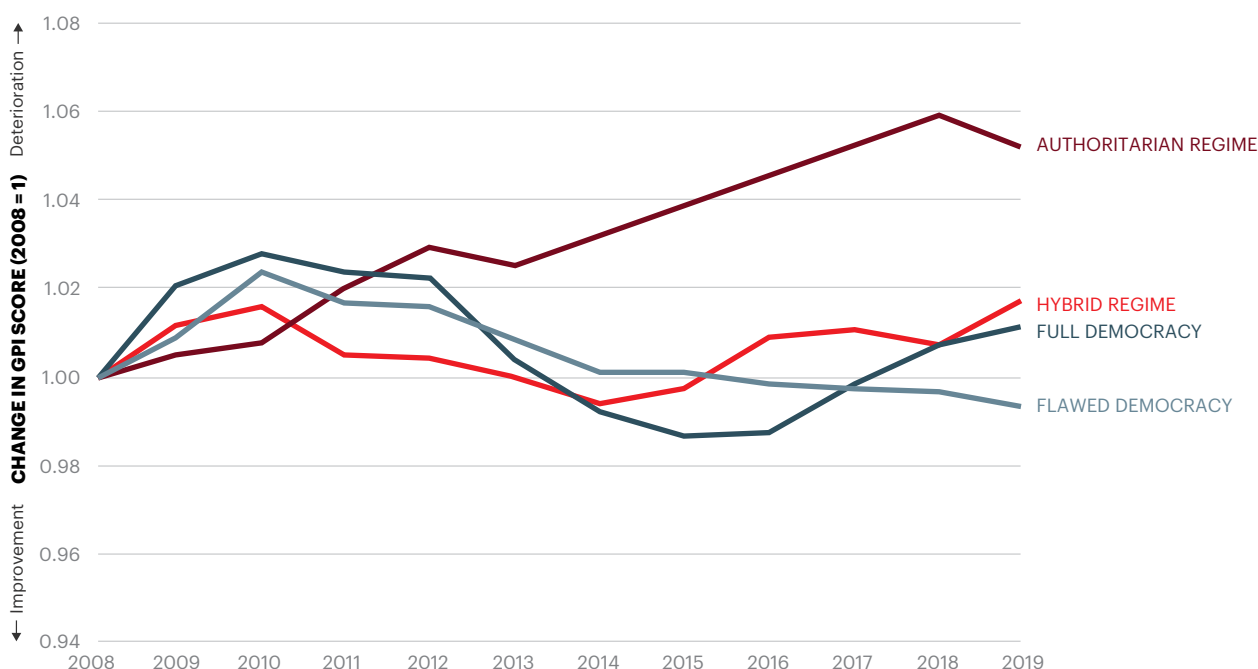


Source: IEP

FIGURE 2.3

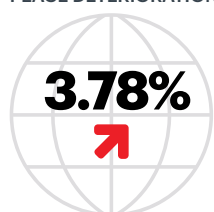
GPI overall trend by government type, 2008-2019

Authoritarian regimes deteriorated in peacefulness more than any other government type.



Source: IEP

PEACE DETERIORATION



The average level of global peacefulness has deteriorated by 3.78 per cent since 2008.



DETERIORATION IN MENA

75% ↑

Percentage of MENA countries that have deteriorated in peacefulness since 2008.

IMPROVEMENTS IN OVERALL PEACEFULNESS

<20% ↓

Only one country - Georgia - is more than 20% more peaceful in 2019 than it was in 2008.

GPI domain trends



The Global Peace Index (GPI) measures peacefulness across three domains: *Safety and Security*, *Ongoing Conflict*, and *Militarisation*. While the world has become less peaceful over the last decade, there have been some notable improvements in peace.

Despite public perceptions to the contrary, the average country score on the *Militarisation* domain improved by 2.58 per cent, driven largely by reductions in military spending as a percentage of GDP and the size of the armed forces in many countries. This was true for all regions except the MENA region and South America. The *Safety and Security* domain deteriorated by 4.02 per cent, and the *Ongoing Conflict* domain also deteriorated, falling by 8.69 per cent, as shown in Figure 2.4.

The change in the three GPI domains has varied not only by region but also by government type. Figure 2.5 shows the indexed trend for each of the three domains across the four government types identified by the EIU's Democracy Index.

The greatest difference between government types occurs in the *Ongoing Conflict* domain. The vast majority of the increase in active armed conflict over the past decade has taken place in authoritarian regimes, located for the most part in MENA and sub-Saharan Africa. Trends across the other two domains are more stable, with all four government types having deteriorated

on the *Safety and Security* domain, albeit only marginally for flawed democracies, and conversely all four improving on the *Militarisation* domain. Notably, full democracies had the second largest deterioration on the *Safety and Security* domain, and the second smallest improvement on the *Militarisation* domain.

Figure 2.6 shows the number of countries that improved and deteriorated in their overall score as well as for each domain and indicator, and whether the change was large or small. A change in score of more than 20 per cent between 2008 to 2018 was considered large.

Only one country, Georgia, had a large overall improvement in peacefulness, compared to ten that had a large deterioration over the same period, highlighting that peacefulness generally improves gradually while countries can deteriorate in peacefulness rapidly. This

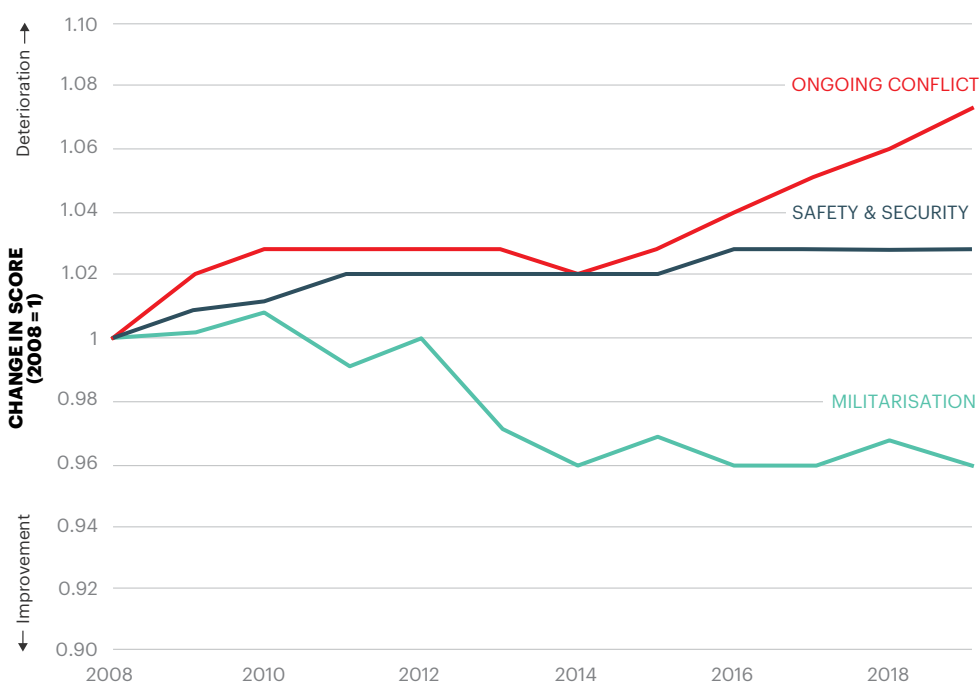
emphasizes the fact that although large falls can occur quickly, rebuilding peace in post-conflict countries can take many years or even decades.

“Although breakdowns in peacefulness can occur quickly, rebuilding peace in post-conflict countries can take many years or even decades.”

FIGURE 2.4

Indexed trend in peacefulness by domain, 2008-2019 (2008=1)

Militarisation was the only domain to record an improvement since 2008.



Source: IEP

DECLINING MILITARISATION

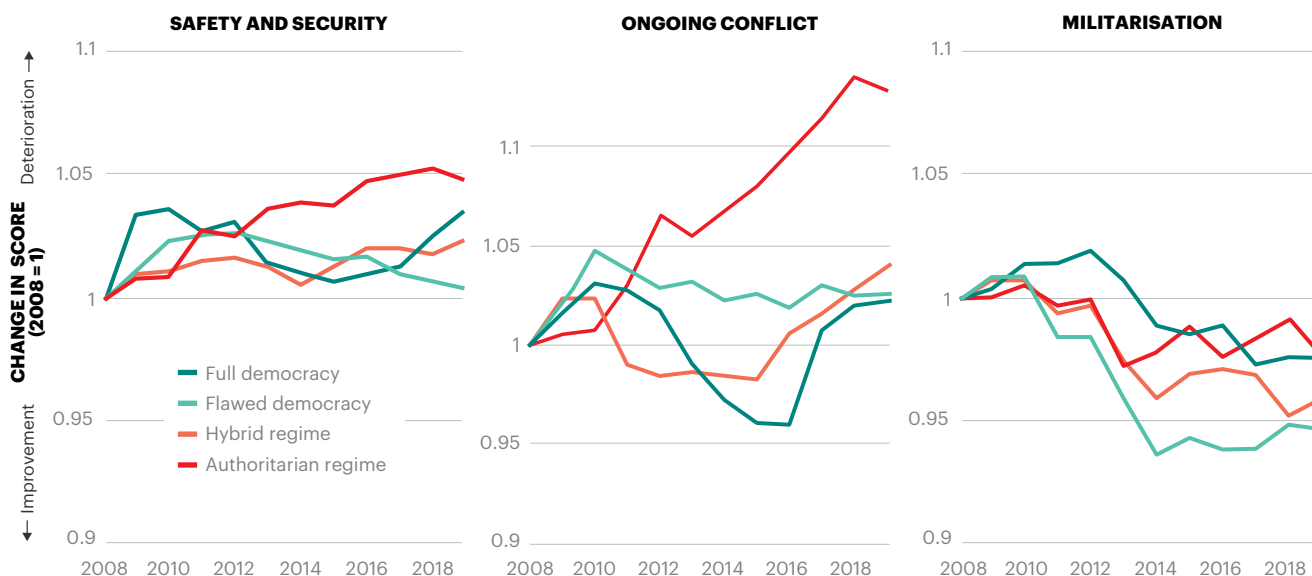
2.58%

The average country score on the *Militarisation* domain improved by 3.17 per cent, driven largely by reductions in military spending and the size of the armed forces in many countries.

FIGURE 2.5

Indexed trend in peacefulness by domain and government type, 2008-2019 (2008=1)

Authoritarian regimes had the largest deterioration in both the Safety and Security and Ongoing Conflict domains.



Source: IEP

“

Militarisation was the only domain where the number of large improvers outweighed large deteriorations.

The *Ongoing Conflict* domain registered the most countries with large shifts in peacefulness. Eight countries had a large improvement, while 29 suffered from large deteriorations. Deteriorations in this domain usually have negative spill over effects to other domains, which are hard to rectify quickly.

Militarisation was the only domain where the number of large improvers outweighed large deteriorations, with ten countries improving by more than 20 per cent, and just two deteriorating by more than 20 per cent.

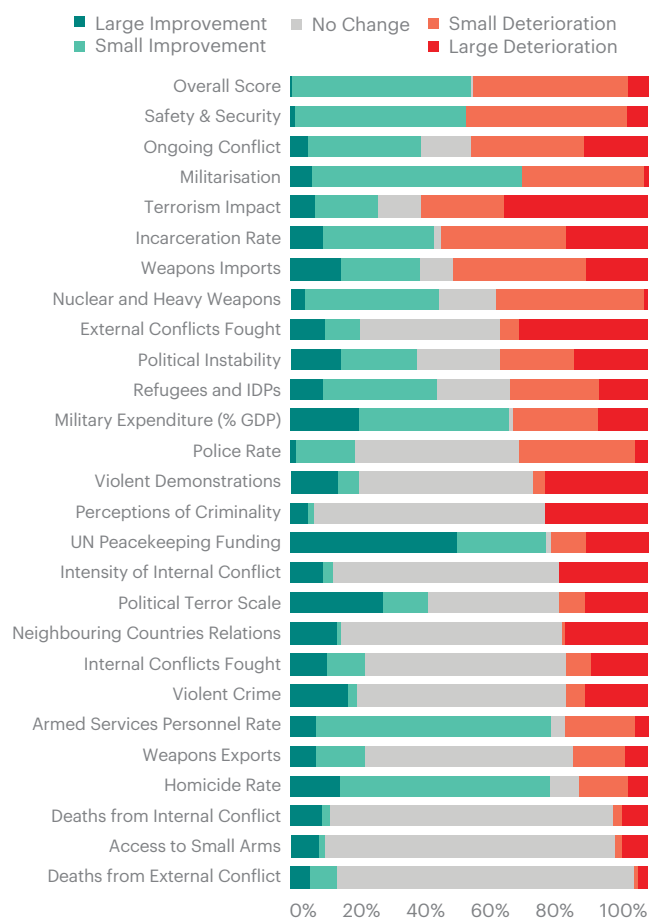
At the indicator level, *terrorism impact* deteriorated across the greatest number of countries, with 63 per cent of countries having a higher impact from terrorism in 2019 than in 2008, and over 40 per cent of all countries experiencing a large deterioration. Roughly half of the world, approximately 80 countries, also deteriorated on the *incarceration rate*, *weapons imports*, and *political instability* indicators, at 57, 54, and 41 per cent of countries respectively.

Improvements in peacefulness were most widespread for the *armed service personnel rate*, *homicide rate*, and *military expenditure* (% of GDP) indicators. Seventy-three per cent of countries have a lower *armed forces personnel rate* in 2019 compared to 2008. The *homicide rate* improved for 71 per cent of countries, while *military expenditure* (% of GDP) improved in 61 per cent of countries.

FIGURE 2.6

Country improvements and deteriorations by indicator, 2008-2019

Only one country had a large improvement in overall peacefulness from 2008 to 2019.



Source: IEP

SAFETY & SECURITY

Of the 11 Safety and Security domain indicators, nine deteriorated on average between 2008 and 2019, with the most deteriorations occurring on the *terrorism impact* indicator. Sixty-three per cent of countries had *terrorism impact* scores that deteriorated between 2008 and 2019. This coincided with the rise of Islamic State and the Levant (ISIL) and Boko Haram, escalating conflicts in the Middle East, and the rising levels of terrorism in Europe.

Figure 2.7 highlights the extent to which terrorism has increased over the past decade, with deaths from terrorism rising from under 10,000 in 2008 to just under 35,000 in 2014. Terrorism has also been spreading around the globe, most notably into economically prosperous and peaceful countries in Europe. In the 2008 GPI, 13 countries in Europe had not experienced any terrorism in the preceding five years. By the 2019 GPI, that number had dropped to just six.

However, although terrorism now impacts many more countries to a more severe degree than it did in 2008, the total number of deaths from terrorism has been declining since 2014. Fewer than 20,000 people were killed in terrorist attacks in 2017, down from just under 34,000 in 2014. Preliminary data from 2018 suggests that this trend has continued, with just over 12,000 deaths from terrorism recorded in the past year.

The *homicide rate* indicator had the largest improvement of the two *Safety and Security* indicators that did improve over the past decade. Despite a considerable increase in the homicide rate of

some Central American countries, 71 per cent of index countries reduced their homicide rate. There are now 29 countries globally that have a homicide rate of less than one per 100,000 people, and 59 which have a rate under two per 100,000 according to the latest available United Nations Office on Drugs and Crime (UNODC) homicide data. Homicide rates have even begun to fall amongst the Central and South American countries that experienced the largest increases over the last decade. El Salvador had a 15 per cent fall in its homicide rate from 2016 to 2017, but it still has one of the highest homicide rates in the world.

ONGOING CONFLICT

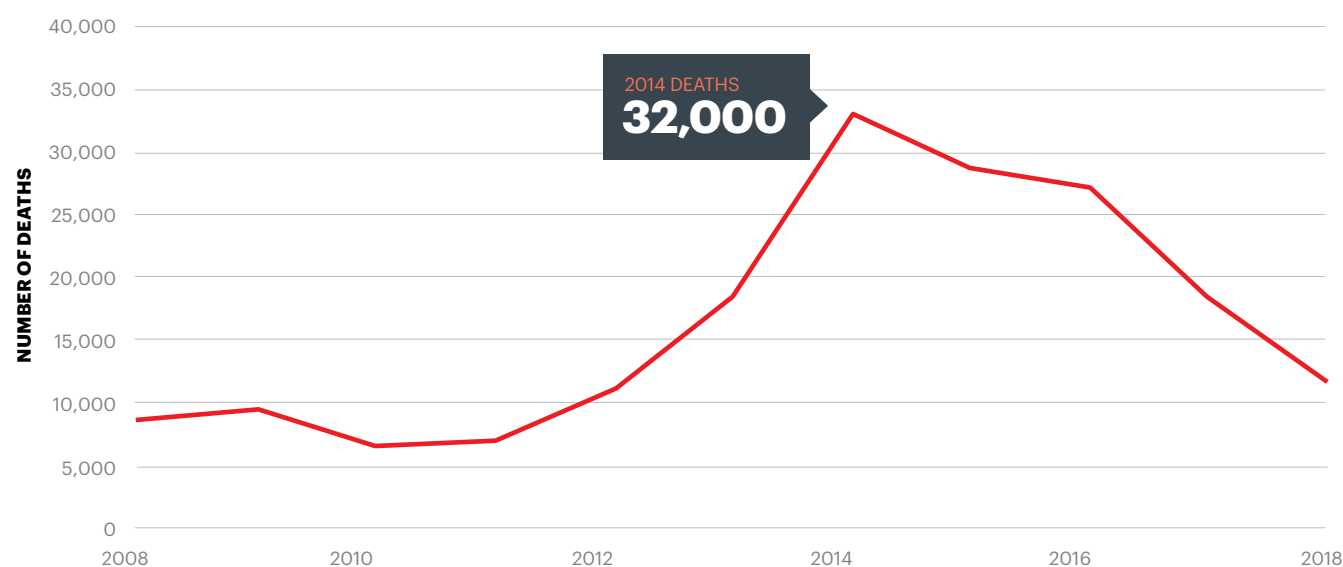
All six of the *Ongoing Conflict* indicators deteriorated between 2008 and 2019. However, this deterioration was concentrated in less than a quarter of all GPI countries. Most countries had little direct experience of violent conflict, and registered no change on most of the six indicators of conflict between 2008 and 2019.

The most notable change in the past few years has been a fall in the number of *deaths from internal conflict*, which had risen dramatically from 2010 to 2014, rising 252 per cent. While there is some dispute as to the exact definition of a death in conflict, as opposed to a homicide or death from terrorism, both the International Institute for Strategic Studies' 'Armed Conflict Database' and the Uppsala Conflict Data Program's 'Battle-Related Deaths' dataset record a significant decrease in deaths from 2014 to 2017, as shown in Figure 2.8. The GPI uses the Armed Conflict Database to calculate *deaths from internal conflict*.

FIGURE 2.7

Deaths from terrorism, 2008-2018

There were over 32,000 deaths from terrorism in 2014, a 287 per cent increase from 2006.

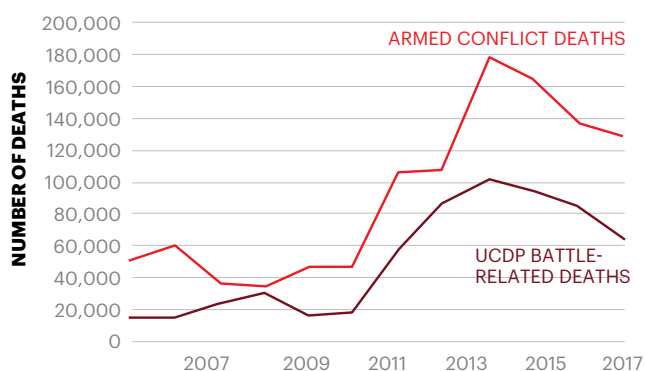


Source: START Global Terrorism Database

FIGURE 2.8

Conflict deaths, UCDP and Armed Conflict Database, 2006-2017

Deaths from conflict peaked in 2014, at the height of the Syrian Civil War.



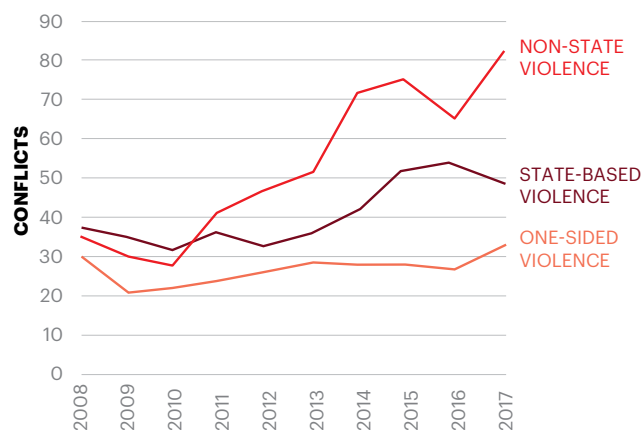
Source: UCDP and IISS

The dramatic increase in conflict deaths to 2014 was concentrated in a handful of countries, with the bulk of this increase being attributable to the war in Syria. There were also significant increases Afghanistan, Iraq, and Yemen. While the number of deaths from conflict has been declining since 2015, the total number of conflicts has continued to rise, as shown in Figure 2.9. The largest increase in conflict type occurred for the 'non-state violence' category of conflict. Non-state violence conflicts are defined as "the use of armed force between two organised armed groups, neither of which is the government of a state, which results in at least 25 battle-related deaths in a year".¹

FIGURE 2.9

Number of conflicts by type, 2008-2017

There has been a dramatic increase in the number of non-state conflicts since 2008.



Source: UCDP and IISS

MILITARISATION

Four of the six indicators on the *Militarisation* domain improved. The most noticeable improvements occurred on the *military expenditure (% of GDP)* indicator, where 61 per cent of countries improved, and the *armed services personnel* indicator, where 73 per cent of countries improved. Figure 2.10 shows the change in the average *armed services personnel* rate per 100,000 people, which fell from just over 460 per 100,000 to just under 400 over the last

decade. This improvement was not confined to any one region or government type. The *armed services personnel rate* fell across all four government types, with the largest relative change on average occurring in authoritarian regimes.

The improvement in both *armed services personnel* and *military expenditure* was particularly notable in some of the largest militaries in the world. Of the five countries with the largest total military expenditure - United States, China, Saudi Arabia, India, and Russia - all five had falls in their *armed service personnel rates*, and China, India, and the US also had a concurrent reduction in *military expenditure as a percentage of GDP*.

Military expenditure as a percentage of GDP improved in 98 countries between 2008 and 2019. It improved on average for five of the nine regions globally, with the biggest average improvement occurring in the Asia-Pacific region. The largest increases by region occurred in the Middle East and North Africa and South Asia, with average increases of 0.86 and 0.94 percentage points respectively.

While military expenditure has fallen on average as a percentage of GDP, it has risen on an absolute and per capita basis. Total global military spending rose from 1.573 trillion in 2008 to 1.774 trillion (constant \$US 2017 dollars), an increase of 12.9 per cent. However, the increase in total spending did not come from spending in North America or Western Europe, which registered decreases of 9.7 and 2.9 per cent respectively.

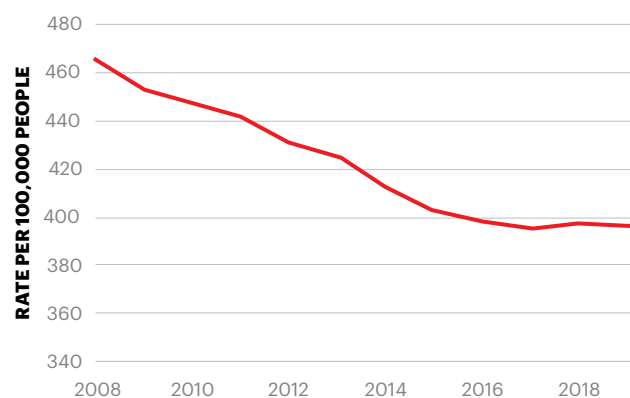
There was a slight deterioration in both the *weapons exports* and *weapons imports* indicators, the only two *Militarisation* indicators to show a deterioration over the past decade. *Weapons exports* remain highly concentrated, with 105 countries registering no exports at all for the period 2012 to 2017.

A number of otherwise highly peaceful countries also performed poorly on this indicator, with Norway, Sweden, Switzerland, and the Netherlands all being ranked amongst the ten highest weapons exporters per capita for every year in the last five years. Seven of the ten largest exporters on a per capita basis are western democracies. However, by total export value, just five countries account for over 75 per cent of total weapons exports: the US, Russia, Germany, France, and China.

FIGURE 2.10

Armed services personnel rate, 2008-2019

The average armed forces rate has declined consistently since 2008, across every government type.



Source: IISS, Military Balance



KEY FINDINGS

- Despite a fall in peacefulness globally, there have been increases in average feelings of life satisfaction and wellbeing, perceptions of safety, and confidence in the local police and military.
- Countries with very high levels of peacefulness averaged higher scores for *standard of living satisfaction*, *freedom in life satisfaction* and *feelings of respect* than those with lower levels of peace.
- Trends in negative personal feelings more closely match the trend in peacefulness. Perceptions of stress, worry, and sadness have risen on average as the world has become less peaceful.
- Changes in peacefulness at the national level are often reflected in perceptions of safety at the local level. There is a statistically significant correlation between changes in peacefulness on the *Safety and Security* domain, and the percentage of people who feel safe walking alone at night in their city or neighbourhood.
- More peaceful countries have more confidence in local police. However, there is only a very weak correlation between confidence in the military and peacefulness.
- Perception of leadership in the world's most influential countries has been declining. Confidence in US leadership has fallen the most in the past five years, with people now having more confidence in China than the US on average.
- Perceptions of Positive Peace have also improved, most notably on the *Acceptance of the Rights of Others* pillar. Many more people now feel that their countries are good places to live for ethnic minorities.
- However, over the past five years this improvement has not held for immigration, with a declining number of people feeling that their countries are a good place for immigrants to live, with the most notable fall occurring in Europe.

PERSPECTIVES ON PEACE

Despite this trend of deteriorating peacefulness over the past decade, perceptions relating to peace have improved. A majority of countries have recorded increases in feelings of safety, trust in national institutions and overall wellbeing over the past 10 years. This section looks at perceptions of peacefulness across a number of surveys, and their relationship to peace.

WELLBEING AND PEACEFULNESS

According to the Gallup World Poll (GWP), the past decade has seen increasing satisfaction regarding *freedom in life*, *treatment with respect* and *satisfaction with standards of living*. These factors were measured using the following questions:

- *Are you satisfied or dissatisfied with your standard of living, all the things you can buy and do?*
- *In (this country), are you satisfied or dissatisfied with your freedom to choose what you do with your life?*
- *Were you treated with respect all day yesterday?*

On average, the level of *freedom in life*, *standard of living* and the *feeling of being treated with respect* increased by 11, eight and four percentage points respectively over the past decade, as shown in Figure 2.11. In the past ten years, the *standard of living satisfaction* and *feelings of treatment of respect* each rose in 80 per cent of survey countries, while *freedom in life satisfaction* rose in 85 per cent of surveyed countries.

North America has the highest *freedom in life* and *standard of living satisfaction* of all the regions, at 88 and 81 per cent,

respectively. However, it was the only region to deteriorate on these two measures over the last decade. The fall in *freedom in life satisfaction* was caused by a five percentage point drop in the United States, while both Canada and the United States deteriorated in *standard of living satisfaction*.

Europe recorded the smallest regional improvement in *freedom in life satisfaction*, rising by three percentage points, while all other regional improvements exceeded ten percentage points. Spain, Belgium, Ireland, France and Denmark were the only European countries to deteriorate in *freedom in life satisfaction*. These five countries had concurrent falls in *standard of living satisfaction*, with the largest decline in Ireland, at eight percentage points.

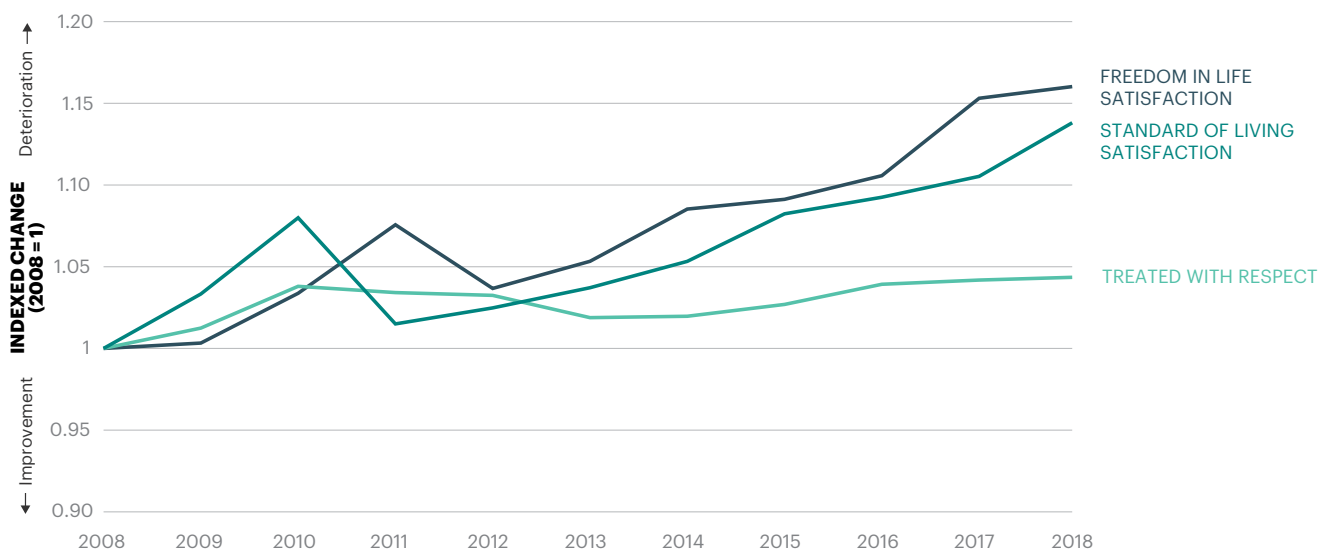
While feelings of being treated with respect rose across all regions, North America and Europe underwent the smallest improvements of 0.5 and one percentage points respectively.

A comparison of these perceptions of wellbeing and corresponding peacefulness scores demonstrates a strong correlation between the two. Countries with very high levels of peacefulness averaged higher *standard of living satisfaction*, *freedom in life satisfaction* and *feelings of respect* than those with lower levels of peace. Figure 2.12 shows the general relationship of greater satisfaction with *freedom in life* as peace levels rise.

FIGURE 2.11

Indexed trend in well-being, average country change, 2008-2018

Satisfaction with freedom in life increased by 17 percentage points over the past ten years.

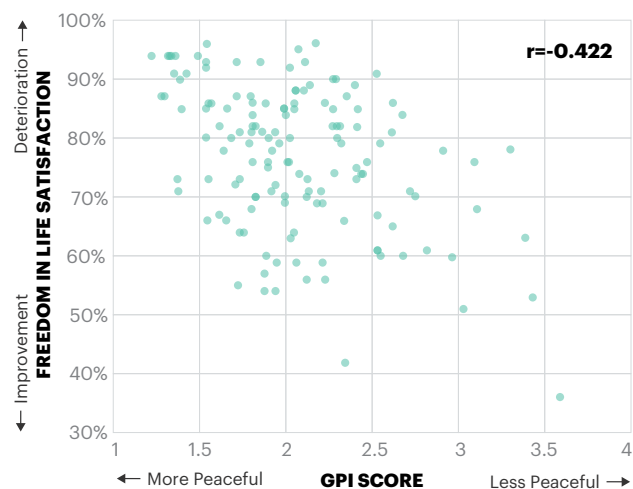


Source: Gallup World Poll; IEP calculations

FIGURE 2.12

Freedom in life vs peace, 2018

There is a strong correlation between feelings of freedom in life and overall peacefulness.



Source: Gallup World Poll; IEP

As peacefulness increases, so does satisfaction with life, freedom, and feelings of respect. In 2018, all very high peace countries had over 60 per cent satisfaction in all three areas, followed by 61 per cent of high peace states, 50 per cent of medium peace states, 39 per cent of low peace states and 33 per cent of very low peace states.

However, as shown in Figure 2.13, the largest improvements in *freedom in life satisfaction* in the last decade occurred medium and low peace countries, increasing by 15 per cent each.

“

As peacefulness increases, so does satisfaction with life, freedom, and feelings of respect.

FIGURE 2.13

Changes in well being and peace, 2008-2018

Countries with very high peace levels have higher treatment with respect, freedom in life satisfaction and standard of living satisfaction than countries at other levels of peace.



Source: Gallup World Poll, IEP calculations

Standard of living satisfaction increased the most in medium peace countries, growing from 50 to 61 per cent from 2008 to 2018. In 2008, *standard of living satisfaction* averaged at 50 per cent in very low, low and medium peace countries, while high and very high peace countries averaged 57 and 77 per cent satisfaction respectively. Over the ten-year period, countries with very low peace recorded the least change, rising by only three per cent. Very high peace countries *standard of living satisfaction* increased to 83 per cent in 2018.

Treatment with respect improved across all levels of peace, with the greatest increase in very low peace countries, rising from 79 to 86 per cent. The smallest increase was in high peace countries, moving up from 89 to 90 per cent, followed by low peace countries, increasing from 79 to 82 per cent.

“

Satisfaction with standard of living improved the least in countries with very low levels of peacefulness.

NEGATIVE WELLBEING TRENDS

Even with improvements in certain aspects of wellbeing, feelings of sadness, worry and stress are on the rise globally, as shown in Figure 2.14. This increase in negative personal feelings more closely mirrors the change in actual levels of peacefulness.

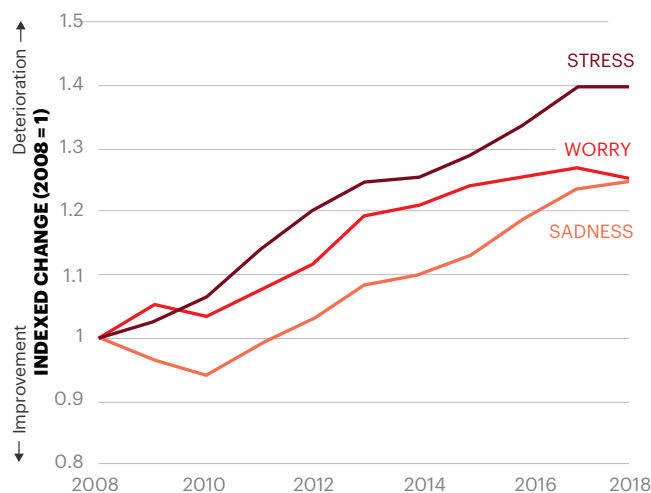
Experiences of sadness and worry increased across all regions in the past decade, though most significantly in South Asia and sub-Saharan Africa. Sub-Saharan Africa had the greatest increase in stress, increasing 18 percentage points from 2008 to 2018. The Asia-Pacific had the smallest increase in stress over the decade, rising by only 0.3 percentage points, as shown in Figure 2.15.

Experiences of sadness, stress and worry are on the rise regardless of peace levels. In the past decade, 77 countries experienced increased sadness whilst only 20 decreased in experiences of sadness. Of those that increased in sadness, 44 had a corresponding deterioration in peace level. Of those that decreased in sadness, 60 per cent recorded a corresponding increase in peacefulness. Less than half of the countries that improved in stress and worry levels had corresponding improvements in their GPI scores.

FIGURE 2.14

Indexed trend of feelings of worry, sadness, and stress, 2008-2018

Globally, feelings of sadness, stress and worry have increased by a combined average of eight percentage points.

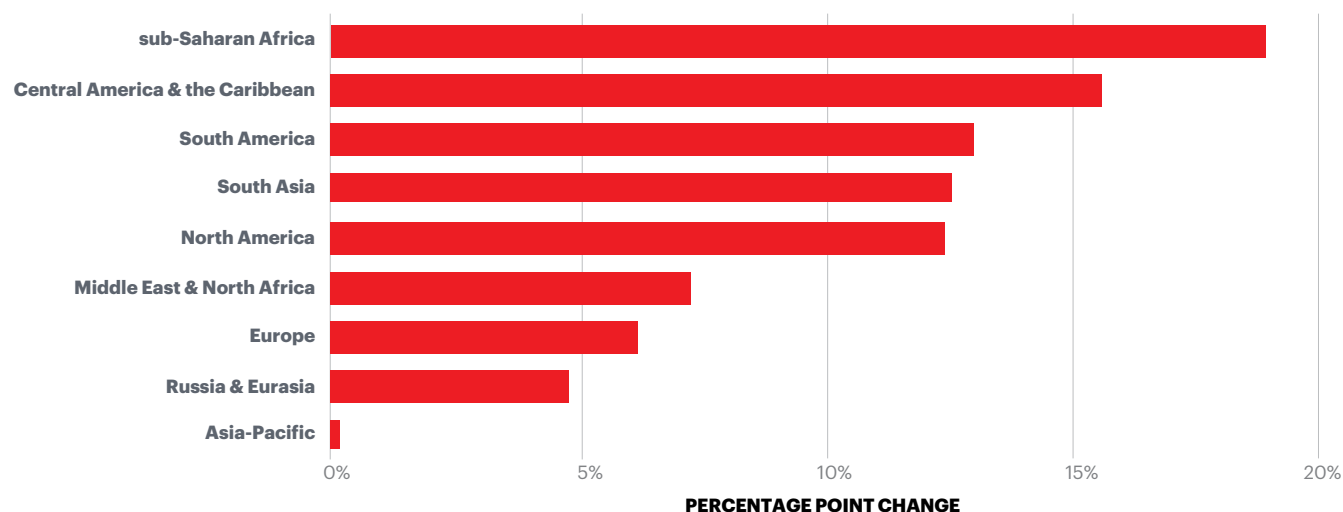


Source: Gallup World Poll; IEP calculations

FIGURE 2.15

Regional changes in stress, 2008-2018

The percentage of respondents reporting experiences of stress increased by over 18 percentage points in sub-Saharan Africa.



Source: Gallup World Poll; IEP calculations

“

Even with improvements in certain aspects of wellbeing, feelings of sadness, worry and stress are on the rise globally.

PERCEPTIONS OF SAFETY AND SECURITY

Over the past decade, the average country score on the *Safety and Security* domain deteriorated by just over four per cent, driven largely by increasing deaths from internal conflict, terrorism, and growing internal displacement. This deterioration in *Safety and Security* is also reflected in perceptions of safety, as shown in Figure 2.16. There is a statistically significant correlation between changes in the *Safety and Security* domain, and changes in the percentage of respondents who feel safe walking alone at night, as measured by the GWP.

There has been an overall increase in feelings of safety as shown in Figure 2.17, with the average percentage of respondents who say they feel safe walking alone at night rising from 59 per cent in 2008 to 62 per cent in 2018. Despite the global positive trend, South Asia, South America and sub-Saharan Africa deteriorated in feelings of safety by 4.3, four and one per cent respectively. Mauritania, Mali and Afghanistan were the countries that had the largest deteriorations, falling by 26, 21 and 20 per cent, respectively.

For six of the nine regions more than 70 per cent of respondents said they feel safe walking alone: North America, Europe, Russia and Eurasia, the Asia-Pacific and the Middle East and North Africa. All of these regions recorded increases on this question since 2008, with Russia and Eurasia increasing by 16 percentage points in the last decade. Russia increased the most within the region, with respondents claiming to feel safe rising from 30 to 57 per cent.

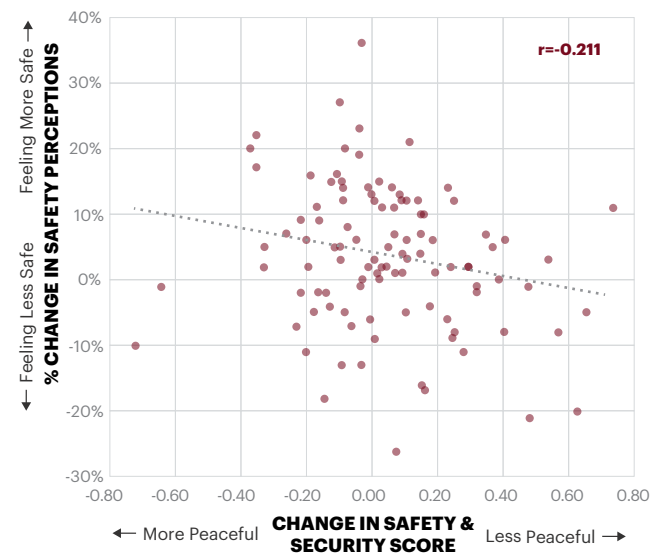
South America is the region with the lowest feeling of safety, with just 43 per cent of respondents on average saying they feel safe walking alone in South American countries. Safety walking alone is lowest in Brazil and Venezuela, at 34 and 26 per cent respectively.

As Figure 2.16 demonstrates, there is a strong relationship between levels of peacefulness and feelings of safety. Countries with very low levels of peace have yielded below average responses of feeling safe walking alone, while countries with very high levels of peacefulness have consistently outperformed the global average. This relationship also holds when looking at perceptions of safety by gender. Women in very high peace countries are much more likely to report feeling safe walking alone as compared to women in countries with lower levels of peace.

FIGURE 2.16

Changes in Safety and Security vs changes in safety perceptions, 2008-2018

As countries have become less safe, there has been a concurrent deterioration in perceptions of safety.

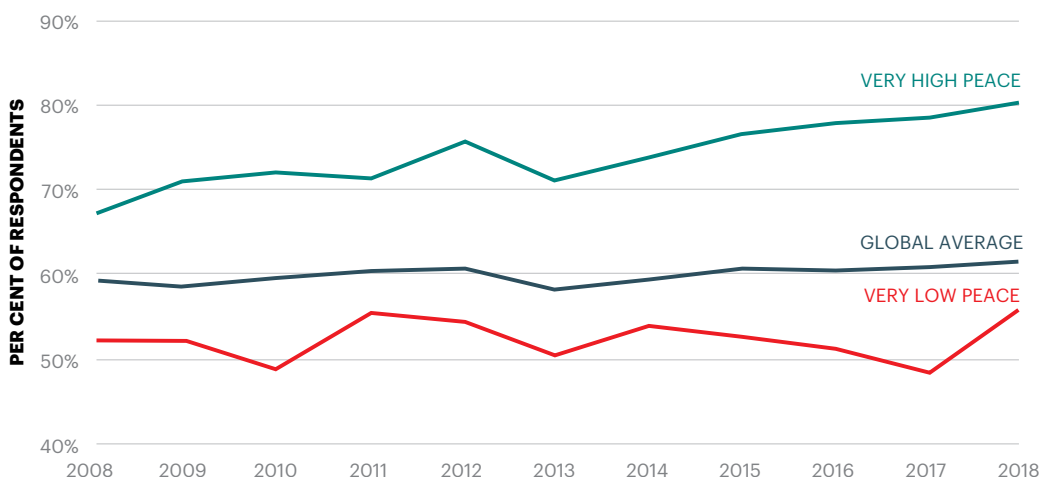


Source: Gallup World Poll; IEP

FIGURE 2.17

Global perception of safety walking alone, 2008-2018

In 2018, the percentage of people who felt safe walking alone in countries with very low peace was 25 percentage points lower than those in very high peace countries.



Source: Gallup World Poll; IEP calculations

SENSE OF SAFETY

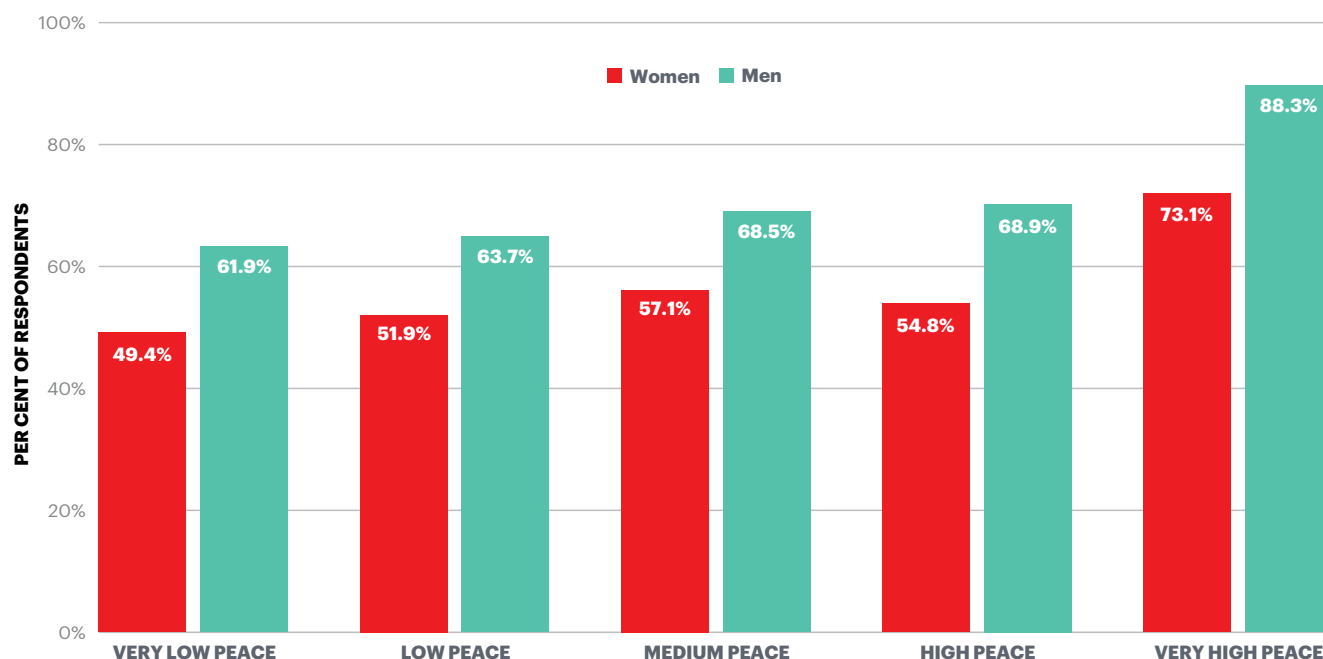
18pts

Feelings of safety in very high peace countries were 18 percentage points higher than the global average.

FIGURE 2.18

Percentage of men and women who feel safe walking alone, 2018

The greatest disparity between men and women is in very high peace countries.



Source: Gallup World Poll, IEP calculations

Although perceptions of safety were lowest in very low and low peace countries in 2018, the largest disparity between perceptions of men and women occurred in countries with very high levels of peace, a difference of 15.2 percentage points. The highly peaceful countries of Australia, Portugal, New Zealand and Japan had disparities in perceptions of safety of 22 percentage points or more, ranking within the top 10 per cent of surveyed countries in terms of the largest disparities between men and women.

Australia and Moldova each had a 31 percentage point gap between the per cent of men and women who feel safe walking alone, the highest gap in all surveyed countries. By contrast, Switzerland, a very high peace country, was the only country in which women and men reported feeling equally safe walking alone.

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Although perceptions of safety were lowest in very low and low peace countries in 2018, the largest disparity between perceptions of men and women occurred in countries with very high levels of peace, a difference of 15.2 percentage points.

PERCEPTIONS OF SECURITY FORCES

As shown in Figure 2.19, peacefulness is correlated to confidence in the local police. The more peaceful a country, the more likely it is to have high levels of confidence in the local police force. However, the correlation between confidence in the military and levels of peacefulness was very weak.

Despite the average deterioration in global peacefulness over the past decade, confidence in both the police and military has increased on average. The percentage of respondents who state that they have confidence in the local police has risen from just over 65 per cent in 2008 to just under 70 per cent in 2018, with a similar increase from 61 per cent to just under 65 per cent expressing confidence in the military, as shown in Figure 2.20.

While confidence in the military increased in 75 countries globally, several countries experienced drastic deteriorations in the past decade. Venezuela, Madagascar, Uganda and Mauritania recorded falls in confidence of 32, 22, 19 and 12 percentage points respectively. In Afghanistan, confidence in the military fell over 31 percentage points in the last five years, which corresponded with a strong deterioration in peacefulness over the same period.

Regionally, the highest levels of trust in state security forces are in North America and the lowest levels are in South America, as shown in Figure 2.21. However, North America has seen a small decline in confidence in local police since 2008, with the United States' and Canada's trust falling by two and four percentage points respectively. The region has high confidence in the military, with Canadian trust rising by eight percentage points and American trust remaining around an average of 90 per cent.

South America has the lowest level of trust in the police, followed by Central America and the Caribbean. Within South America, Bolivia and Venezuela have the lowest levels, with only 22 and 32

per cent of respondents respectively expressing confidence in the local police. Chile ranks highest within the region, at 59 per cent, but deteriorated five percentage points since 2008.

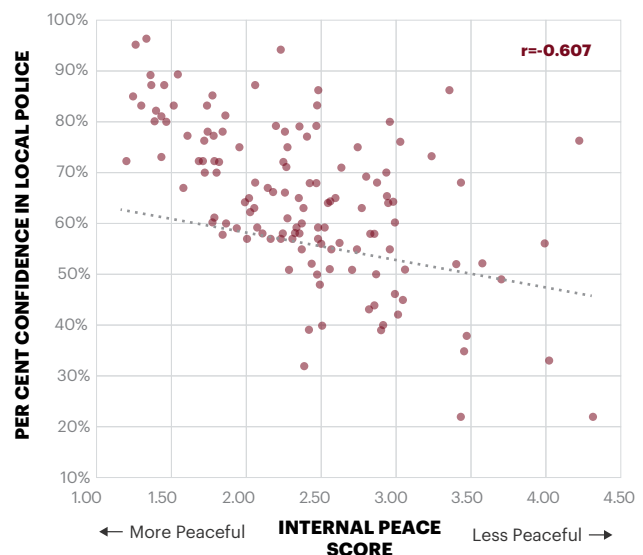
In Central America, confidence in the local police is lowest in Mexico and Nicaragua, with 38 and 40 per cent of respondents claiming confidence in the local police, respectively.

Globally, confidence in the local police fell most significantly in Afghanistan, Venezuela, Madagascar, Mauritania, Nicaragua and

FIGURE 2.19

Internal peace vs. confidence in local police, 2018

Internal peacefulness is positively correlated with societal confidence in police.

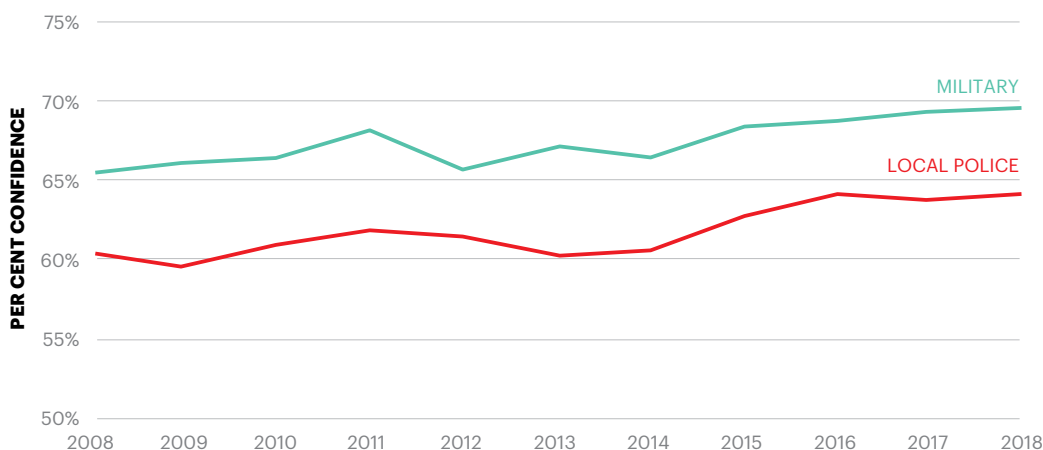


Source: Gallup World Poll; IEP

FIGURE 2.20

Global attitudes towards state security, 2008-2018

Global confidence in local police has consistently been lower than confidence in the military, although both have steadily risen over the past decade.



Source: Gallup World Poll, IEP calculations

SECURITY CONFIDENCE

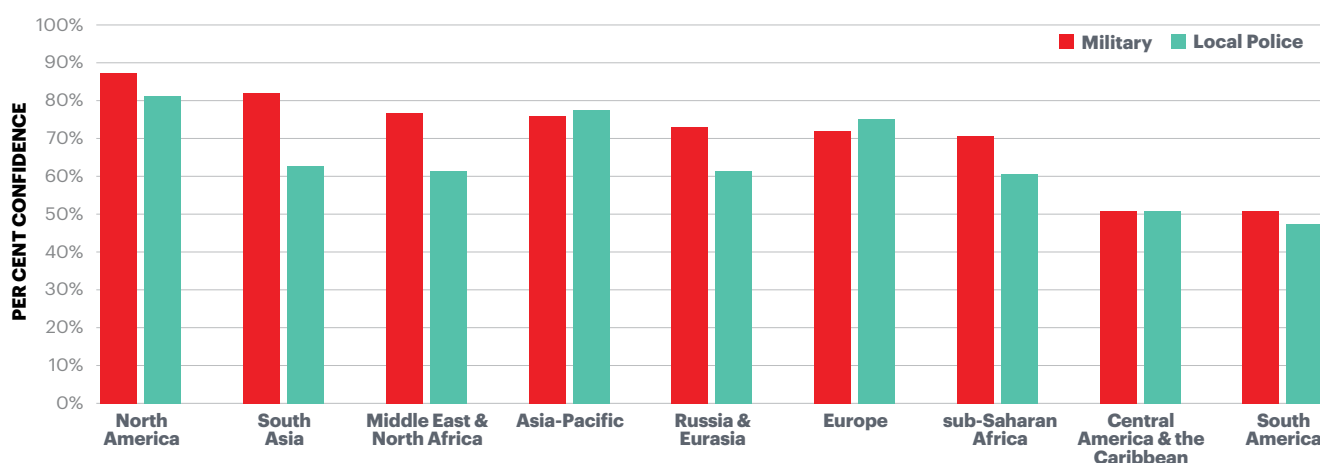
4.8pts

Confidence in the military has risen by 4.8 percentage points since 2008.

FIGURE 2.21

Confidence in security forces by region, 2018

Confidence in the military and local police is lowest in South America, at 51 and 47 per cent, respectively.



Source: Gallup World Poll, IEP calculations

Botswana. In the past year, Afghanistan had the largest deterioration in confidence in the local police, falling by 32 percentage points.

Over the past decade, confidence in the local police has risen in countries with high levels of peacefulness and fallen in those with low levels of peace, as shown in Figure 2.22. In countries with very high levels of peace, confidence in the police rose from 76 to 84 per cent, whilst in countries with medium levels of peace, there was an even bigger increase in confidence, from 51 to 62 per cent.

Confidence in the military has risen in all regions. North America and South Asia ranked as the two regions with the highest trust in the military. Like trust in the local police, the lowest confidence in the military was in South America, closely followed by Central America and the Caribbean.

Despite an increase in trust of 20 per cent in Ecuador and 14 per cent in Uruguay and Paraguay, two of the largest deteriorations in confidence in the military were in South America. Venezuela

recorded the greatest deterioration in the region and globally, falling from 53 to 21 per cent confidence in the military. Colombia had the sixth largest deterioration globally, falling by 12 percentage points.

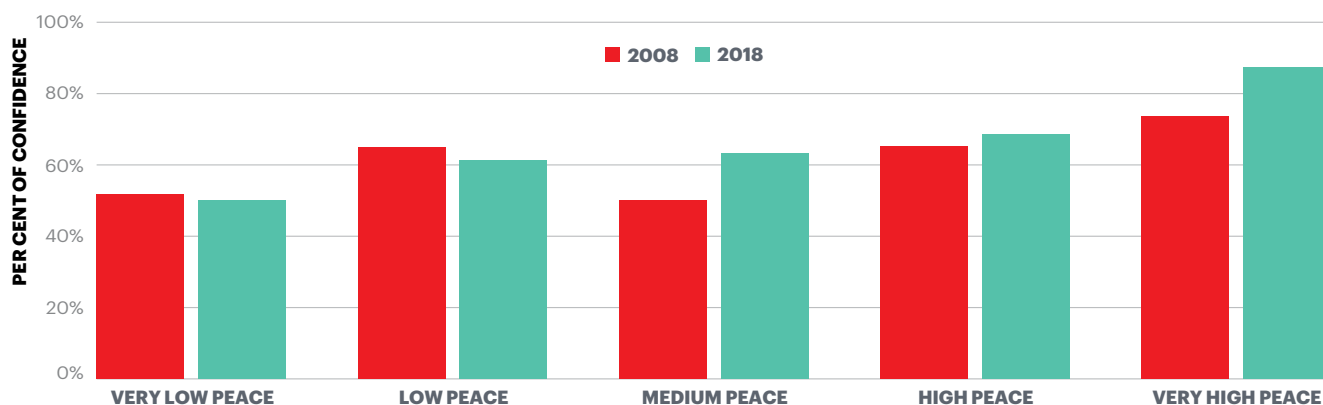
Nicaragua and Mexico were the only two countries that had decreased confidence in the military in Central America. Nicaragua fell by 17 percentage points to 38 per cent, ranking lowest within the region in terms of military trust. This fall in confidence is reflected in Nicaragua's fall on the GPI, as it was the country with the largest deterioration in peacefulness in 2019. Although Mexico fell by two percentage points, it had the second highest level of confidence in the region, at 61 per cent.

In other regions, notable deteriorations in confidence in the military in the past decade occurred in Madagascar, Uganda, South Korea and the Netherlands. Zimbabwe, Guatemala and Pakistan recorded the largest increases in trust in the military, rising by 41, 36, and 26 percentage points.

FIGURE 2.22

Confidence in the local police by peace level, 2008 and 2018

Confidence in local police increased the most in countries with very high levels of peace.



Source: Gallup World Poll, IEP calculations

PERCEPTIONS OF LEADERSHIP

Approval of domestic leadership has increased over the past decade, with approval of a country's own leaders increasing by an average of seven percentage points globally since 2011. However, approval of external leadership, particularly the leadership of the most influential countries in the world, has fallen over the past decade.

Figure 2.23 shows that the approval rating for the leadership of China, Russia, the U.S. and Germany all declined from 2008 to 2018.

Since 2008, approval of US leadership has increased in four of the nine regions: Europe, South Asia, the Middle East and North Africa and South America. It decreased in sub-Saharan Africa, the Asia-Pacific, Central America and the Caribbean, Russia and Eurasia and North America. Approval of US leadership has fallen in almost all regions since 2016.

The most dramatic decrease was in sub-Saharan Africa, where approval of US leadership fell 22 percentage points over the past decade. The largest single country deteriorations occurred in Europe: Portugal, Belgium, and Norway, all recorded falls in confidence in US leadership of more than 40 percentage points. By contrast, approval increased most significantly in Benin, Israel, Niger, Nepal and Sierra Leone, rising by more than 10 percentage points in these countries. The global average approval of US leadership fell below approval of Chinese leadership for the first time in 2017.

“Approval of external leadership, particularly the leadership of the most influential countries in the world, has fallen over the past decade.”

Approval of Russian leadership declined in Russia and Eurasia, sub-Saharan Africa and North America. However, it increased in Central and South Asia. Since 2014, it has been increasing globally, although it still lies below 2008 levels and below the approval levels of the other measured major powers. Mongolia has seen the greatest increase in Russian leadership approval since 2014, rising from 41 to 82 per cent since 2008. Approval of Russia's leadership is lowest in North America, at 16 per cent.

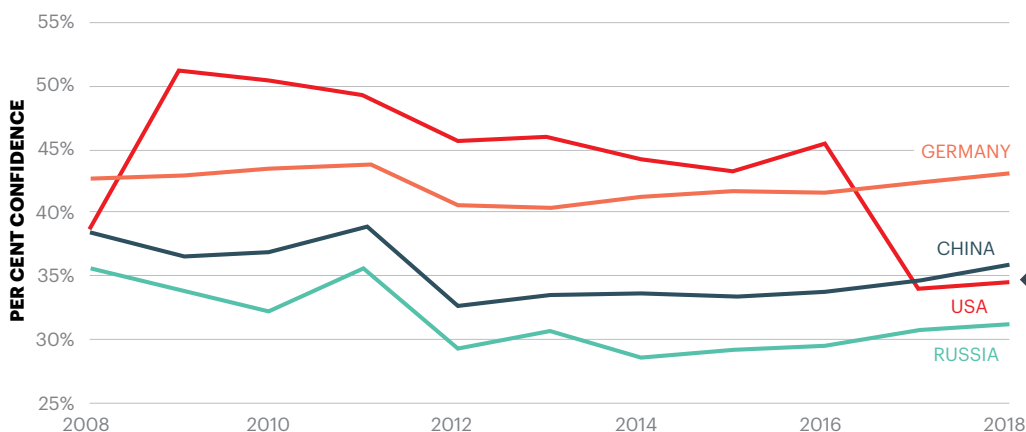
Approval of Chinese leadership varies considerably by region. It is highest in sub-Saharan Africa but has been steadily declining for the past eight years, falling from a high of 71 per cent in 2011, to just under 51 per cent in 2018. Falls in approval were also seen in the Asia-Pacific and the Middle East and North Africa. By contrast European approval of China's leadership increased by 13 percentage points, from 14 per cent in 2008 to 27 per cent in 2018. In Asia, approval increased most significantly in Taiwan and Mongolia, rising by 20 and 18 percentage points to 49 and 60 per cent approval, respectively. The greatest fall in approval was in Vietnam, dropping from 56 to just six per cent.

Approval of Germany's leadership fell most drastically in sub-Saharan Africa, decreasing by 23 per cent, and moderately decreased in Russia and Eurasia. However, in all other regions approval rose. Germany has maintained high approval from surrounding states, with the highest support coming from Kosovo, Denmark, the Netherlands, Albania and Finland.

FIGURE 2.23

Approval of US, Russian, German, and Chinese leadership, 2008-2018

Global confidence in U.S. leadership has fallen 17 percentage points since 2009.



Source: Gallup World Poll

GLOBAL LEADERSHIP

11.2pts

Global confidence in US leadership fell 11.2 percentage points from 2016 to 2017.

PERCEPTIONS OF POSITIVE PEACE

Positive Peace is defined as the *attitudes, institutions and structures* that create and sustain peaceful societies. Societal views of institutions, levels of corruption and political processes within a country are indicative of the presence or potential for Positive Peace.

WELL-FUNCTIONING GOVERNMENT AND LOW LEVELS OF CORRUPTION

Over the past ten years, trust in the national government, political processes such as elections, the judicial system and financial institutions has increased modestly on a global scale. Growing confidence in these institutions correlates with improvements in Positive Peace over the past decade. There was a weak but statistically significant correlation between changes in confidence in the judicial system and financial institutions, and actual changes in Positive Peace.

Perceptions of institutional competency vary significantly from region to region. South America has the lowest faith in government, with 77 per cent of respondents in the region believing their government was corrupt in 2018. This region also had the largest increase in perceptions of corruption over the past decade, rising by eight percentage points. Deteriorations of over 20 percentage points in government confidence occurred in Uruguay, Colombia, Venezuela and Brazil.

The biggest improvement in confidence in institutions occurred in sub-Saharan Africa, with perceptions of corruption falling the most of any region in the last 10 years. Perceptions of corruption decreased by 15 percentage points, and confidence in the national government rose by 11 percentage points. The upward trend in confidence in the government in sub-Saharan Africa was driven by increases of 25 percentage points or more in Tanzania, Zimbabwe,

Cameroon, Senegal, Mozambique and Niger. These six countries ranked as the top risers in government trust globally.

Confidence in the honesty of elections rose in 58 countries in the last decade, driving the global average up by 3.4 percentage points. Figure 2.24 shows the percentage of respondents who have confidence in local elections, by the level of peacefulness. Trust in the honesty of elections is highest in countries with very high and high levels of peace, with scores of 68 per cent and 50 per cent respectively. The very low peace countries had the lowest confidence at 32 per cent. Brazil, Gabon, Iraq, Ukraine and Bulgaria had the lowest confidence in 2018, with less than 15 per cent of respondents claiming elections were honest.

Interestingly, low peace countries average a higher confidence in election honesty than medium peace countries, although very low peace countries have significantly lower levels of confidence than all other peace levels. The largest improvement in confidence in election honesty was seen in Tanzania, a country with high levels of peacefulness. However, several countries with high peace levels recorded deteriorations, most notably Spain, Uruguay, Botswana, the Netherlands, France and Italy. Spain had the largest deterioration in confidence in elections of all countries, with a fall of 22 percentage points.

ACCEPTANCE OF THE RIGHTS OF OTHERS

Community acceptance of immigration has been declining since 2014, however, acceptance of minority groups, such as racial and ethnic minorities and gay and lesbian people, has improved globally since 2008. Figure 2.25 shows the indexed trend for whether people feel that their country is a good place for immigrants, racial and ethnic minorities and gay and lesbian people. There is a strong correlation between acceptance of gay or

FIGURE 2.24

Confidence in the honesty of elections, 2018

Confidence in the honesty of elections is 2.16 times greater in countries with a very high level of peace than in those with very low levels of peace.

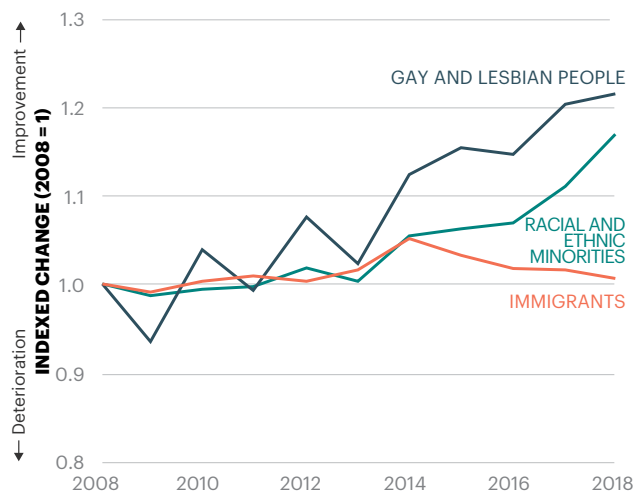


Source: Gallup World Poll, IEP calculations

FIGURE 2.25

Acceptance of the rights of others, indexed trend, 2008-2018

The per cent of respondents claiming their area is a good place for immigrants has declined each year since 2014.



Source: Gallup World Poll; IEP calculations

lesbian people and overall GPI peace scores ($r = -0.426$), with more moderate correlations for acceptance of racial and ethnic minorities ($r = -0.212$) and immigrants ($r = -0.213$).

When asked about community acceptance of racial and ethnic minorities, positive responses increased from 60 per cent in 2008 to 68 per cent in 2018 globally. North America ranks the highest in terms of perceived acceptance at 85 per cent. However, there has been a three percentage point fall in this region since 2008.

Central America and the Caribbean acceptance of racial and ethnic minorities increased by 15.5 percentage points, with the highest improvement in acceptance in Honduras, increasing from 55 to 77 per cent.

Acceptance of immigrants was rising on average until 2014, but has

since declined by three percent globally. Over the past decade, the Middle East and North Africa had the largest improvement, increasing by eight per cent, while European acceptance deteriorated by six per cent. Europe's decline was driven by a 38 percentage point drop in Hungary's acceptance of immigrants, which fell to 17 per cent, the lowest acceptance of all surveyed countries. Latvia, Poland, Estonia, Spain and Sweden also decreased in perceptions of community acceptance of immigrants, while Kosovo, Portugal, and Norway increased by more than 15 percentage points.

Canada, New Zealand and Norway had the three highest levels of acceptance of immigration, at 88 per cent and above. Canada and Norway also ranked among the top five in the per cent of respondents that held that their country was a good place for gay and lesbian people and racial and ethnic minorities.

FIGURE 2.26

Community acceptance and peace levels, 2008-2018

Over the past decade, community acceptance of immigrants rose most significantly in low peace countries while seeing little change in all other levels of peacefulness.



Source: Gallup World Poll 2018; IEP calculations



Climate Change and Peace

KEY FINDINGS

- An estimated 971 million people live in areas with high or very high exposure to climate hazards. Of this number, 400 million or 41 per cent, reside in countries with already low levels of peacefulness.
- Climate change can indirectly increase the likelihood of violent conflict through its impacts on resource availability, livelihood security and migration.
- In 2017, 61.5 per cent of total displacements were due to climate-related disasters, while 38.5 per cent were caused by armed conflict.
- Eight of the 25 least peaceful countries have ten per cent or more of their population in high climate hazard areas, amounting to 103.7 million people at risk. These countries are South Sudan, Iraq, Libya, the Democratic Republic of the Congo, Sudan, North Korea, Nigeria and Mexico.
- Regionally, sub-Saharan Africa has the weakest coping capacity for climate hazards, which could exacerbate climate-related violent conflicts. There are 122 million people at risk in the region.
- The MENA region has the highest water-related risk levels of the nine regions, with 93 per cent of recorded river catchments at medium to extremely high risk of water stress.
- Countries with high levels of Positive Peace are better able to manage climate-induced shocks and tend to have higher environmental performance than those with lower levels of Positive Peace.

The effects of climate change pose a major challenge to peacefulness in the coming decade. Environmental risks of climate change and resource scarcity had the highest likelihood and impact, out of five risk categories including economic, geopolitical, societal, technological and environmental threats, as estimated by the World Economic Forum.²

A recent Intergovernmental Panel on Climate Change (IPCC) report estimates with high confidence that there will be a further 1.5 degrees Celsius increase in Earth's surface temperature between 2030 and 2052, with the following potential effects³:

- rising land and sea temperatures in most of the world
- extremely high temperatures in most of the places where people live, with extreme lows at night
- extreme rainfall in some places, and droughts in others
- continued sea level rises.

The impacts of fluctuating climate conditions on societal stability and its potential to lead to violent conflict is of growing importance. Although long-term quantitative data on the interactions of climate and peace is scarce, what is available suggests that climate has played a role in triggering or exacerbating conflict through its effects on livelihood security and resource availability.

Persistent drought was found to relate to a decline in agricultural productivity and the collapse of ancient empires including the Akkadians in Mesopotamia, the Mesoamerican Mayans, the Mochica in modern-day Peru, the Khmer empire in the Mekong Basin, and the Tiwanaku Empire in the Andes.⁴

War data from 1500 to 1800 shows major changes in the climate to be a major driver of large-scale crises in the Northern Hemisphere.⁵ Peak war frequency in Europe correlated to the cooling phases in the Northern Hemisphere. During the Cold Phase, which refers to the 100-year period from 1560 to 1660, the rate of wars increased by 41 per cent in Europe, likely due to decreased agricultural production and growing population rates.⁶ Similar trends were observed in China during the past millennium.⁷

The effects of climate shocks on factors such as resource scarcity, livelihood security and displacement can greatly increase the risk of future violent conflict, even when climate change does not directly cause conflict.

The remainder of this section discusses the trends in current climate change, the risks these changes pose and the factors that can either exacerbate or alleviate climate change's effects on peacefulness.

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The effects of climate shocks on factors such as resource scarcity, livelihood security and displacement can greatly increase the risk of future violent conflict.

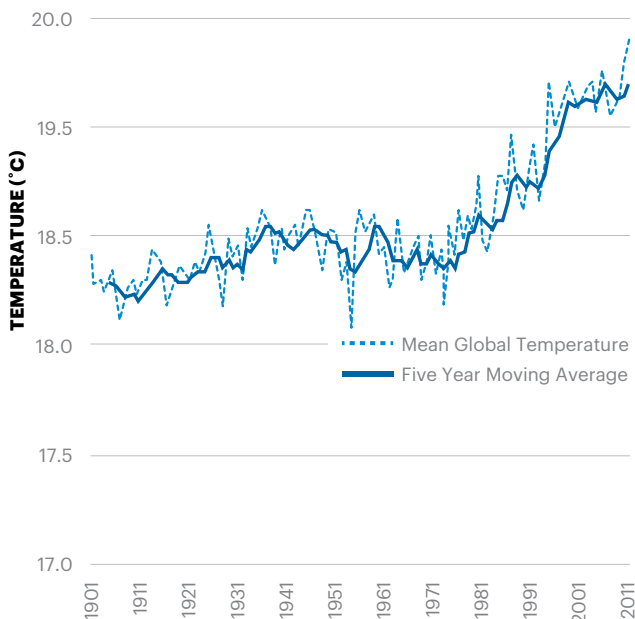
CLIMATE TRENDS

As shown in Figure 2.27, temperatures have increased over the past 30 years. The US National Aeronautics and Space Administration and the US National Oceanic and Atmospheric Administration have confirmed that the global temperatures of the past five years are the hottest on record, reflecting an ongoing trend of warming. Recent estimations place 2018 at approximately 1 degrees celsius

FIGURE 2.27

Mean global temperature, 1901-2015

From 1901 to 2015, the global temperature increased by 1.21 degrees Celsius. The increase during the 15-year period from 2000 to 2015 accounted for 38 per cent of the total rise.



Source: Frederick S. Pardee Center for International Futures

TRENDS IN PEACEFULNESS

The world is considerably less peaceful now than it was in 2008, with the average GPI score deteriorating by 3.78 per cent over the last decade. Peacefulness has declined year-on-year for seven of the last ten years, largely driven by deteriorations in the domains of *Ongoing Conflict* and *Safety and Security* – the two GPI domains likely to be further affected by climate-change induced conflict.

Of the eleven *Safety and Security* indicators in the GPI, nine deteriorated on average between 2008 and 2019, with the worst deterioration being *terrorism impact*, following the rise of ISIS and Boko Haram, escalating conflicts in the Middle East, and the rising levels of terrorism in Europe.

Inter-state armed conflicts have largely given way to internal armed conflicts over the past 50 years. In the post-World War II period, Africa, the Middle East, and Latin America faced higher levels of extra-state and internal conflict than Europe, many of which have persisted into the present day, especially in the Middle East.

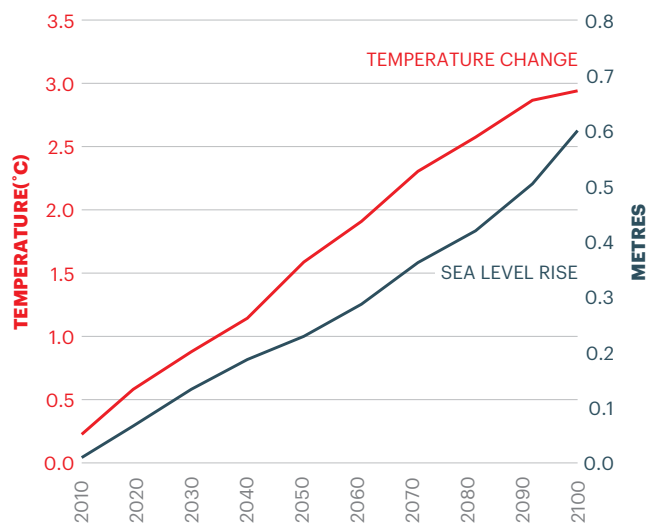
Refugees made up almost one per cent of the global population in 2017 for the first time in modern history, at a rate 12 times higher

warmer than the 1850-1900 pre-industrial average, with greenhouse gas concentrations such as carbon dioxide, methane and nitrogen oxide reaching record highs of 146, 257 and 122 per cent of pre-industrial levels, respectively.⁸ The mean global sea level rose 3.7 millimetres in 2018 when compared to the prior year.⁹ As shown in Figure 2.28, the average global temperature and sea level are expected to continue to rise in coming years.

FIGURE 2.28

Global mean temperature and sea level rise projections, 2010-2100

Median sea level is expected to increase by 0.23 metres with respect to the 1986-2004 average by 2050, at an almost threefold increase from the expected 2020 median value.



Source: IPCC Working Group I, Third Assessment Report

Note: The projected sea level rise is based on the IPCC SRES A1B Scenario which assumes a more integrated world with a balanced use of resources

than in 1951. The number of refugees has been increasing steadily since the 1970s, but began to rise dramatically in the early 2000s. There were 68 million refugees and internally displaced people in 2016, a rate of 910 people per 100,000 or 1 out of every 110 people on the planet. The increase in displacement over the last decade primarily occurred in the Middle East and Central Africa. These regions have seen prolonged conflicts with little respite, leaving many citizens with no choice but to flee their homes. While natural disasters are the primary cause of new displacements, protracted civil wars and conflicts tend to result in longer-term displacement, reflected in the considerable increase in the total number of displaced people.

The effects of climate change create resource scarcity and livelihood insecurity, giving rise to localised conflict over common resources. This can put stress on different aspects of peacefulness, such as the GPI indicators *refugees and IDPs*, *intensity of organised internal conflict*, and *number and duration of internal and external conflicts*, while *ease of access to small arms and light weapons* can facilitate or exacerbate violent conflict. Climate-induced migration and resource scarcity are expected to create millions of climate refugees, driving up the *number of refugees and internally displaced people* and affecting *relations with neighbouring countries*.

REGIONAL CLIMATE RISKS

An estimated 971 million people live in areas with high or very high exposure to climate hazards, putting them at risk for both extreme weather events and breakdowns in peacefulness in the coming decades. Of this number, 41 per cent reside in countries with low levels of peacefulness, while 22 per cent are in countries with high levels of peace.

The population considered to be living in high exposure areas is based on the climate exposure measure developed by the United States Agency for International Development (USAID), described in Box 2.1. Figure 2.29 shows the total population in areas of high exposure to multiple climate hazards by region.

The Asia-Pacific and South Asia regions collectively house twice as many people in high exposure climate zones as all other regions

combined. A risk assessment carried out by the Index for Risk Management (INFORM) in 2019, explained in Box 2.1, found that South Asia, Asia-Pacific and Central America and the Caribbean have weaker coping capacities and higher risk to natural hazards as compared to other regions.

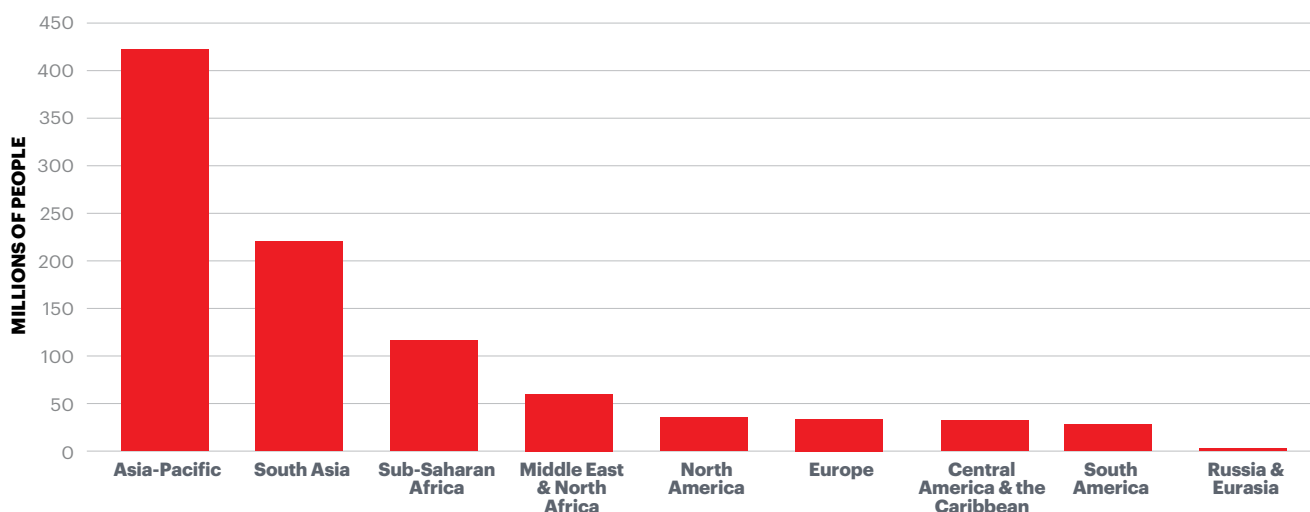
As seen in Figure 2.30, South Asia has the highest risk to natural hazards, both in terms of overall risk and risk to single climate hazards. While North America has the second highest average natural hazard risk, it also has the highest coping capacity of all regions.

Figure 2.30 compares natural risk scores by region and how well a region can cope with a natural disaster. Sub-Saharan Africa stands out due to its lack of coping capacity, while Europe has the lowest natural hazard risk score and the second highest coping capacity.

FIGURE 2.29

Total population in high risk climate zones, 2016

Over 78 per cent of the population in high and very high risk zones resides in the Asia-Pacific, South Asia, and sub-Saharan Africa regions.

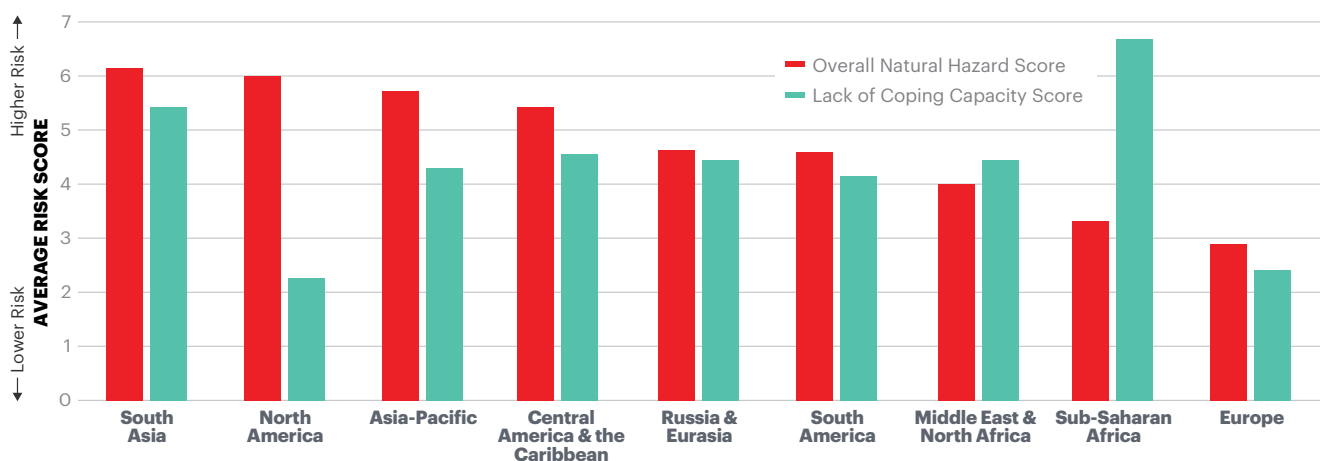


Source: USAID 2018; IEP calculations

FIGURE 2.30

Average natural hazard risk and coping capacity by region, 2018

South Asia has the highest average natural risk and single hazard scores, as well as the second lowest coping capacity of all regions.



Source: INFORM Global Risk Index 2019; IEP calculations

BOX 2.1

Climate Exposure and Natural Hazard Risk Scores

USAID Climate Exposure Measure

- A measure of country vulnerability to multiple climate hazards including exposure to cyclones, floods, wildfires and low-elevation coastal zones, each weighted at 20 per cent, as well as rainfall deviations and chronic aridity, weighted at ten per cent.
- Except for the inclusion of low-elevation coastal zones, this analysis reflects current climate hazards, rather than future vulnerability.
- “High exposure” is defined as one standard deviation or more above the global mean exposure, and “very high” exposure is defined as four standard deviations or more above the global mean.

INFORM Natural Risk Scores

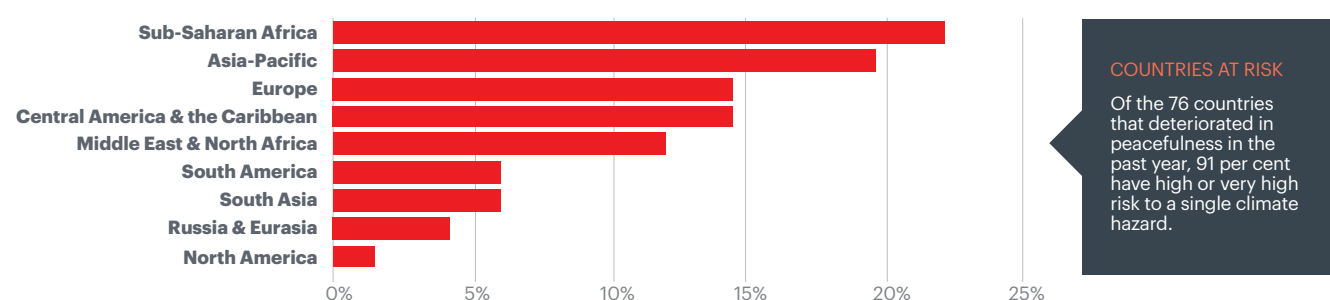
- INFORM evaluates the response capacities of countries at risk of humanitarian crises and natural disasters based on three dimensions: Hazards and Exposure, Vulnerability, and Lack of Coping Capacity.
- Data drawn from the Hazard & Exposure and Lack of Coping Capacity is used in this analysis.
- **Hazard & Exposure** refers to the likelihood and potential impact of various natural and man-made events.

- The natural hazard category evaluates the risk of earthquake, tsunami, flood, tropical cyclone and drought. In the IEP analysis, the **overall natural hazard score** is used to identify risk to multiple hazards.
- The risk to an individual climate hazard (earthquake, tsunami, flood, tropical cyclone and drought) is referred to as the **single natural hazard score**. In this analysis, the single natural hazard scores for tsunami, flood, tropical cyclone and drought are used to limit analysis to weather events impacted by climate change.
- **Lack of Coping Capacity** refers to the availability of resources that can alleviate the impact of disaster. This dimension includes Disaster Risk Reduction capability.
- For all INFORM scores, one represents the lowest risk while ten represents the highest risk.
- The INFORM dataset includes 161 of the 163 countries included in the GPI, and does not include Taiwan and Kosovo. Some of the Lack of Coping Capacity sub-scores include a smaller subset of countries due to limited data availability.

FIGURE 2.31

Regional distribution of countries with very high risk of a single climate hazard, 2018

The majority of countries with very high risk of a single climate hazard are in sub-Saharan Africa and the Asia-Pacific.



Source: INFORM Global Risk Index 2019; IEP calculations

“

Among countries with a high risk of extreme climate hazards, high peace countries tend to demonstrate stronger coping capacities than low peace countries with similar risk levels.

Asia-Pacific and sub-Saharan Africa are the two regions most vulnerable to climate-induced security risks due to a high risk of exposure to natural hazards, based on both the USAID and INFORM scoring methods. These regions include 42 per cent of the countries ranked as very high risk to a single climate hazard and 39 per cent of those ranked as high risk. They house a combined 547 million people in areas with high exposure to climate hazards.

COUNTRIES AT RISK

Almost 40 per cent of the countries included in the GPI are at high or very high risk to multiple climate hazards, and 50 per cent are at very high risk to at least one climate hazard, such as floods, tsunamis, tropical cyclones and drought, which are expected to increase in frequency and intensity due to climate change.

In the past year, 76 countries deteriorated in peacefulness, while 86 improved. Countries falling in peacefulness tend to have a lower coping capacity and if hit with a disaster can undergo a further deterioration in peace.

Of the 76 countries that deteriorated in peacefulness in the past year, 91 per cent have high or very high risk to a single climate hazard, as classified by the INFORM 2019 Global Risk Report. Additionally, 34 of the countries ranking as low and very low peace this year face a very high risk of a single climate hazard, while nine ranked as high risk.

One third of the 161 countries analysed have low risk of severe climate impacts and related conflict. As shown in green on Figure 2.32, these countries have a relatively low risk to climate hazards and relatively high levels of peacefulness.

Another third, however, have a high risk to extreme climate hazards as well as low levels of peacefulness, making them most at risk to conflicts spurred or exacerbated by a changing climate. Of these countries, 30 per cent are in sub-Saharan Africa, while Central America and the Caribbean, the Middle East and North Africa and the Asia-Pacific make up 18, 16 and 14 per cent, respectively.

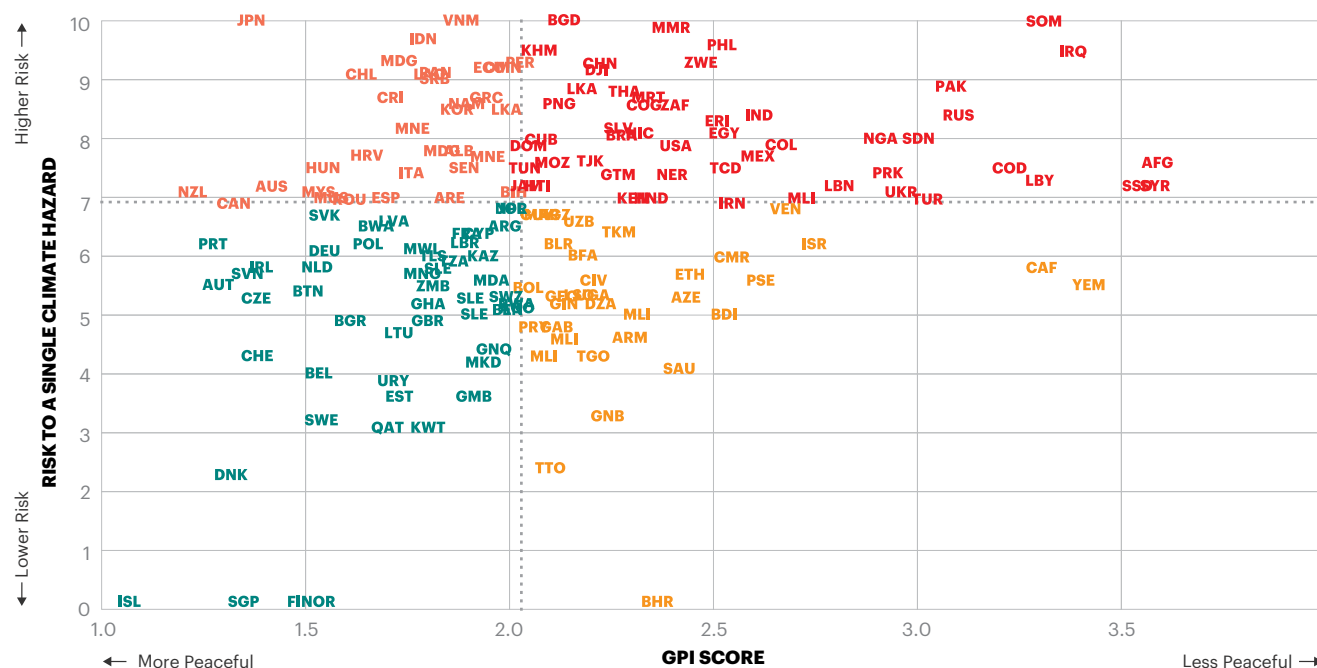
Somalia and Iraq stand out in terms of highest risk, with single hazard scores above nine and ranking amongst the five least peaceful countries.

Among countries with a high risk of extreme climate hazards, high peace countries tend to demonstrate stronger coping capacities than low peace countries with similar risk levels, as shown in Figure 2.32. For instance, Japan and Somalia both have a single natural hazard score of ten, the maximum level of risk within the INFORM index. However, Japan, a very high peace country, has the tenth highest coping capacity of all recorded countries, while Somalia, a country with very low peace, has the second lowest coping capacity. A low ability to address hazards yields more opportunity for tensions to overflow.

FIGURE 2.32

GPI scores vs. risk to a single natural hazard, 2018

One third of the countries included in the Global Peace Index are at high risk to an extreme climate hazard and have medium to low levels of peace.

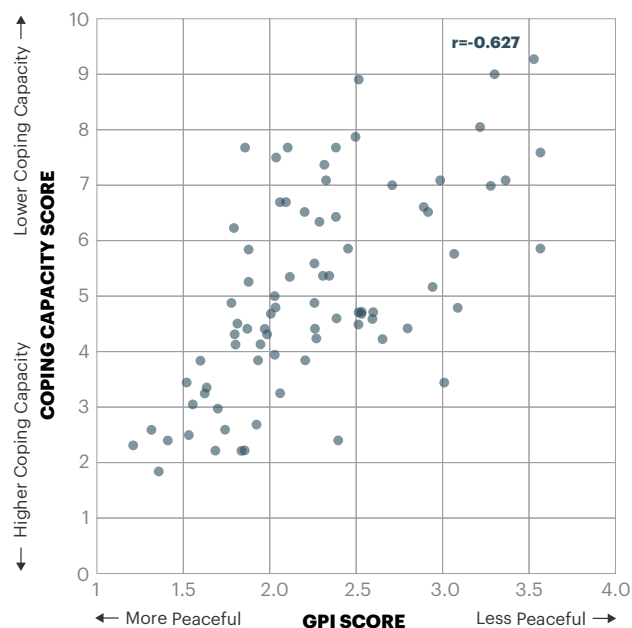


Source: INFORM Global Risk Index 2019; IEP

FIGURE 2.33

GPI score vs. coping capacity of countries at high risk to a natural hazard, 2018

Of the countries within the top 50 per cent in terms of risk to an extreme climate hazard, those with higher levels of peacefulness tend to have a higher coping capacity.



Source: INFORM Global Risk Index 2019; IEP

Figure 2.34 shows the ten countries with the lowest levels of peacefulness and corresponding risk to an extreme climate hazard. In Afghanistan, Somalia and Syria, drought is of primary concern, while Libya and Yemen face high risk of tsunamis. Russia, South Sudan, Iraq, the Democratic Republic of the Congo and the Central African Republic are at highest risk of severe flooding.

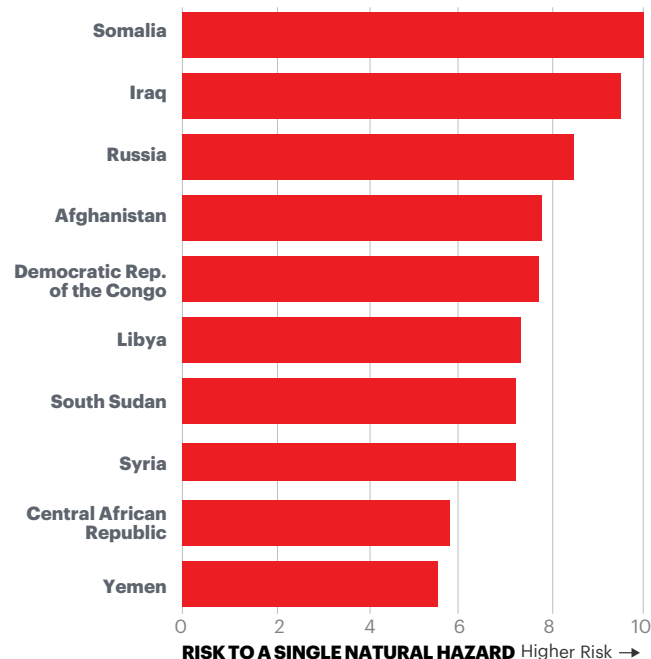
As shown in Figure 2.35, the INFORM 2019 Global Risk report places the Philippines, Japan, Bangladesh, Myanmar, China, Indonesia, India, Vietnam and Pakistan as the nine countries with the highest risk of multiple climate hazards. They are followed by a five-way tie between Iran, Somalia, Peru, Mexico and the United States of America, which all received a natural hazard score of seven.

Japan, Bangladesh, Myanmar, Vietnam, the Philippines,

FIGURE 2.34

10 least peaceful countries and corresponding risk of climate hazards, 2018

Somalia, the sixth least peaceful country, has the highest risk of drought of all recorded countries.



Source: INFORM Global Risk Index 2019; IEP calculations

Indonesia, China and Somalia also rank within the ten countries most at risk to a single climate hazard. Of these countries, the Philippines, Myanmar, India, Iran and Mexico rank as low peace and Pakistan and Somalia rank as very low peace.

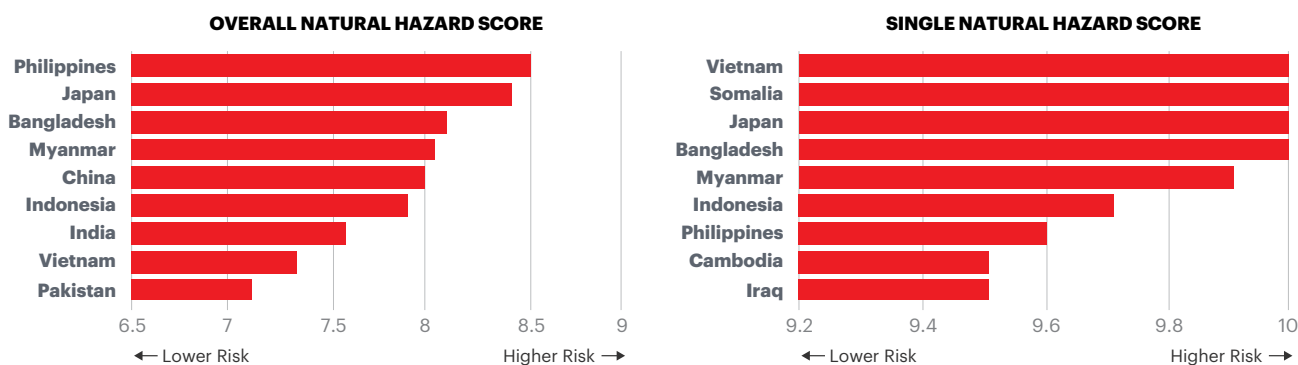
China, Bangladesh, and India, score in the bottom half of the GPI and have significant exposure to climate hazards, with 393 million people in high climate hazard areas.

Eight of the 25 least peaceful countries have over ten per cent of their population in areas of high risk to multiple climate hazards, or a total of 103.7 million people. The Philippines, the Democratic Republic of the Congo, Mexico and Nigeria are particularly vulnerable, with 47, 26, 24 and 24 per cent of their populations in areas of high exposure to climate hazards, respectively, and GPI internal peace scores above three.

FIGURE 2.35

Countries with highest risk of climate hazards, 2018

Six of the nine countries with the highest natural hazard risk scores are in Asia-Pacific.



Source: INFORM Global Risk Index 2019; IEP calculations

HOW CLIMATE INTERACTS WITH CONFLICT

Climate change amplifies the risks of breakdowns in peacefulness by acting as a threat multiplier. While climate change doesn't automatically lead to higher levels of violence, climate pressures adversely impact resource availability, affect population dynamics, and strain societal institutions, which affect socioeconomic and political stability.

The relationship between changing climates and armed conflict is complex. It does not always take the same form, but the research is clear that changes in the natural environment impose stress on human societies. Similarly, violence and unrest weaken institutions, impeding adaptation and resilience-building, making society more vulnerable to climate shocks.

This cycle suggests that political and socioeconomic factors will continue to be the primary sources of internal strife and that climate change will serve as a risk multiplier. This is especially true in countries that are already low or declining in peacefulness.

The remainder of this section discusses the kind of conflicts that can arise from livelihood insecurity and displacement caused by climate change.

LIVELIHOOD INSECURITY

Drought or the loss of arable land can lead to severe food insecurity and loss of livelihoods. Periods of drought in Kenya sparked clashes over water between pastoralists and farmers, and water shortages in India yielded conflicts between neighbouring states.¹⁰ Potential for larger interstate conflicts over resources that traverse borders, such as river basins, is also of concern.

IPCC predictions of a 1.5 degrees celsius temperature increase by 2050 would result in 243.3 million people, or four per cent of the world's population, experiencing new or aggravated water scarcity due to changes in levels of runoff.¹¹ Predictions of a 2 degrees Celsius increase by 2050 would result in 486.6 million, or eight per cent of the population, being exposed to new or aggravated water scarcity.^{12,13}

The MENA region is currently the most water-scarce region and at highest risk for increased scarcity. MENA is found to have the highest percentage of high to extremely high risk catchments, with 22 per cent of catchments ranked as extremely high risk and 50 per cent ranked as high risk. South Asia and sub-Saharan Africa follow, with 83 and 54 per cent of their catchments ranked between medium and extremely high risk, as identified in Figure 2.36.

In the future, more extreme changes in rainfall patterns are likely for the African continent. Warming on the African continent has increased by 0.5 degrees celsius or more in the last century, and the mean annual temperature is expected to increase by 2 degrees Celsius by the end of the 21st century. The United Nations Environmental Programme projects that almost all sub-Saharan African countries will be water scarce by 2025.

BOX 2.2

Aqueduct Water Risk Scoring

- A **catchment** is a unit used to measure an area of water. It refers to an area of land that drains to a single outlet point such as a river, bay or other body of water.
- The **Water Risk Score** is developed for each catchment. It is based on an evaluation of 12 indicators that measure the risk of deterioration in water quantity and its quality that could impact short or long term water availability, as well as the extent of regulatory

change and potential for conflicts regarding water issues.

- Each catchment is ranked as having extremely high, high, medium to high, low to medium and low water risk.
- Overall country and regional risk levels are evaluated based on the number of catchments in each risk level.

Source: World Resource Institute

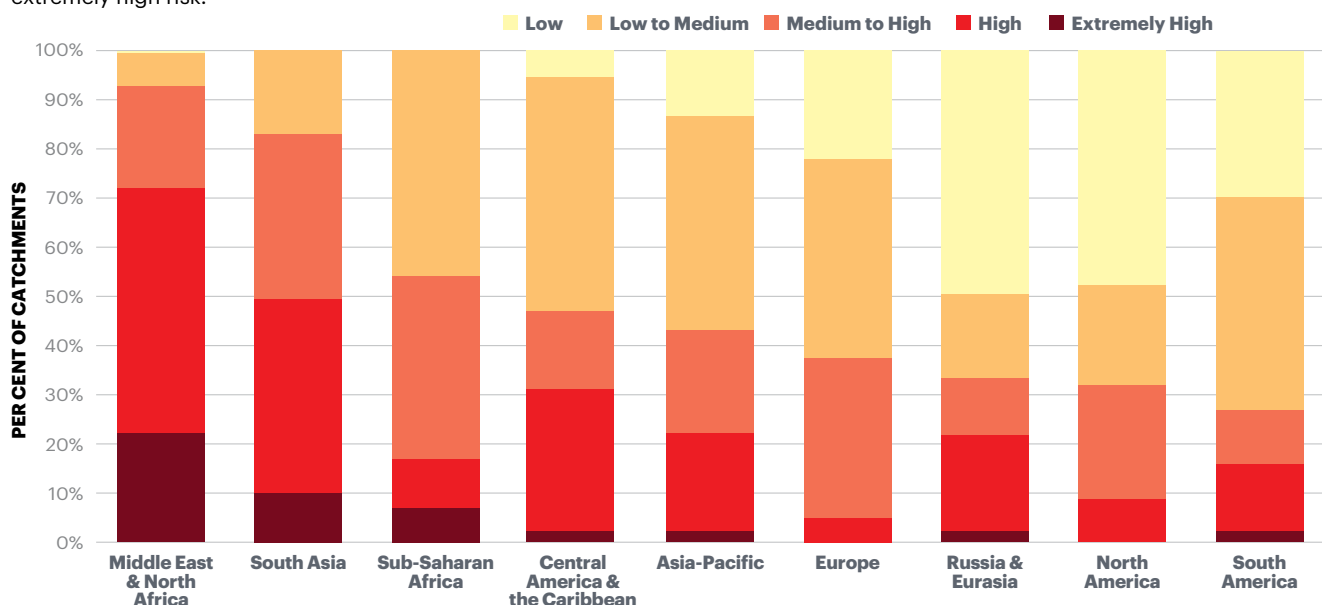


The United Nations Environmental Programme projects that almost all sub-Saharan African countries will be water scarce by 2025.

FIGURE 2.36

Water-related risk by region, 2014

Water-related risks are highest in the Middle East and North Africa, where almost a third of catchments were rated to be extremely high risk.



Source: WRI; IEP calculations

Note: Data collected from WRI Aqueduct Project

Increased water scarcity leads to higher vulnerability in agricultural systems, reduced crop productivity and growing food and livelihood security. As shown in Figure 2.38, tensions over scarce water resources resulted in increasing numbers of water-related disputes in 32 countries across Europe, MENA and sub-Saharan Africa, the three regions covered by the Water-Related Intrastate Conflict and Cooperation (WARICC) dataset.

Fortunately, most of these disputes are resolved cooperatively, indicating that changes in climate and resources do not inevitably lead to conflict. Figure 2.37 documents the average Water Events Scale (WES) rating of 32 countries included in the WARICC dataset. This scale evaluates the intensity of either conflict or cooperation in each water-related dispute, as explained in Box 2.3.

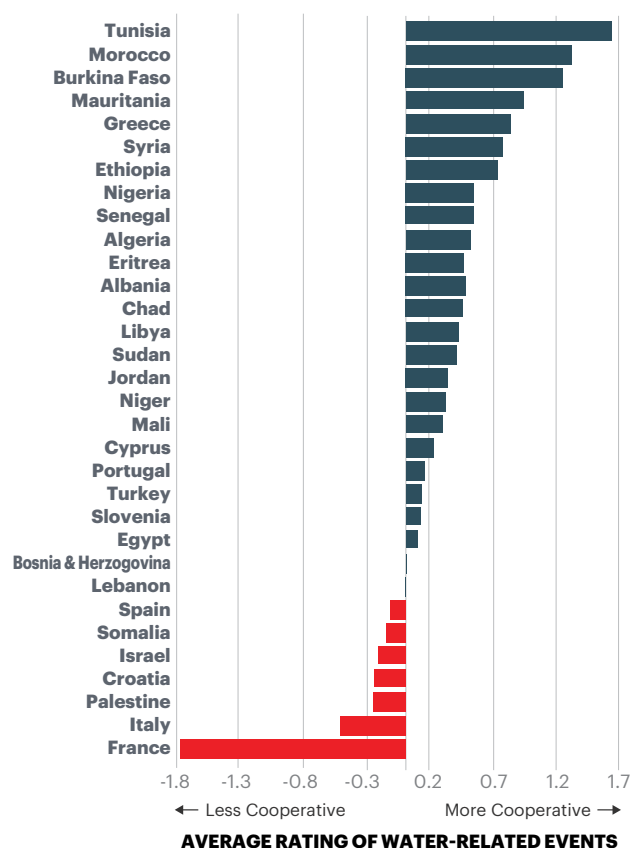
Of 32 countries included in the dataset, 25 averaged a positive WES rating for the measurement period of 1997 to 2009, and only seven had a negative average rating. A positive score means that countries are more likely to cooperate than fall into conflict. Tunisia had the highest average intensity of cooperative events, with a score of 1.6. Tunisia recorded 32 instances of cooperative water events, mainly involving cases of international cooperation over water resources and investment in projects aimed at protecting the water supply.

Comparing events over time, cooperative events consistently outweighed conflict events for the period measured, from 1997 to 2009, as shown in Figure 2.38. However, over the last three years of the dataset (2007 to 2009) a greater share of events took on conflictual tones, with some of them leading to violence. In 2007, 71 per cent of the total 462 water-related disputes were addressed positively and cooperatively. By 2009, this figure had fallen to 58 per cent.

FIGURE 2.37

Average Water Events Scale (WES) rating by country, 1997-2009

78 per cent of the recorded countries averaged positive WES ratings, reflecting a tendency towards cooperative handling of water-related disputes.



Source: WARICC Dataset 2012; IEP calculations

BOX 2.3

WARICC Water Events Scale (WES)

- Each water-related event is ranked on a scale of -5 to +5, where -5 refers to the highest intensity of a “conflict event” and +5 refers to the highest intensity of a “cooperative event.”
- “Cooperative events” produce or are likely to produce significant improvements in the preservation of water resources. Included in this category are instances of the adoption of formal commitments to improve water

resources, government initiatives in water sectors and public support for protecting water resources.

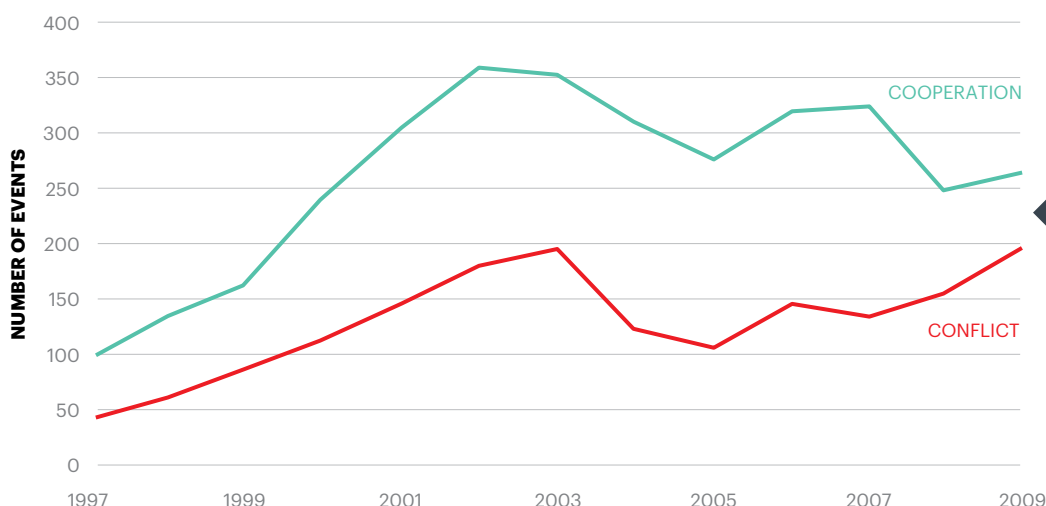
- “Conflict events” are characterised by physical violence, intra-state and inter-state tensions that may affect water resources and domestic incidents that result in or are likely to result in a deterioration of water resources.

Source: World Resource Institute

FIGURE 2.38

Water-related disputes in Europe, sub-Saharan Africa and the Middle East and North Africa, 1997-2009

Water-related cooperative events reached a high point in 2002, with 360 recorded events.



Source: WARICC Dataset 2012; IEP calculations

CLIMATE COOPERATION

13pts

In 2007, 71 per cent of the total 462 water-related disputes were addressed positively and cooperatively. By 2009, this figure had fallen to 58 per cent.

Sub-Saharan Africa had the highest number of cooperative events of the three regions from 2002 to 2009, although it follows the broader trend of declining cooperation and rising conflict events. In Somalia, 273 people died in skirmishes directly involving water resources from 2002 to 2009, a period in which the country underwent four major droughts. In Ethiopia, six clashes over water resources claimed the lives of 220 people in the same period.

A separate analysis found that in Mandera, Kenya, dozens of people were involved in conflicts over water after an intense drought in 2008. Over 160 people died in clashes over water from January to August in 2009. Additionally, the UN has cited water and land scarcity as contributors to the conflicts in West Pokot and Turkana.¹⁴

Across the three regions, the total number of water disputes tripled from 1997 to 2009. While the majority of these disputes were resolved without violence, instances of water-related conflict rose over 400 per cent from 1997 to 2009, with net increases in the Middle East and North Africa and sub-Saharan Africa outweighing declining numbers in Europe.

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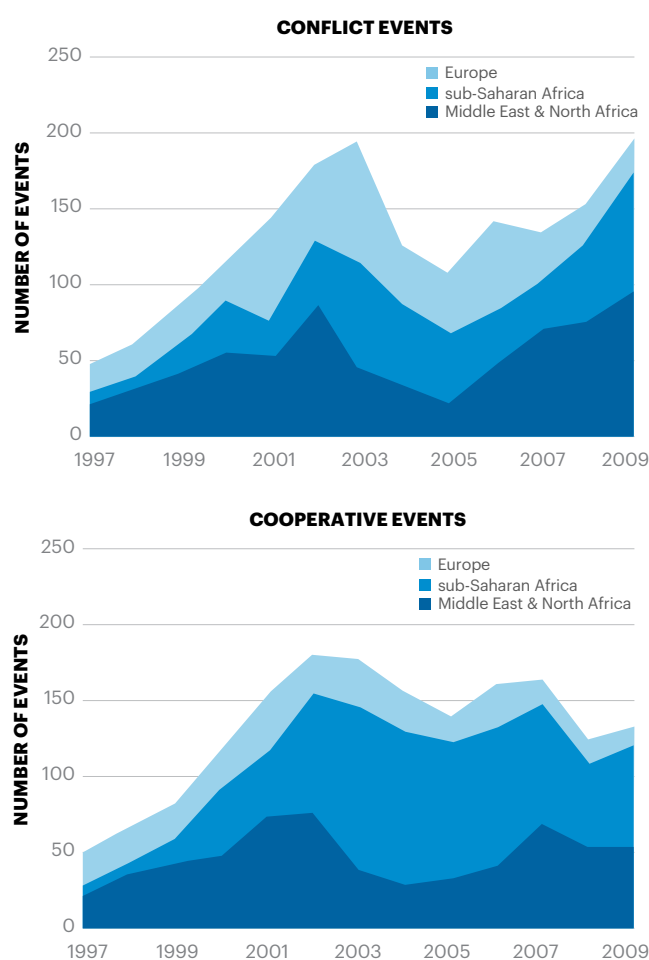
Across the three regions, the total number of water disputes tripled from 1997 to 2009.

Regions lacking international agreements over water resources are particularly at risk. Figure 2.40 breaks out the rise in water-related conflicts in MENA. In this region, growing populations, poor water management, and increased use of shared water resources have exacerbated environmental vulnerability. Tensions over shared resources are evident on the Tigris and Euphrates rivers, where upstream dams in Turkey are leaving the downstream countries of Iraq, Syria and Iran increasingly water-scarce.¹⁵ While the number of interstate armed conflicts over shared rivers is small, this could change in coming years with heightened water scarcity and increased competition for water and river resources.

FIGURE 2.39

Water conflicts and cooperation by region, 1997-2009

In 2009, the second lowest number of water-related conflict events was recorded in Europe, while both sub-Saharan Africa and the Middle East and North Africa regions reached record highs.



Source: WARICC Dataset 2012; IEP calculations

Competition over scarce land and water resources has been linked to conflict among pastoral and agricultural communities.¹⁶ In sub-Saharan Africa, the effects of loss of arable land due to drought and chronic aridity have culminated in conflict in the past.

Similarly, Sudan has been affected by tensions over land, prior to its recent overall improvements in peacefulness. Desertification has increased by upwards of 100 kilometres and 12 per cent of the forests have been lost in the past 15 years.¹⁷ In Northern Darfur, precipitation decreased by one-third in the last 80 years.¹⁸

Figure 2.41 shows that water scarcity and land scarcity related conflicts increased from one in 2000 to 30 in 2009.

The impacts of a lack of water has also affected conflict dynamics in Nigeria. Lake Chad, a major source of fishing and farming livelihoods, lost 90 per cent of its surface area in the past 40 years due to climate change and environmental mismanagement. Resultant unemployment and related food insecurity contributed to Boko Haram's successful recruitment of unemployed youths in the area.¹⁹

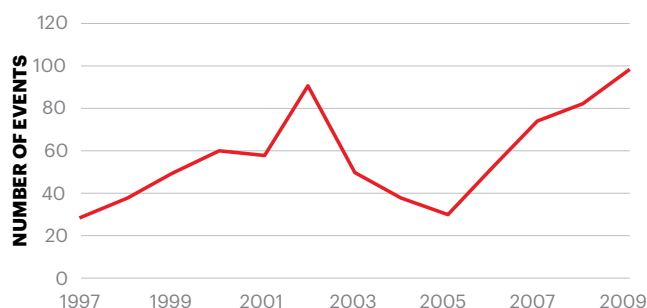
Volatility in food prices is also a key potential stressor that can increase a country's fragility. In countries where there are fragilities in livelihoods and inequalities, sudden rises in food prices can increase the number of hungry people and the levels of hardship, whereas sudden price falls can undermine subsistence livelihoods and make local markets uncompetitive.

Projections of increased intensity and length of droughts on the African continent pose concerns of hunger triggering violence or being used as a weapon of war. One study of violent uprisings in Africa found that food insecurity coupled with a lack of state capacity led to increased episodes of violent conflict between 1991 and 2011.²⁰ The political control and management of food, energy, water and agriculture largely determines the prevalence of food insecurity due to climatic variables and the resultant potential for conflict.

FIGURE 2.40

Water conflicts in the Middle East and North Africa, 1997-2009

The number of water-related disputes in MENA increased four-fold from 2005 to 2009.

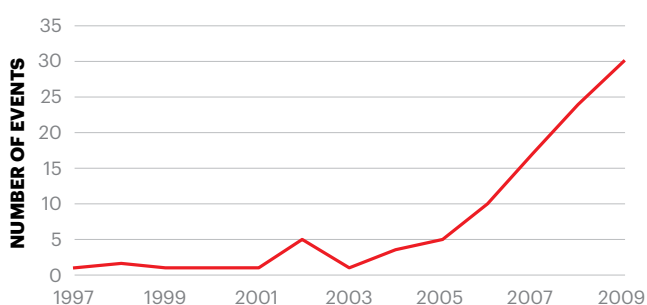


Source: WARICC Dataset 2012; IEP calculations

FIGURE 2.41

Conflict events linked to water scarcity in Sudan, 2000-2009

The number of water-related armed conflicts in Sudan increased steadily from 2003 to 2009.



Source: WARICC Dataset 2012; IEP calculations

DISPLACEMENT AND MIGRATION

There is a strong relationship between extreme weather events and displacement. In Ethiopia, droughts in the mid 1970s and 1980s and subsequent famines led to waves of migration from drought-stressed areas, both voluntary and government-forced.²¹ In this case, both climatic and political factors impacted displacement and international migration. As a result of this instability, violence and insecurity increased in neighbouring countries, which further impacted Ethiopia.

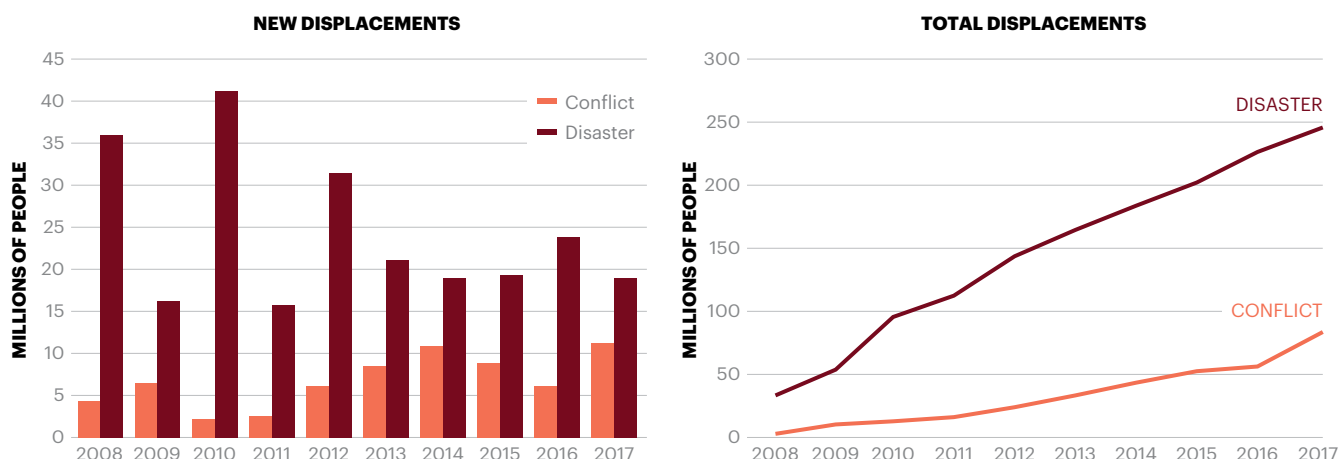
In 2017, 18.8 million people were estimated to be displaced due to natural disasters globally, Figure 2.42 shows new and cumulative displacement for both natural disasters and violent conflict.

Figure 2.43 shows the regional risks to four natural hazards impacted by climate change. On average, every region is at highest risk of either extreme flooding or tsunamis. In Russia and Eurasia, MENA and sub-Saharan Africa, this is followed by drought.

FIGURE 2.42

Displacements due to conflict and natural disasters, 2008-2017

New disaster displacements reached 18.8 million in 2017, while conflict and violence accounted for 11.7 million new displacements.

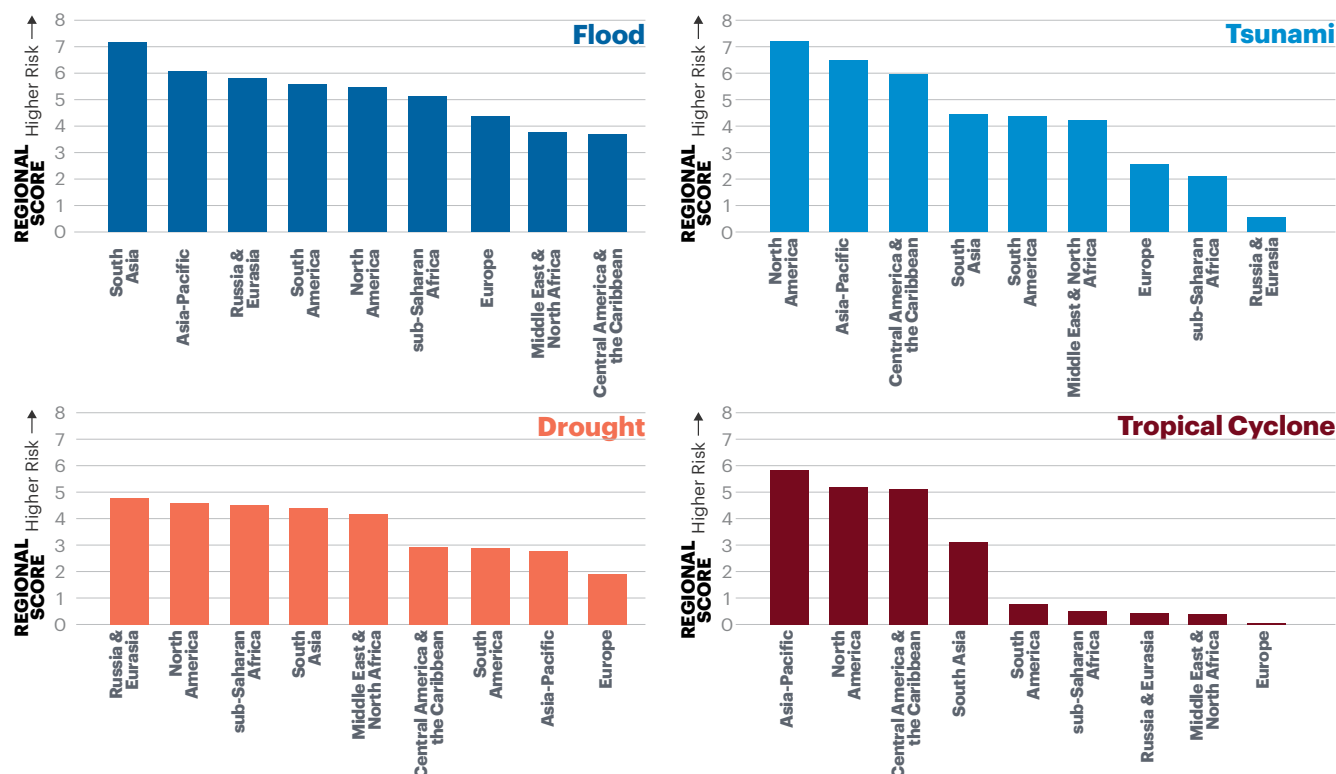


Source: IDMC

FIGURE 2.43

Regional averages of single hazard scores, 2018

Floods and tsunamis are the greatest risk, on average, faced by every region.



Source: INFORM Global Risk Index 2019; IEP calculations

Floods and storms have been the main contributor to weather-related displacement during the past ten years, as shown in the breakdown of new displacements in Figure 2.44.

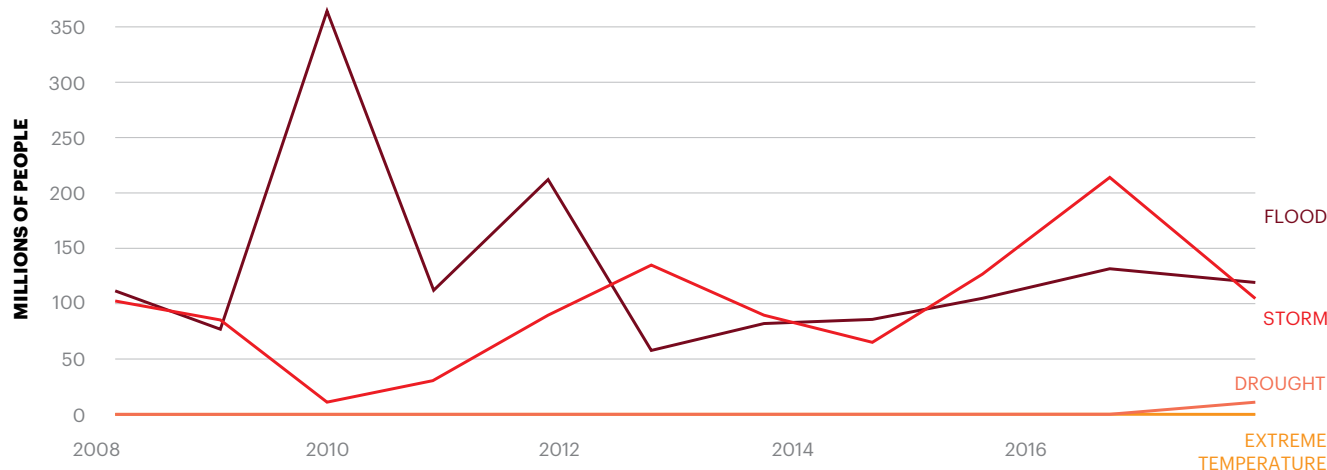
From 2008 to 2016, no new displacements were recorded by the

Internal Displacement Monitoring Centre as a result of drought, but in 2017, drought in Burundi, Ethiopia, Madagascar, and Somalia resulted in the displacement of more than 1.2 million people.

FIGURE 2.44

New displacements by weather disaster, 2008-2017

Since 2009, storms and floods have accounted for more than 75 per cent of all climate-related displacements.



Source: IDMC

By 2050, climate change is estimated to create up to 86 million additional migrants in sub-Saharan Africa, 40 million in South Asia and 17 million in Latin America as agricultural conditions and water availability deteriorate across these regions.²³ Empirical evidence suggests that people living in less developed countries without the ability to mitigate problems associated with climate change are those most likely to migrate and that this migration may cause increased conflict in receiving areas.²⁴

Syria serves as an often cited example of how a climate variable can intensify existing social and political grievances leading to unrest. From 1999 to 2011, approximately 60 per cent of Syrian land underwent two long-term droughts. About 75 per cent of farmers had total crop failure, and in the northeast, farmers lost 80 per cent of their livestock. This led to extreme rural to urban migration, with an estimated 1.3 to 1.5 million people migrating to urban centres by 2011. In a 2011 World Bank survey in of Syrian migrants, 85.25 per cent of respondents used migration as an “adaptation strategy.”²⁵

The livelihoods of more than five million small-scale farmers in Mexico were negatively impacted by climate-related variables, namely drought from 2002 to 2012. The overarching response was both internal migration to the slums of Mexico City, Guadalajara,

and Monterrey and international migration to the United States.²⁶

The implications of the upsurge in migrants on peacefulness is mixed. Projections often emphasise outmigration, but according to past trends, climate migration will likely be largely internal rather than international. Past cases of intense drought in Mali, Ethiopia and Burkina Faso and weather disasters in Bangladesh resulted in low levels of outmigration.²⁷ In these cases, the initial response of affected populations was to adapt to climate conditions, rather than opt for the more costly option of moving. Most who did migrate travelled a short-distance and for a short time.

For example, after the 2004 tornado in Bangladesh, there was significant migration to urban areas but little outmigration.²⁸ In Dhaka’s slums, 81 per cent of migrants cited a climate-related cause as a main reason for their move.²⁹ High levels of resource scarcity and strained public resources contributed to violence in these slums, with climate refugees intensifying already present social stress.

Future rises in sea levels are projected to affect around 18 million people in Bangladesh and result in a 16 percent loss of land, displacing many coastal citizens and putting the country under high migration pressure.³⁰

CLIMATE CHANGE AND COOPERATION: THE NEED FOR POSITIVE PEACE

Positive Peace can be used as the basis for empirically measuring a country's resilience to shocks, including intense weather events, as well as its ability to adapt in the long-term. It can also be used to measure fragility and help predict the likelihood of conflict, violence and instability.

Positive Peace is defined as the *attitudes, institutions and structures* that create and sustain peaceful societies. Institutions at a local, regional and global level can mitigate climate-related conflict by creating resiliency programs and managing climate-related disputes. As discussed above, more disputes related to water management are solved cooperatively than through conflict, indicating that changes in climate can be managed well.

Countries with high levels of Positive Peace have stronger institutions, via *well-functioning governments*, sound *business environments*, equitable distribution of resources, *high levels of human capital* and good *relations with neighbours*, which all influence their ability to respond to stresses induced by climate. Thus, high Positive Peace countries are more likely to maintain stability, adapt to climate variation, and recover from shocks than

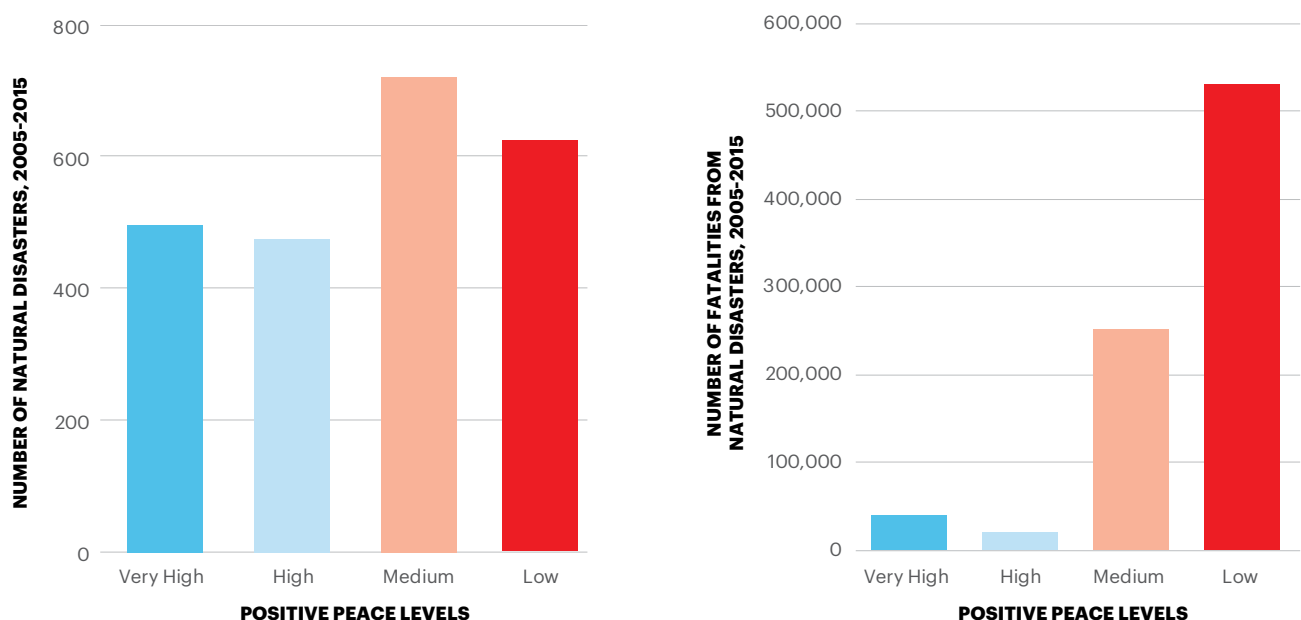
those with low levels of Positive Peace. For instance, the numbers of lives lost from natural disasters between 2005 and 2015 were 13 times larger in low Positive Peace countries than in high Positive Peace countries, a disproportionately high ratio when compared to the distribution of incidents.

Figure 2.45 shows the frequency of natural disasters and fatalities by level of Positive Peace, showing that these types of shocks occur roughly as often across the different groups of countries. However, countries at lower levels of Positive Peace experience far more fatalities as a result of natural disasters, despite a similar number of events. Countries with weak Positive Peace have a fatality ratio of 13:1 compared to high Positive Peace environments, while the frequency of natural disasters is much closer at 6:5.

FIGURE 2.45

Frequency of natural disasters and fatalities by level of positive peace, 2005-2015

Natural disasters are only slightly more frequent in low Positive Peace countries, yet they have a fatality ratio of 13:1 compared to high Positive Peace environments.



Source: EMDAT, IEP

COPING CAPACITY AND POSITIVE PEACE

At a country level, both national environmental performance and the ability to cope with climate issues are correlated to better Positive Peace scores.

High Positive Peace countries tend to be more active in pursuing policies that preserve environmental health and ecosystem vitality, as illustrated by the strong correlation between Positive Peace and Environmental Performance Index (EPI) scores in Figure 2.46. The EPI evaluates countries based on how close they are to standardised environmental policy goals, with higher scores indicative of better environmental performance. Of the top 40 Positive Peace countries, 31 ranked within the top 25 per cent of environmental performance scores. Switzerland ranks highest overall in environmental performance, while Burundi ranks the lowest.

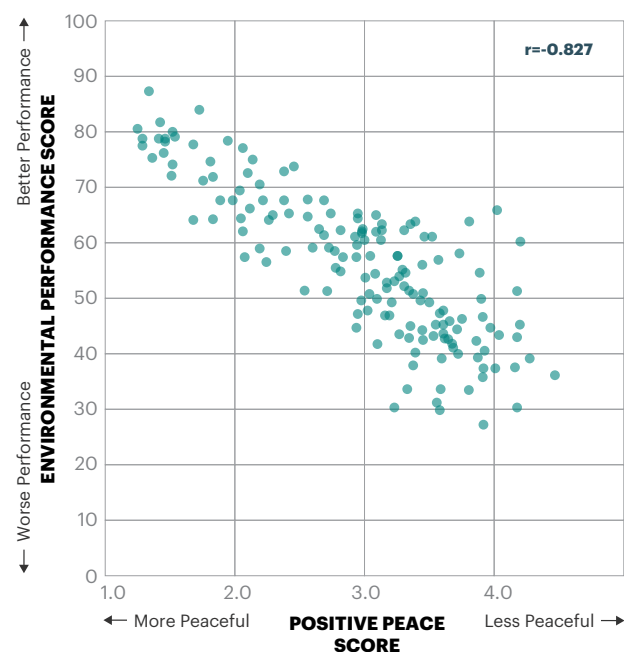
In addition to environmental sustainability, high Positive Peace countries are more equipped to cope with changing climate patterns.

Figure 2.47 compares Positive Peace scores and respective country INFORM Disaster Risk Reduction (DRR) and Physical Infrastructure scores. Positive Peace scores have a strong positive correlation both with physical infrastructure scores and DRR scores, indicating that countries with higher Positive Peace levels are more prepared to respond to natural disasters.

FIGURE 2.46

Positive Peace vs. Environmental Performance Index scores, 2018

There is a strong, positive correlation between higher levels of positive peace and better environmental performance.



Source: Environmental Performance Index; IEP Positive Peace Report 2018

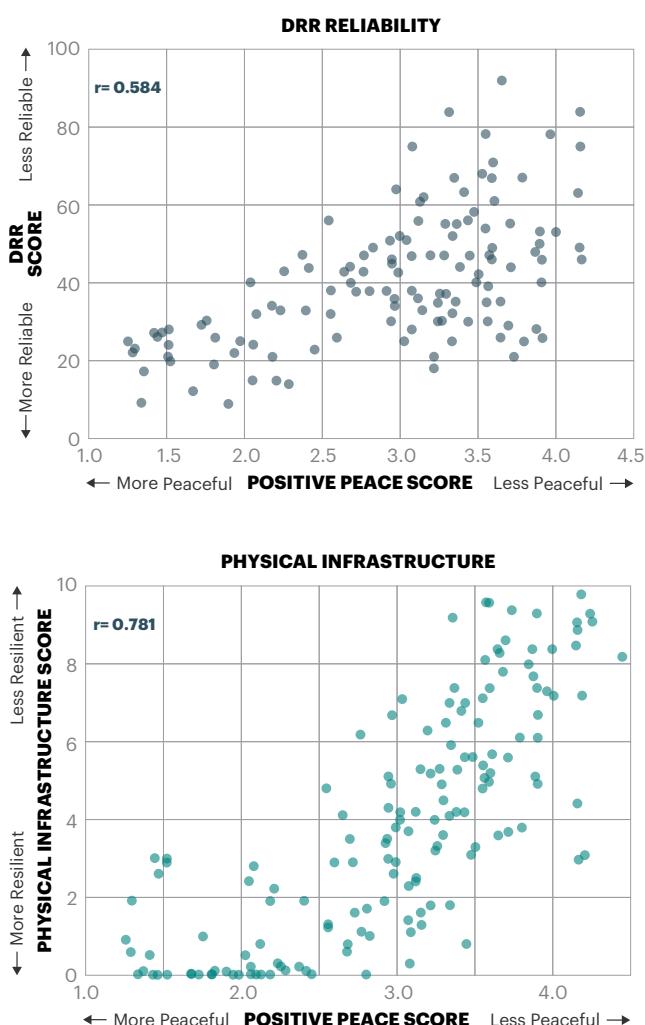
Regionally, Europe and North America are most prepared to deal with climate-related stressors. The Middle East and North Africa, sub-Saharan Africa, Asia-Pacific and Central America and the Caribbean are least prepared to respond to climate disasters as 30 per cent or more of countries in each region have below average levels of Positive Peace and below average performance in either DRR or physical infrastructure.

Central America and the Caribbean is the most vulnerable region in terms of DRR and risks to a single climate hazard, with eight of its 12 measured countries showing below average DRR and above average single climate risk scores.

FIGURE 2.47

Positive peace score and coping capacity, 2018

Countries with high levels of Positive Peace are more likely to have reliable disaster risk reduction mechanisms than those with lower levels of Positive Peace.



Source: INFORM Global Risk Index 2019

Note: INFORM provides DRR scores for 132 of the 163 GPI countries and Physical Infrastructure scores for 160

3 ECONOMIC IMPACT OF VIOLENCE

HIGHLIGHTS

- The global economic impact of violence improved for the first time since 2012, decreasing by 3.3 per cent or \$475 billion from 2017 to 2018.
- The global economic impact of violence was \$14.1 trillion PPP in 2018, equivalent to 11.2 per cent of global GDP or \$1,853 per person.
- The improvement in the global economic impact of violence is largely due to the decrease in the impact of *Armed Conflict* particularly in Syria, Colombia and Ukraine, where the impact of *Armed Conflict* decreased by 29 per cent to \$672 billion in 2018.
- The economic impact of *terrorism* recorded the largest percentage improvement in 2018, decreasing by 48 per cent from 2017.
- Syria, Afghanistan and the Central African Republic incurred the largest economic cost of violence in 2018 as a percentage of their GDP, equivalent to 67, 47 and 42 per cent of GDP, respectively.
- In the ten countries most affected by violence the average economic cost was equivalent to 35 per cent of GDP, compared to 3.3 per cent in the ten least affected.
- The economic impact of *suicide* is higher than the economic impact of the entire *Armed Conflict* domain, with the economic impact of *suicide* amounting to \$737 billion in 2018.



Results

The economic impact of violence on the global economy in 2018 amounted to \$14.1 trillion in constant purchasing power parity (PPP) terms. This is equivalent to 11.2 per cent of the world's GDP or \$1,853 per person.

In 2018, the economic impact of violence improved for the first time since 2012, decreasing by 3.3 per cent or \$475 billion. The decline in the economic impact of violence is reflective of the improvement in global peacefulness, which is discussed in section one of this report.

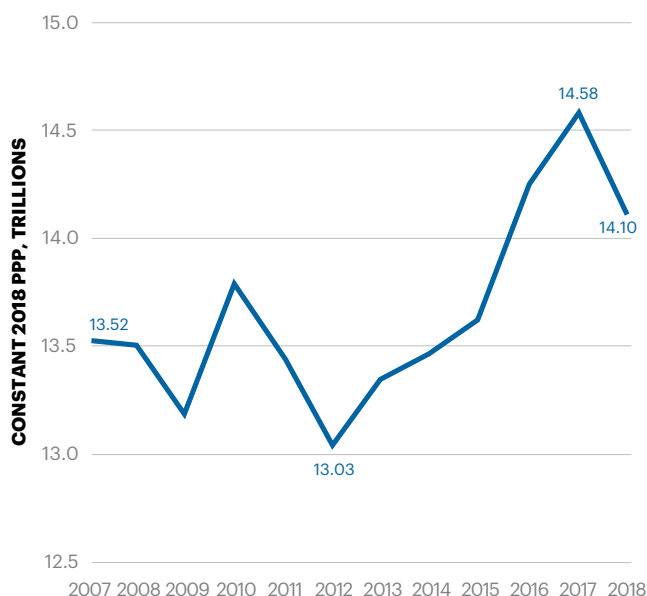
The reduction was primarily due to a decline in the costs associated with *Armed Conflict*. This improvement was mainly due to lower levels of armed conflict in Syria, Colombia and Ukraine. This also resulted in a positive knock-on effect for *refugees and internally displaced persons (IDPs)* and *terrorism*, with reductions in the costs for both.

This year's outcome marks the end of five years of rising costs of violence. The economic impact of violence rose by 11 per cent to \$14.58 trillion from 2012 to 2017. This increase coincided with the start of the Syrian war and rising violence in Libya, Yemen and other parts of the MENA region.

The defeat of ISIL in both Iraq and Syria has led to an improvement in the security situation in both countries in the past two years, resulting in a decline in the level of violence and its economic impact. Figure 3.1 shows the trend in the global economic impact of violence.

FIGURE 3.1
Trend in the global economic impact of violence, trillions PPP, 2007-2018

The de-escalation of conflicts, particularly in the MENA region contributed to the 3.3 per cent decline in the global economic impact of violence, the first decline since 2012.



Source: IEP

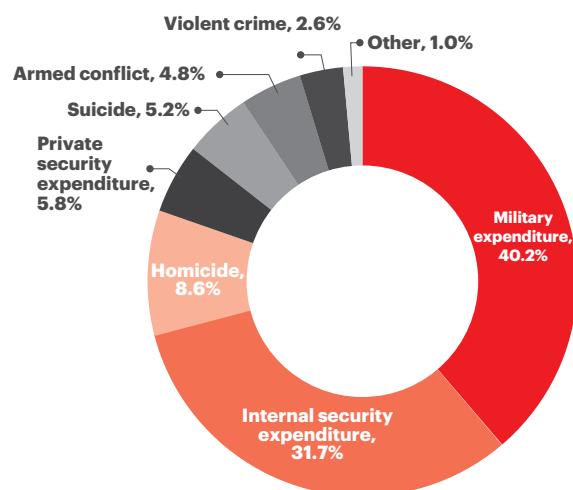
COMPOSITION OF THE ECONOMIC IMPACT OF VIOLENCE

Figure 3.2 shows the breakdown of the total economic impact of violence by category. The single largest component was global *military expenditure* at \$5.7 trillion PPP, or 40 per cent of the total economic impact of violence in 2018.

Internal security expenditure was the second largest component, comprising 32 per cent of the global economic impact of violence, at \$4.5 trillion, and is one per cent lower than the prior year. *Internal security* expenditure includes spending on the police and judicial systems as well as the costs associated with *incarceration*. The data for *internal security* spending is obtained from the International Monetary Fund government finance statistics database.

FIGURE 3.2
Breakdown of the global economic impact of violence, 2018

Government spending on military and internal security comprises approximately three-quarters of the global economic impact of violence.



Source: IEP

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In 2018, the economic impact of violence improved for the first time since 2012, decreasing by 3.3 per cent or \$475 billion.

Homicide is the third largest component of the model, at 8.6 per cent, with the economic impact increasing by three per cent in 2018.

The rise in the economic impact of *homicide* has been driven by improvements in many national economies rather than an increased *homicide rate*, which has not changed significantly. As countries grow, their per capita income increases, therefore the economic effects from violence such as homicide are larger.

The 2018 model includes the economic impact of *suicide* for the first time. Suicide is classified as self-inflicted violence by the World Health Organisation.² The economic impact of *suicide* amounted to \$737 billion in 2018 and represents 5.2 per cent of the global total, an increase of two per cent compared to the prior year. The economic cost of *suicide* is higher than that of all of the *Armed Conflict* indicators combined.

The economic impact of violent crime improved in 2018, decreasing by five per cent to \$373 billion. Violent crime consists of *violent assault* and *sexual assault*; together they make up 2.6 per cent of the total.

The largest improvement in monetary terms was for the impact of *Armed Conflict*, which decreased by 29 per cent or \$275 billion. The impact of *Armed Conflict* is comprised of six categories:

- deaths as a result of external conflict
- GDP losses from conflict
- deaths as a result of internal conflict
- refugees and IDPs
- deaths as a result of terrorism
- and injuries as a result of terrorism.

The largest percentage improvement was the economic impact of *terrorism*, which decreased by 48 per cent or \$28.5 billion.

The economic impact of *conflict deaths* and *losses from refugees and IDPs* also recorded a decline, with a decrease of 19 per cent for *conflict deaths* and 12 per cent for *losses from refugees and IDPs*.

Expenditure on *private security* is the fourth largest category in the model and comprises 5.8 per cent of the total. The smaller categories, which include *peacebuilding* and *peacekeeping* expenditures, purchases of *small arms* and the *fear of violence and insecurity* accounted for only one per cent of the total.

TABLE 3.1

Change in the economic impact of violence, 2017-2018

In 2018, the economic impact of terrorism decreased by 48 per cent from its 2017 level.

INDICATOR	2017	2018	CHANGE (BILLIONS) 2017-2018	CHANGE (%) 2017-2018
Conflict deaths	117.2	94.7	-22.5	-19%
Refugees and IDPs	384.2	337.4	-46.7	-12%
GDP losses	386.0	208.9	-177.1	-46%
Private security	864.4	816.2	-48.2	-6%
Incarceration	140.6	150.8	10.2	7%
Violent crime	394.5	373.1	-21.3	-5%

Internal security	4,355.3	4,320.5	-34.8	-1%
Small arms	9.8	9.2	-0.5	-5%
Homicide	1,183.1	1,218.9	35.8	3%
Fear	69.5	66.1	-3.4	-5%
Military expenditure	5,824.1	5,674.0	-150.1	-3%
Peacebuilding	39.4	39.2	-0.2	-1%
Terrorism	59.7	31.2	-28.5	-48%
Peacekeeping	26.1	24.8	-1.3	-5%
Suicide	723.3	737.1	13.7	2%
TOTAL	14,577.1	14,102.2	-474.9	-3%

Source: IEP

Economic impact is broken down into three categories: direct costs, indirect costs, and a multiplier effect. The direct costs associated with violence include the immediate consequences on the victims, perpetrators, and public systems including health, judicial and public safety.

The indirect costs of violence refer to longer-term costs such as lost productivity, psychological effects and the impact of violence on the perception of safety and security in society.

In addition, IEP also includes the flow-on effects from the direct costs as a peace multiplier. For more details on the peace multiplier refer to Box 3.1 on page 64. Table 3.2 provides details of the economic impact of violence broken down by direct and indirect costs.

TABLE 3.2

Composition of the global economic impact of violence, 2018

INDICATOR	DIRECT COSTS	INDIRECT COSTS	THE MULTIPLIER EFFECT	TOTAL
Conflict deaths	47.3		47.3	94.7
Refugees and IDPs		337.4		337.4
GDP losses		208.9		208.9
Private security	408.1		408.1	816.2
Violent crime	55.6	261.9	55.6	373.1
Internal security	2,235.7		2,235.7	4,471.4
Small arms	4.6		4.6	9.2
Homicide	141.7	935.5	141.7	1,218.9
Fear		66.1		66.1
Military expenditure	2,837.0		2,837.0	5,674.0
Peacebuilding	19.6		19.6	39.2
Terrorism	3.6	23.9	3.6	31.2
Suicide	1.0	735.0	1.0	737.1
Peacekeeping	12.4	24.8	12.4	24.8
TOTAL	5,766.7	2,568.8	5,766.7	14,102.2

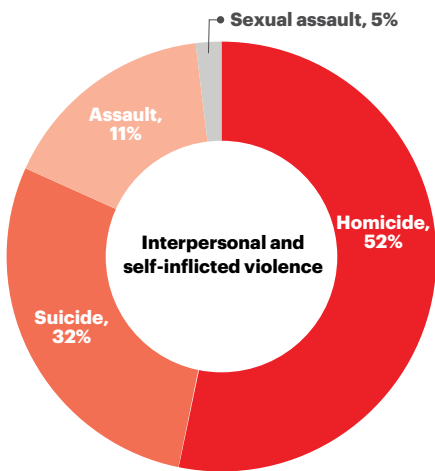
Source: IEP

IEP's economic impact of violence model includes domains of both *Interpersonal and Self-Inflicted Violence* and *Armed Conflict*. *Interpersonal Violence*, such as *violent assault* and *homicide* are caused by violence committed by individuals or organised criminal activities.

In 2018, *Interpersonal and Self-Inflicted Violence* amounted to \$2.33 trillion. Figure 3.3 provides a detailed breakdown of the economic impact of *Interpersonal and Self-Inflicted Violence* while Figure 3.4 details the breakdown of *Armed Conflict*.

FIGURE 3.3
Breakdown of the global economic impact of Interpersonal and Self-Inflicted Violence, 2018

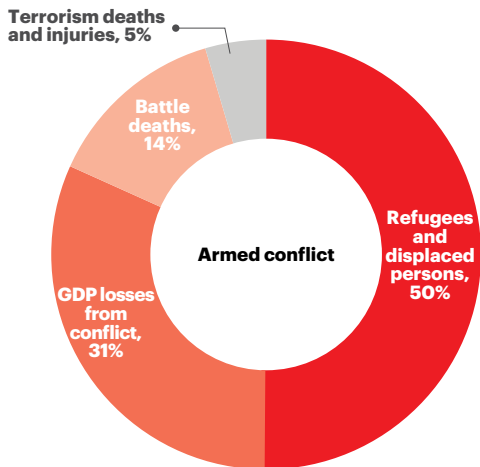
Homicide comprises more than half of the global economic impact of interpersonal violence.



Source: IEP

FIGURE 3.4
Breakdown of the global economic impact of Armed Conflict, 2018

Forced displacement accounts for half of the global economic impact of armed conflict.



Source: IEP

THE TEN COUNTRIES WITH THE HIGHEST ECONOMIC IMPACT

The economic cost of violence for the ten most affected countries ranges from 22 to 67 per cent of their GDP. These countries have high levels of armed conflict, large amounts of internally displaced persons, high levels of interpersonal violence, or large militaries.

Conflict-affected countries - Syria, Afghanistan, Iraq, Central African Republic, Somalia and Colombia - suffer from higher costs in the form of deaths and injuries from *conflict deaths*, *terrorism*, *losses from refugees and IDPs*, and *GDP losses from conflict*.

Cyprus is included due to the large percentage of its population that is displaced. El Salvador and Venezuela are included because of the high costs associated with higher levels of *homicide* and *violent crime*. North Korea is an exception in that the majority of its economic costs are related to the high levels of *military expenditure* relative to its GDP. Table 3.3 lists the ten most affected countries.

TABLE 3.3
Top ten countries for economic cost of violence as a percentage of GDP, 2018

In Syria, Afghanistan, and the Central African Republic, the economic cost of violence was equivalent to 40 per cent of GDP or more.

COUNTRY	ECONOMIC COST OF VIOLENCE AS PERCENTAGE OF GDP	GPI 2019 RANK
Syria	67%	162
Afghanistan	47%	163
Central African Republic	42%	157
North Korea	34%	149
Iraq	32%	159
Venezuela	30%	144
Cyprus	30%	63
Somalia	26%	158
Colombia	25%	143
El Salvador	22%	113

Source: IEP

Libya is the only country to drop out of the ten worst affected countries from last year and is now ranked 11th. This is an improvement of one place from last year. The conflict in Libya receded in 2017 leading to a decline in violence and a slight improvement in its level of peace. Venezuela replaced Libya in the ten worst affected countries because of rising levels of violence and instability in the last few years. However, Libya has recently experienced a large escalation in the battle for territorial control between different armed groups, which will likely affect its position next year.

REGIONAL COMPOSITION OF THE ECONOMIC COST OF VIOLENCE

The composition of violence varies substantially by region, as shown in Figure 3.5. The greatest variation between regions is the relative impact of *military expenditure*. This represents 59 per cent of the economic impact for the MENA region and only eight per cent in the Central America and Caribbean region.

The next biggest variation is in the *violent crime, homicide and suicide* category, which varied from 45 per cent of the regional composition in South America to four per cent in the MENA region.

Internal security expenditure also varies significantly by region. Europe and Asia-Pacific have the highest percentage, at 42 and 41 per cent respectively. The lowest spending region on *internal security* was South Asia at 20 per cent.

On average, countries in sub-Saharan Africa spend 12 times less on violence containment than Europe and five times less when compared to the Asia-Pacific region. It should be noted that higher expenditure, especially for *internal security*, would be expected in higher income countries given the higher wages and better-equipped security and judicial systems.

SPENDING ON MILITARY AND INTERNAL SECURITY

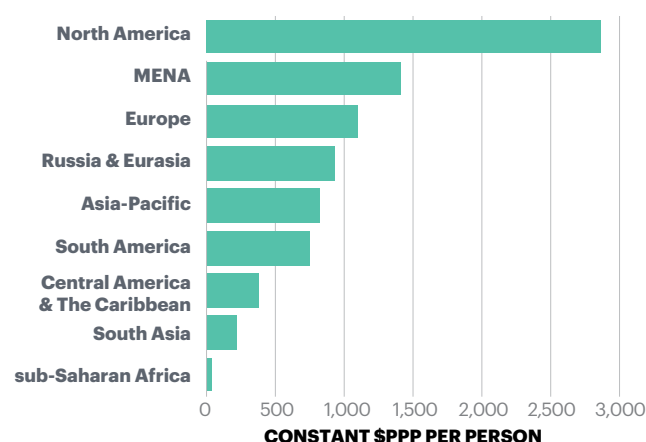
Military expenditure and *internal security* is highest in MENA

and North America, while Central America and the Caribbean, South America, and sub-Saharan Africa spend the least, as shown in Figure 3.6.

FIGURE 3.6

Per capita violence containment spending (military and internal security) by region, 2018

Per capita violence containment spending is 15 times higher in MENA than sub-Saharan Africa.

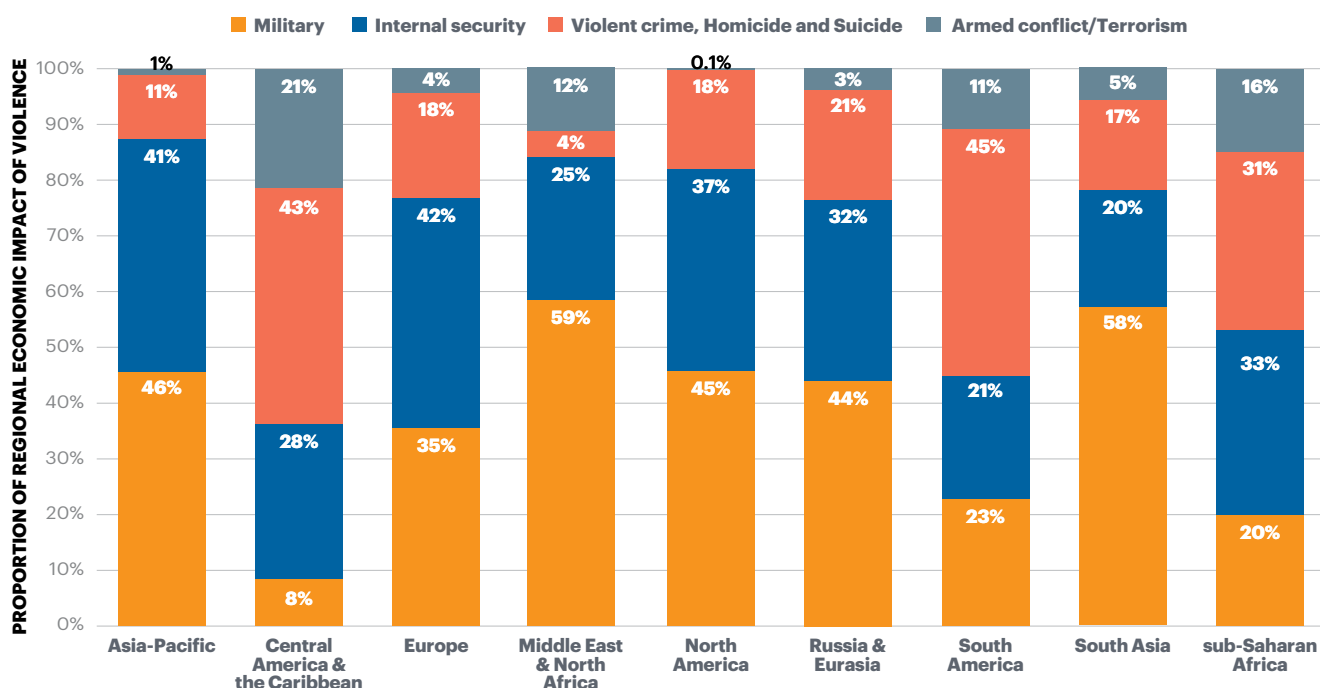


Source: IEP

FIGURE 3.5

Composition of the regional economic impact of violence, 2018

At the regional level, military expenditure accounts for between eight and 59 per cent of the economic impact of violence.



Source: IEP

Table 3.4 highlights the ten countries with the highest *military expenditure* for 2018 as a total, per capita, and as a percentage of GDP.

TABLE 3.4

Military expenditure: Total, per capita, percentage of GDP, 2018

Country	Military Expenditure (Total, \$US Billions)
USA	648.8
China	250
Saudi Arabia	67.6
India	66.5
France	63.8
Russia	61.4
UK	50
Germany	49.5
Japan	46.6
South Korea	43.1

Country	Military Expenditure (Per Capita, \$US)
Saudi Arabia	2013
USA	1986
Israel	1887
Singapore	1872
Kuwait	1738
Oman	1389
Norway	1320
Australia	1078
France	978
Bahrain	891

Country	Military Expenditure (% of GDP)
North Korea*	24
Oman	10.95
Saudi Arabia	10.77
Libya	10.47
Afghanistan	10.13
Palestine	8.2
Iraq	7.47
Syria	6.072
Algeria	5.27
Israel	5.07

Source: IEP

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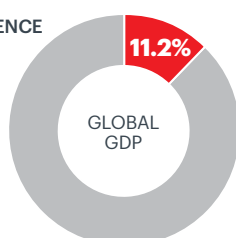
On average, countries in sub-Saharan Africa spend 12 times less on violence containment than Europe and five times less when compared to the Asia-Pacific region.

KEY FINDINGS

GLOBAL ECONOMIC IMPACT OF VIOLENCE

The global economic impact of violence was \$14.1 trillion PPP in 2018, equivalent to 11.2 per cent of global GDP, or \$1,853 per person.

 **\$1,853** OR



TEN MOST VS LEAST AFFECTED COUNTRIES

35% vs **3.3%**
AVG GDP vs AVG GDP

The average economic cost of violence was equivalent to 35 per cent of GDP in the ten countries most affected by the impact of violence, compared to 3.3 per cent in the ten most peaceful countries.

THREE MOST AFFECTED

Syria, Afghanistan and Central African Republic incurred the largest economic cost of violence as a percentage of their GDP at 67, 47 and 42 per cent of GDP, respectively.



Methodology at a glance

The global economic impact of violence is defined as the expenditure and economic effects related to “containing, preventing and dealing with the consequences of violence.” The estimate includes the direct and indirect costs of violence, as well as an economic multiplier. The multiplier effect calculates the additional economic activity that would have accrued if the direct costs of violence had been avoided.

Expenditure on containing violence is economically efficient when it effectively prevents violence for the least amount of spending. However, spending beyond an optimal level has the potential to constrain a nation's economic growth. Therefore, achieving the right levels of spending on public services such as the military, the judicial system and security is important for the most productive use of capital.

This study includes two types of costs: direct and indirect. Examples of direct costs include medical costs for victims of violent crime, capital destruction from violence and costs associated with security and judicial systems. Indirect costs include lost wages or productivity from crime due to physical and emotional trauma. There is also a measure of the impact of fear on the economy, as people who fear that they may become a victim of violent crime alter their behaviour.¹

An important aspect of IEP's estimation is the international comparability of the country estimates, thereby allowing cost/benefit analysis of country interventions. The methodology uses constant purchasing power parity international dollars.

IEP estimates the economic impact of violence using a comprehensive aggregation of costs related to violence, armed conflict and spending on military and internal security services. The GPI is the initial point of reference for developing the estimates.

The 2019 version of the economic impact of violence includes 18 variables in three groups.

The analysis presents conservative estimates of the global economic impact of violence. The estimation only includes variables of violence for which reliable data could be obtained. The following elements are examples of some of the items not counted in the economic impact of violence:

- the cost of crime to business
- judicial system expenditure
- domestic violence
- household out-of-pocket spending on safety and security
- spillover effects from conflict and violence.

The total economic impact of violence includes the following components:

- 1. Direct costs** are the cost of violence to the victim, the perpetrator, and the government. These include direct expenditures, such as the cost of policing, military and medical expenses.
- 2. Indirect costs** accrue after the violent event and include indirect economic losses, physical and physiological trauma to the victim and lost productivity.
- 3. The multiplier effect** represents the flow-on effects of direct costs, such as additional economic benefits that would come from investment in business development or education instead of containing or dealing with violence. Box 3.1 provides a detailed explanation of the peace multiplier used.

TABLE 3.5

Variables included in the economic impact of violence, 2019

SECURITY SERVICES AND PREVENTION ORIENTED COSTS	ARMED CONFLICT RELATED COSTS	INTERPERSONAL AND SELF-INFLICTED VIOLENCE
1. Military expenditure	1. Direct costs of deaths from internal violent conflict	1. Homicide
2. Internal security expenditure	2. Direct costs of deaths from external violent conflict	2. Violent assault
3. Security agency	3. Indirect costs of violent conflict (GDP losses due to conflict)	3. Sexual assault
4. Private security	4. Losses from status as refugees and IDPs	4. Fear of crime
5. UN peacekeeping	5. Small arms imports	5. Indirect costs of incarceration
6. ODA peacebuilding expenditure	6. Terrorism	6. Suicide



The term **economic impact of violence** covers the combined effect of direct and indirect costs and the multiplier effect, while the **economic cost of violence** represents the direct and indirect cost of violence. When a country avoids the economic impact of violence, it realises a **peace dividend**.

BOX 3.1

The multiplier effect

The multiplier effect is a commonly used economic concept, which describes the extent to which additional expenditure improves the wider economy. Every time there is an injection of new income into the economy this will lead to more spending which will, in turn, create employment, further income and additional spending. This mutually reinforcing economic cycle is known as the “multiplier effect” and is the reason that a dollar of expenditure can create more than a dollar of economic activity.

Although the exact magnitude of this effect is difficult to measure, it is likely to be particularly high in the case of expenditure related to containing violence. For instance, if a community were to become more peaceful, individuals would spend less time and resources protecting themselves against violence. Because of this decrease in violence there are likely to be substantial flow-on effects for the wider economy, as money is diverted towards more productive areas such as health, business investment, education and infrastructure.

When a homicide is avoided, the direct costs, such as the money spent on medical treatment and a funeral, could be



A dollar of expenditure can create more than a dollar of economic activity.

spent elsewhere. The economy also benefits from the lifetime income of the victim. The economic benefits from greater peace can therefore be significant. This was also

noted by Brauer and Tepper-Marlin (2009), who argued that violence or the fear of violence may result in some economic activities not occurring at all. More generally, there is strong evidence to suggest that violence and the fear of violence can fundamentally alter the incentives for business. For instance, analysis of 730 business ventures in Colombia from 1997 to 2001 found that with higher levels of violence, new ventures were less likely to survive and profit. Consequently, with greater levels of violence it is likely that we might expect lower levels of employment and economic productivity over the long-term, as the

incentives faced discourage new employment creation and longer-term investment.

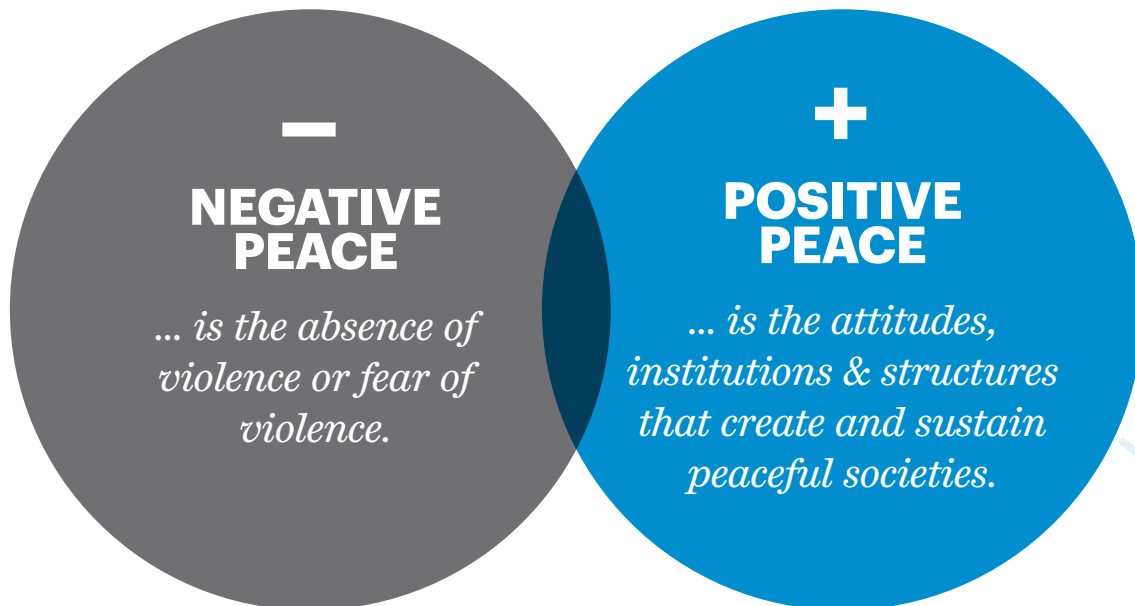
This study assumes that the multiplier is one, signifying that for every dollar saved on violence containment, there will be an additional dollar of economic activity. This is a relatively conservative multiplier and broadly in line with similar studies.

4



**POSITIVE
PEACE**

What is Positive Peace?



- +** **Positive Peace** is defined as the attitudes, institutions, and structures that create and sustain peaceful societies. These same factors also lead to many other outcomes that societies consider beneficial. Therefore, Positive Peace describes an optimum environment for human potential to flourish.
- +** **Positive Peace** has been empirically derived by IEP via the statistical analysis of thousands of cross-country measures of economic and social progress to determine what factors are statistically significantly associated with the Global Peace Index.

- +** **Positive Peace** is measured by the Positive Peace Index (PPI), which consists of eight domains. Each domain examines one aspect of socio-economic development that contributes to wellbeing and peacefulness. This framework provides a baseline measure of a country's success in building and maintaining peace. It also provides a valuable tool for policymaking, academic studies and corporate research.
- +** **Positive Peace** factors can be used as gauge for a country's resilience, or its ability to absorb and recover from shocks. It can also be used to measure fragility and to help predict the likelihood of conflict, interpersonal violence, and social instability.



The Eight Pillars of Positive Peace

IEP's framework for Positive Peace is based on eight factors. The Positive Peace factors not only sustain peace but also support an environment where human potential flourishes. They interact in complex ways, are multidimensional and are generally slow moving.

WHY IS POSITIVE PEACE TRANSFORMATIONAL?

Humanity is now facing a combination of challenges unparalleled in history. The most urgent of these are global in nature, such as climate change, decreasing biodiversity, overpopulation and forced displacement of persons. These global challenges call for global solutions and these solutions require cooperation on an unprecedented scale. The sources of many of these challenges are multidimensional, increasingly complex and cross national borders. For this reason, finding solutions to these unprecedented challenges requires fundamentally new ways of thinking.



Without peace, it will not be possible to achieve the levels of trust, cooperation or inclusiveness necessary to solve these challenges. Much less to empower international and local institutions responsible for addressing them. Therefore, peace is the essential prerequisite for the survival of humanity in the 21st century.

Without an understanding of the factors that create and sustain peaceful societies it will not be possible to develop the programmes, create the policies or understand the resources required to build peaceful and resilient societies.

Positive Peace provides a framework to understand and address the multiple and complex challenges the world faces. Positive Peace is transformational in that it is a cross-cutting factor for progress, making it easier for businesses to sell, entrepreneurs and scientists to innovate, individuals to produce, and governments to regulate effectively.

In addition to minimising interpersonal violence and the risk of conflict, high levels of Positive Peace are associated with many desirable socio-economic outcomes. These include stronger economic performance, higher standards of living, greater social inclusiveness and more effective environmental protection. Thus, Positive Peace creates an optimal environment in which human potential can flourish.

“ High levels of Positive Peace are associated with many desirable socio-economic outcomes.

Positive Peace is much more than the mere absence of violence. It represents a state where societies can thrive and develop materially, culturally and intellectually in a harmonious and stable manner. Absence of crime and conflict is not an indicator of true and sustainable peace in the same way that absence of disease is not an indicator of an individual's happiness. The study of pathology has led to numerous breakthroughs in our understanding of how to treat and cure disease. However, it was only when medical science turned its focus to the study of healthy, happy human beings that we understood what is needed for personal fulfilment: physical exercise, balanced diet, good work environment, leisure, a sense of purpose, a good mental disposition and other factors.

Seen in this light, Positive Peace can be used as an overarching framework for economic development and social advancement.

UNDERSTANDING POSITIVE PEACE

The analysis in this chapter is predicated on two different aspects of peacefulness, both being well-established concepts in peace studies – Negative Peace and Positive Peace.

IEP's interpretation of Negative Peace is the *absence of violence or fear of violence* – an intuitive definition that enables peace to be gauged more easily. Measures of Negative Peace are used to construct the GPI. The 23 GPI indicators are broken into three domains: *Ongoing Conflict*, *Societal Safety and Security* and *Militarisation*. *Societal Safety and Security* refer to internal and interpersonal aspects of violence, such as homicide, incarceration or availability of small arms. *Ongoing Conflict* and *Militarisation* capture the extent of current violent conflicts and each country's military capacity.

Positive Peace is the complementary aspect of peacefulness that captures the attitudes, institutions, and structures that create and sustain peaceful societies. Well-developed Positive Peace represents the capacity for a society to meet the needs of its citizens, reduce the number of grievances that arise and resolve remaining disagreements in an efficient way and without resorting to violence.

People encounter conflict regularly – whether at home, at work, among friends, or on a more systemic level between ethnic, religious or political groups. But the majority of these conflicts do not result in violence. Most of the time, individuals and groups can reconcile their differences without resorting to violence by using mechanisms such as informal societal behaviours, constructive dialogue or legal systems designed to reconcile grievances. Conflict provides the opportunity to negotiate or renegotiate a social contract and as such, it is possible for constructive conflict to involve nonviolence.¹ Positive Peace can be seen as providing the necessary conditions for adaptation to changing conditions, a well-run society, and the nonviolent resolution of disagreements.

This section describes how Positive Peace can be the guiding principle to build and reinforce the *attitudes, institutions and structures* that pre-empt conflict and help societies channel disagreements productively rather than falling into violence. Positive Peace also enables many other characteristics that societies consider important. For example, Positive Peace is also statistically associated with higher GDP growth, higher levels of resilience, better environmental outcomes, better measures of

inclusion, including gender, and much more. Findings from the Global Partnership for the Prevention of Armed Conflict's review of civil society and conflict conclude that, “when tensions escalate into armed conflict, it almost always reflects the breakdown or underdevelopment of routine systems for managing competing interests and values and the failure to satisfy basic human needs.”² Thus, the Positive Peace framework draws out the aspects of societies that prevent these breakdowns, based on their statistical association with the absence of violence.

“

Well-developed Positive Peace represents the capacity for a society to meet the needs of its citizens, reduce the number of grievances that arise and resolve remaining disagreements in an efficient way and without resorting to violence.

The distinguishing feature of IEP's work on Positive Peace is that it has been empirically derived through quantitative analysis. There are few known empirical frameworks available to analyse Positive Peace. Historically, this concept has largely been treated qualitatively and based on idealistic concepts of a peaceful society. IEP's Positive Peace framework is based on the quantitatively identifiable common characteristics of the world's most peaceful countries. IEP utilises the time series of data contained in the GPI, in combination with existing peace and development literature to statistically analyse the characteristics that peaceful countries have in common. An important aspect of this approach is to avoid subjectivity and value judgement and allow statistical analysis to explain the key drivers of peace.

BOX 4.1

The Positive Peace Index

IEP measures Positive Peace using the Positive Peace Index (PPI), which measures the level of Positive Peace in 163 countries or independent territories, covering 99 per cent of the world's population. The PPI is composed of 24 indicators to capture the eight domains of Positive Peace. Each of the indicators was selected based on the strength of its statistically significant relationship to the absence of violence. For more information and the latest results of the PPI, see the 2018 Positive Peace Report, available from www.visionofhumanity.org.



THE EIGHT PILLARS OF POSITIVE PEACE

WELL-FUNCTIONING GOVERNMENT



A well-functioning government delivers high-quality public and civil services, engenders trust and participation, demonstrates political stability, and upholds the rule of law.

SOUND BUSINESS ENVIRONMENT



The strength of economic conditions as well as the formal institutions that support the operation of the private sector and determine the soundness of the business environment. Business competitiveness and economic productivity are both associated with the most peaceful countries, as is the presence of regulatory systems that are conducive to business operations.

ACCEPTANCE OF THE RIGHTS OF OTHERS



Formal laws guarantee basic human rights and freedoms and the informal social and cultural norms that relate to behaviours of citizens serve as proxies for the level of tolerance between different ethnic, linguistic, religious, and socio-economic groups within the country. Similarly, gender equality and workers' rights are important components of societies that uphold acceptance of the rights of others.

GOOD RELATIONS WITH NEIGHBORS



Peaceful relations with other countries are as important as good relations between groups within a country. Countries with positive external relations are more peaceful and tend to be more politically stable, have better functioning governments, are regionally integrated and have lower levels of organised internal conflict. This factor is also beneficial for business and supports foreign direct investment, tourism and human capital inflows.

FREE FLOW OF INFORMATION



Free and independent media disseminates information in a way that leads to greater openness and helps individuals and civil society work together. This is reflected in the extent to which citizens can gain access to information, whether the media is free and independent, and how well-informed citizens are. This leads to better decision-making and more rational responses in times of crisis.

HIGH LEVELS OF HUMAN CAPITAL



A skilled human capital base reflects the extent to which societies care for the young, educate citizens and promote the development of knowledge, thereby improving economic productivity, enabling political participation and increasing social capital. Education is a fundamental building block through which societies can build resilience and develop mechanisms to learn and adapt.

LOW LEVELS OF CORRUPTION



In societies with high corruption, resources are inefficiently allocated, often leading to a lack of funding for essential services. The resulting inequities can lead to civil unrest and in extreme situations can be the catalyst for more serious violence. Low corruption can enhance confidence and trust in institutions.

EQUITABLE DISTRIBUTION OF RESOURCES



Equity in access to resources such as education and health, as well as, although to a lesser extent, equity in income distribution.

These pillars interact in a systemic way to build the *attitudes, institutions and structures* that lead to peaceful societies. High levels of Positive Peace occur where attitudes make violence less tolerated, institutions are more responsive to society's needs and structures underpin the nonviolent resolution of grievances.

Attitudes, institutions and structures are all highly interrelated, and can be difficult to distinguish from one another. But what is more important than drawing clear lines between them is the understanding of how they interact as a whole.

IEP does not attempt to define the specific *attitudes, institutions and structures* necessary for Positive Peace, as these will very much be dependent on the cultural norms of a specific society and its current trajectory. What is appropriate in one country may not be appropriate in another. Rather, it aims to provide a framework that each country can adopt and adapt to local contexts. This is critical because approaches to peace are best developed locally.

FIGURE 4.1

The pillars of Positive Peace

A visual representation of the factors comprising Positive Peace. All eight factors are highly interconnected and interact in varied and complex ways.



Attitudes

refer to norms, beliefs, preferences and relationships within society. Attitudes influence how people and groups cooperate, and can both impact and be impacted upon by the institutions and structures that society creates.

Institutions

are the formal bodies created by governments or other groups, such as companies, industry associations, citizen advocacy groups or labour unions. They may be responsible for supplying education or rule of law, for example. The way institutions operate is affected by both the attitudes that are prevalent within a society and the structures that define them.

Structures

can be both formal and informal and serve as a shared code-of-conduct that is broadly applicable to most individuals. Informally, it could be as simple as the protocol for queuing or formally as complex as tax law. Interactions are often governed by informal rules and structures, such as politeness, societal views on morality or the acceptance or rejection of other's behaviours.

Positive Peace has the following characteristics:

Systemic and complex: it is complex; progress occurs in non-linear ways and can be better understood through its relationships and communication flows rather than through events.

Virtuous or vicious: it works as a process by which negative feedback loops ("vicious" cycles of violence) or positive feedback loops ("virtuous" cycles of violence) can be created and perpetuated, respectively.

Preventative: though overall Positive Peace levels tend to change slowly over time, building strength in relevant pillars can prevent violence and violent conflict.

Underpins resilience and nonviolence: Positive Peace builds the capacity for resilience and incentives for non-violent means of conflict resolution. It provides an empirical framework to measure an otherwise amorphous concept, resilience.

Informal and formal: it includes both formal and informal societal factors. This implies that societal and attitudinal factors are equally as important as state institutions.

Supports development goals: Positive Peace provides an environment in which development goals are more likely to be achieved.



Positive and Negative Peace

KEY FINDINGS



- Positive and Negative Peace are highly correlated, with most countries recording rankings in the Positive Peace Index broadly in line with their GPI rankings.
- Countries with high levels of both Positive and Negative Peace have achieved a *Sustainable Peace* and are unlikely to fall into conflict. Conversely, countries with low levels of both Positive and Negative Peace are more likely to be caught in a *Violence Trap*.
- Most countries lie between these two positions, with a medium level of both Positive and Negative Peace.
- Some countries have higher levels of Negative Peace than Positive Peace. This is known as a *Positive Peace deficit*, and these countries are more likely to have increased levels of violence in the future.
- Positive Peace is most closely correlated with the *Safety and Security* domain of the GPI. It also has a strong correlation with the *Ongoing Conflict* domain, but only has a very weak correlation with the *Militarisation* domain.
- The relationship between Positive and Negative peace is systemic. Given the feedback between the two, large increases in peacefulness can be achieved once a threshold level of Positive Peace is achieved.
- There are tipping points where small increases in Positive Peace can trigger large changes in levels of Negative Peace. Tipping points occur for *Safety and Security*, *Sound Business Environment*, *Low Levels of Corruption*, and *Equitable Distribution of Resources*.

THE RELATIONSHIP BETWEEN POSITIVE AND NEGATIVE PEACE

Negative Peace is defined as the *absence of violence or fear of violence*. However, the mere absence of violence or fear does not necessarily lead to stable, harmonious and prosperous societies. Negative Peace does not capture a society's tendencies towards stability and harmony, which can be measured through the concept of Positive Peace.

Positive Peace is defined as the *attitudes, institutions and structures* that create and sustain peaceful societies. Positive Peace can also be used to gauge the resilience of a society, or its ability to absorb shocks without falling or relapsing into conflict.

Positive and Negative Peace are interconnected. This relationship, however, is not deterministic, but rather systemic. The existence of Positive Peace makes it more likely that conflicts will end quickly and non-violently. The resolution of conflict frees up resources to pursue policies aimed at growth and development, which in turn leads to higher levels of Positive Peace, a virtuous cycle of peaceful development.

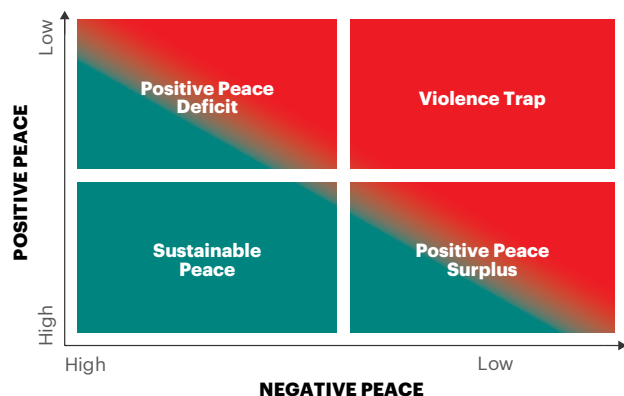
The relationship between Positive and Negative Peace is strongest in the long run. In the short run, countries may have levels of Positive and Negative Peace that are not balanced.

- *Sustainable Peace*: the steady state where high levels of Positive Peace lead to high levels of Negative Peace, with both reinforcing each other systemically. Low levels of violence and fear of violence are supported by, and in turn underpin, strong institutions and attitudes towards peace.
- *Positive Peace Surplus*: the state in which the level of Positive Peace is noticeably higher than Negative Peace. This indicates that the country has a strong potential to improve its peacefulness. Countries with Positive Peace surpluses, on average, improve in peacefulness. The exception is countries with high levels of militarisation that maintain high Positive Peace but remain ranked relatively low on the GPI, such as the US and Israel.
- *Positive Peace Deficit*: countries where Positive Peace is markedly lower than Negative Peace. This indicates they are more vulnerable to shocks and run a higher risk of increased levels of violence. Countries that have Positive Peace deficits are more likely to deteriorate in peace, with prior research finding that approximately 60 per cent of countries with large deficits suffered substantial falls in peace within seven years.
- *Violence Trap*: where low levels of Positive Peace are broadly matched by low levels of Negative Peace. In this state, conflict and fear corrode social institutions and attitudes, whose depletion will in turn prompt more individuals to address grievances through violence.

FIGURE 4.2

Relationship between positive and negative peace

Countries can find themselves in different systemic states of peacefulness.

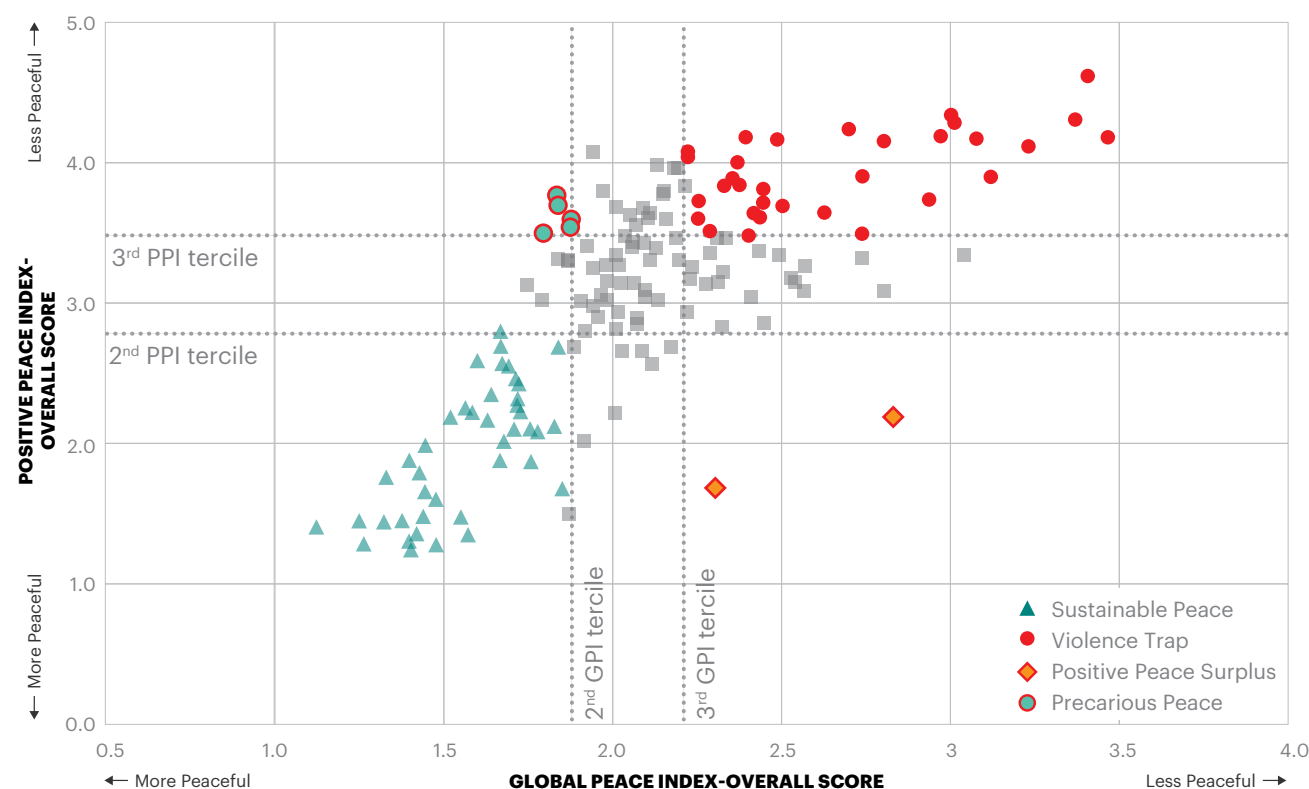


One way to illustrate these systemic states of peacefulness is to classify countries according to their positions relative to GPI and PPI terciles. Averaging overall scores from 2008 to 2017, there were 33 countries in a *Violence Trap* and 43 countries in *Sustainable Peace*, out of a total sample of 163 (Figure 4.3). Two countries recorded Positive Peace surpluses, due largely to high levels of militarisation suppressing their GPI rank. Six countries recorded Positive Peace deficits and as such would be in a state of fragile peace. The remaining countries could be seen as in an intermediate state, with neither a strong surplus or deficit of Positive Peace.

FIGURE 4.3

Example of systemic states of peacefulness, 2008-2017

Classifying countries by PPI and GPI terciles, 43 (26% of total) would be in a state of Sustainable Peace and 33 (20%) in the Violence Trap.



Source: IEP

THE DYNAMICS OF PEACE AND THE POSITIVE PEACE DEFICIT

Positive Peace can be used as a gauge of resilience: the ability of a society to resolve tensions without resorting to violence. Countries that have high stocks of Positive Peace have a lower propensity to fall into violence. This can be seen when looking at the dynamic relationship between Positive and Negative Peace.

Countries that enjoyed high levels of Positive Peace in 2013 experienced only relatively small changes in the GPI over the five subsequent years, as shown in Figure 4.4. In contrast, many nations with a PPI overall score of 3.0 or higher recorded large swings in their Negative Peace scores, experiencing both large deteriorations and improvements. A total of 14 countries recorded considerable increases in violence, with their GPI overall score deteriorating substantially, while four weak Positive Peace nations in 2013 recorded improvements of the same magnitude over the five-year period.

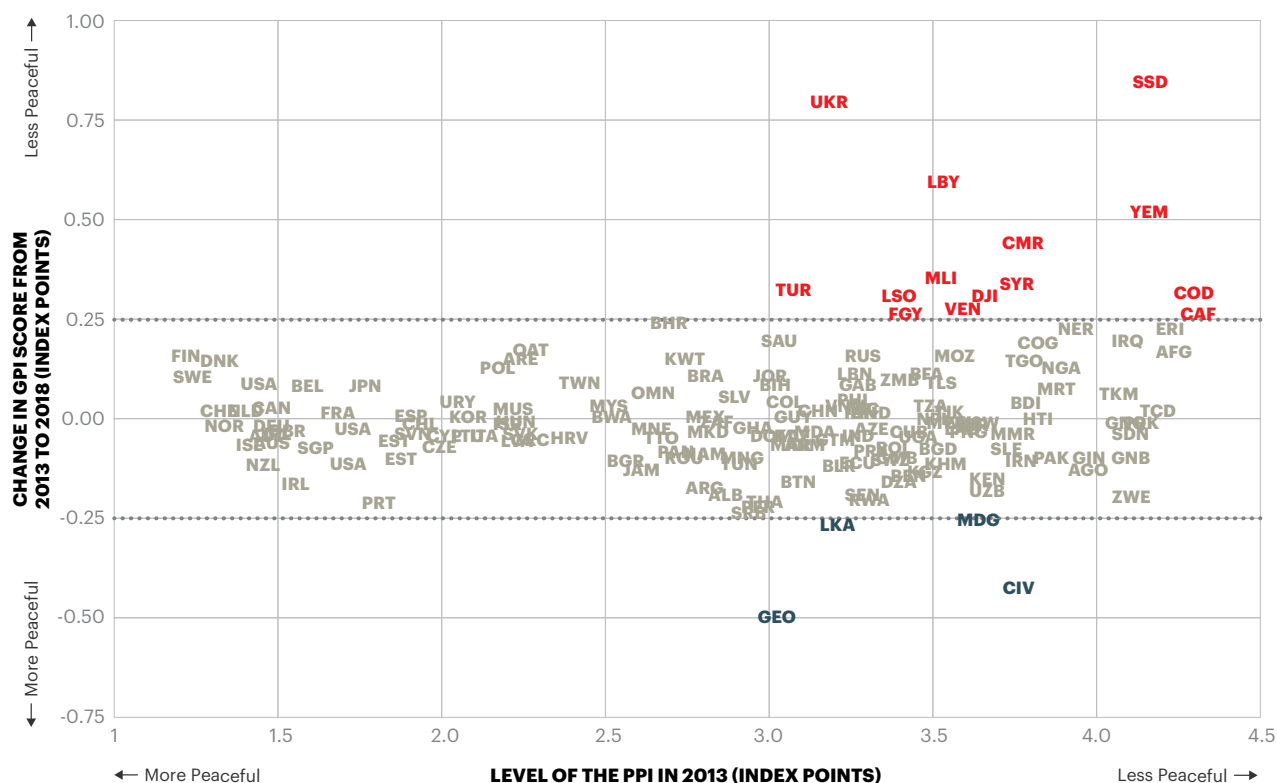
Countries that experience Positive Peace deficits are more likely to deteriorate into states of violence. The countries in the GPI were divided into two groups: “deficit” countries, when countries rank higher in the GPI than in the PPI and “surplus” countries, where the reverse is true.

Of the 84 countries that recorded Positive Peace deficits in their 2008 rankings, 47 experienced deteriorations in Negative Peace over the following decade (Figure 4.5). This compares with 37 that became more peaceful. In addition, “deficit” countries that deteriorated recorded a movement twice as large as countries that improved.

FIGURE 4.4

Positive peace and changes in negative peace, 2013-2018

Of countries with PPI scores higher than 3.0 in 2013, 14 saw large (0.25 index points or more) deteriorations in Negative Peace in the following five years. Only four recorded commensurate improvements.

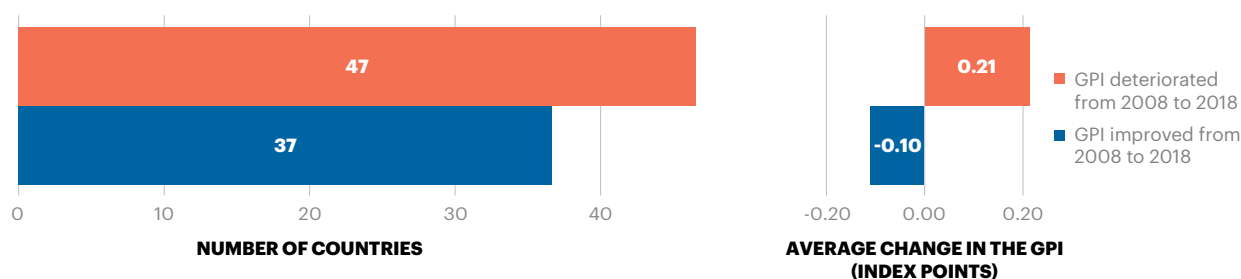


Source: IEP

FIGURE 4.5

Positive peace deficits and future developments in peacefulness, 2008-2018

Countries that recorded a Positive Peace 'deficit' in 2008 were more likely to record deteriorations in the GPI over the following decade.



Source: IEP

“

Of the 84 countries that recorded Positive Peace deficits in 2008, 47 experienced deteriorations in Negative Peace.

THE DOMAINS OF NEGATIVE PEACE

As discussed, Negative Peace and Positive Peace are highly correlated. Most countries do well in both or poorly in both. The correlation coefficient between levels of the GPI overall score and the PPI overall score averaged from 2008 to 2017 was 0.75. However, this result masks some important differences in the way the three domains of the GPI relate to Positive Peace. Each of these domains – *Safety and Security*, *Ongoing Conflict* and *Militarisation* – correlates to social structures and norms in different ways.

The *Safety and Security* domain is the domain most closely correlated with Positive Peace (Figure 4.6). The correlation

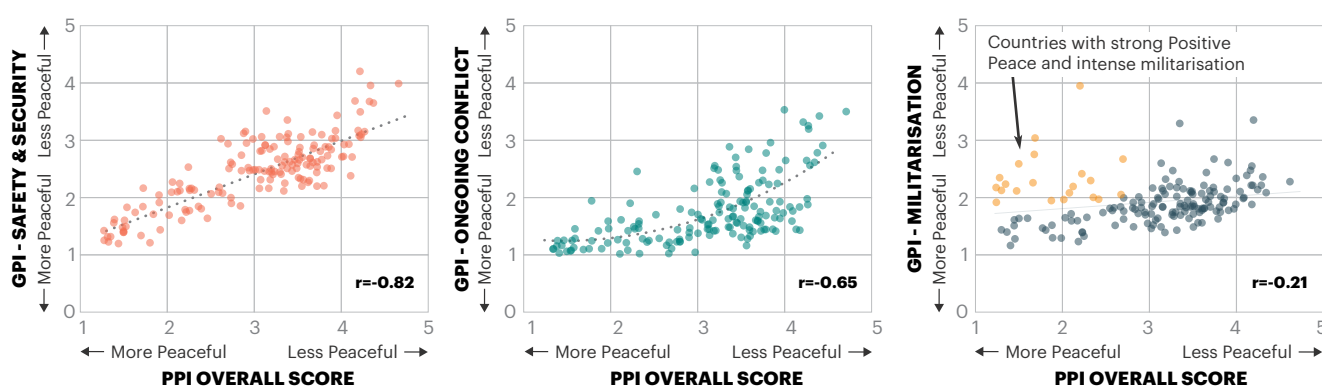
coefficient between levels of the GPI *Safety and Security* and the PPI overall score averaged between 2008 and 2017 is 0.82. The result is not surprising, given that *Safety and Security* is arguably the most domestically focused of the GPI domains.

The *Ongoing Conflict* domain has a weaker correlation with Positive Peace than the *Safety and Security* domain. Moreover, the relationship is not linear. There is little difference in the level of conflict for countries with a Positive Peace score less than 2.5. However, beyond this point, deteriorations in Positive Peace are associated with large falls in the GPI. Violence from conflict can take hold much quicker and have a much larger impact, once Positive Peace is eroded.

FIGURE 4.6

Positive peace, conflict and militarisation, 2008-2017

Positive Peace is linearly correlated with *Safety and Security*. For values of 2.5 and higher, the PPI is positively correlated with *Ongoing Conflict*. The PPI is not highly correlated with *Militarisation*.



Source: IEP

Positive Peace is not highly correlated with the *Militarisation* domain, with a correlation coefficient of 0.21. This is in part driven by a number of countries with strong levels of Positive Peace displaying intense militarisation.

As the PPI falls below 2.5 or so, two distinct groups of countries appear to form, as shown in Figure 4.6. One group continues to experience improvements in their GPI scores, with the

Militarisation GPI declining. In contrast, for a second group of countries highlighted in the picture, *Militarisation* remains intense, despite their high levels of Positive Peace. Most countries in this group are highly developed, wealthy countries with comparatively large military expenditure, armed forces, and weapons imports and exports.

“

Positive Peace is most closely correlated with the *Safety and Security* domain of the GPI. It also has a strong correlation with the *Ongoing Conflict* domain, but only has a very weak correlation with the *Militarisation* domain.

SYSTEMS OF PEACE

Systems thinking describes the way in which different factors in a system respond to one another, where cause and effect are not always identifiable. Systems of peace often display non-linear relationships between variables, sometimes characterised by “tipping points”. Tipping points are systemic states where small changes in a variable or set of variables can throw the system into a markedly different development path than before.

For example, in most low-income countries there is little-to-no statistically discernible relationship between GDP per capita and the *Safety and Security* domain of the GPI (Figure 4.7). However, once per-capita GDP reaches the US\$20,000 threshold,³ further increases in income are associated with pronounced improvements in internal safety.

Economic stability can also be mapped against states of peacefulness. Countries experiencing moderate to high levels of violence have a wide dispersion of inflation outcomes. Some of

these countries experienced average inflation rates above 25 per cent per year from 2008 to 2017. But once the GPI *Safety and Security* exceeds the tipping point of 2.0, average annual inflation tends to stabilise at or below 2.5 per cent.

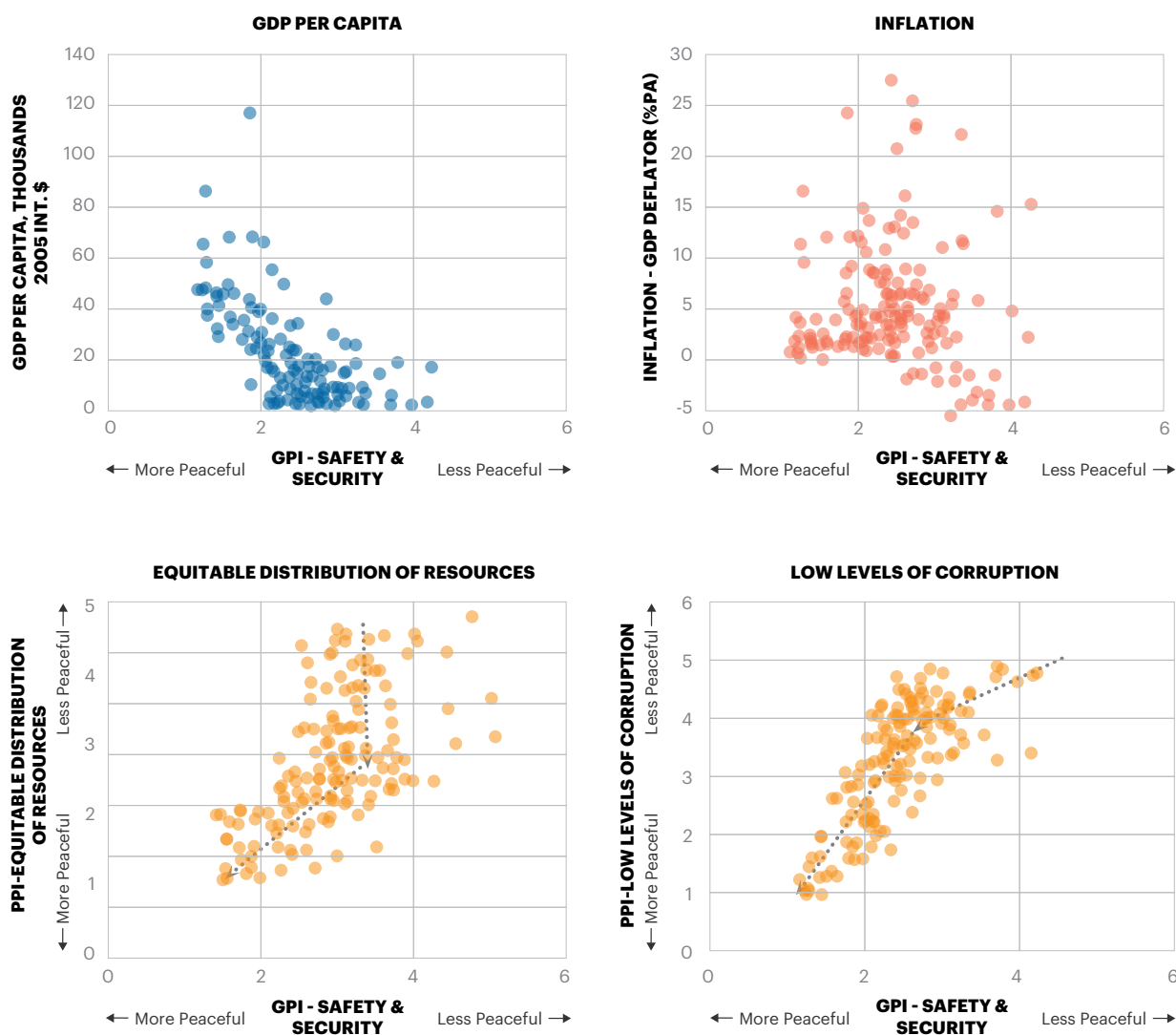
The relationship between violence and economic inequality also appears to be non-linear. Some countries with high inequality tend to experience moderate to high levels of violence. In addition, as inequality declines, no substantial improvement in *Safety and Security* is recorded on average until the tipping point is reached. Statistical analysis shows that only when the PPI *Equitable Distribution of Resources* score falls below the tipping point of 2.7 does *Safety and Security* start to improve on average.

For high-corruption countries, those with the PPI *Low Levels of Corruption* score between five and four, small reductions in corruption are associated with large improvements in *Safety and Security*. These “low hanging fruit” could be an added incentive for the combat of corruption in these countries. Once *Low Levels of Corruption* falls below 4.0, the improvement becomes more gradual.

FIGURE 4.7

Systems of peace - Safety and Security vs. socio-economic outcomes, 2008-2017

The *Safety and Security* domain of the GPI has strong non-linear links with internal socio-economic developments.



Source: IEP; United Nations

Positive Peace & the Economy



KEY FINDINGS



- Positive Peace is dynamically associated with economic development, with the correlation coefficient between changes in the PPI overall score and real GDP growth being -0.45.
- Greater household consumption is a key reason for the link between improvements in Positive Peace and economic performance. Households are particularly helped by improvements in public administration.
- Government spending tends to increase with improvements in the *Equitable Distribution of Resources* pillar, as a reduction of inequality may lead to greater tax receipts.
- On the production side, business activity responds particularly well to improvements in public administration and the combat of corruption.
- Services and construction are particularly responsive to improvements in Positive Peace. Manufacturing and agriculture are less responsive, especially in non-OECD, non-BRIC nations.
- Low-peace countries tend to rely more heavily on agriculture. When the level of the PPI overall score improves beyond the tipping point, economies tend to transition to services and manufacturing.
- A country's progress in Positive Peace improves socio-economic conditions domestically. Because of this, nationals operating abroad are less impacted. Most of the economic growth is driven by those operating domestically.

DYNAMIC RELATIONSHIPS

IEP's 'Business and Peace' report¹ demonstrated the relationship between Positive Peace and strong economic outcomes.⁴ This analysis focused on the levels of the Positive Peace Index and how these correlate with several macroeconomic indicators. By contrast, this section investigates the dynamic correlation between Positive Peace and several macro-economic indicators.

Dynamic correlation gauges how changes in one variable relate to changes in another, without necessarily implying causation. While the analysis of static correlations provides a snapshot of the state of a system at a given time, dynamic correlations show how its internal structure changes over time.

The analysis of dynamic correlations is relevant to policymakers, businesses and many other stakeholders. For example, it highlights areas of a system that tend to develop more slowly than others, or "growth bottlenecks". The analysis can also help policymakers identify "low-hanging fruit": areas more responsive to improvements in Positive Peace that may kick-start virtuous growth cycles. Further, by assuming that observed dynamic relationships will continue in the future, stakeholders may also use dynamic analysis to help predict socio-economic outcomes.

POSITIVE PEACE AND ECONOMIC PERFORMANCE

Real GDP growth is correlated with changes in the PPI overall score. The median growth rate in real GDP for countries in which

Positive Peace improved was 4.2 per cent, whereas countries that deteriorated recorded only 1.8 per cent growth per year. The correlation coefficient between changes in the Positive Peace Index overall score and real GDP growth is -0.45, as shown in Figure 4.8.

THE PILLARS OF POSITIVE PEACE

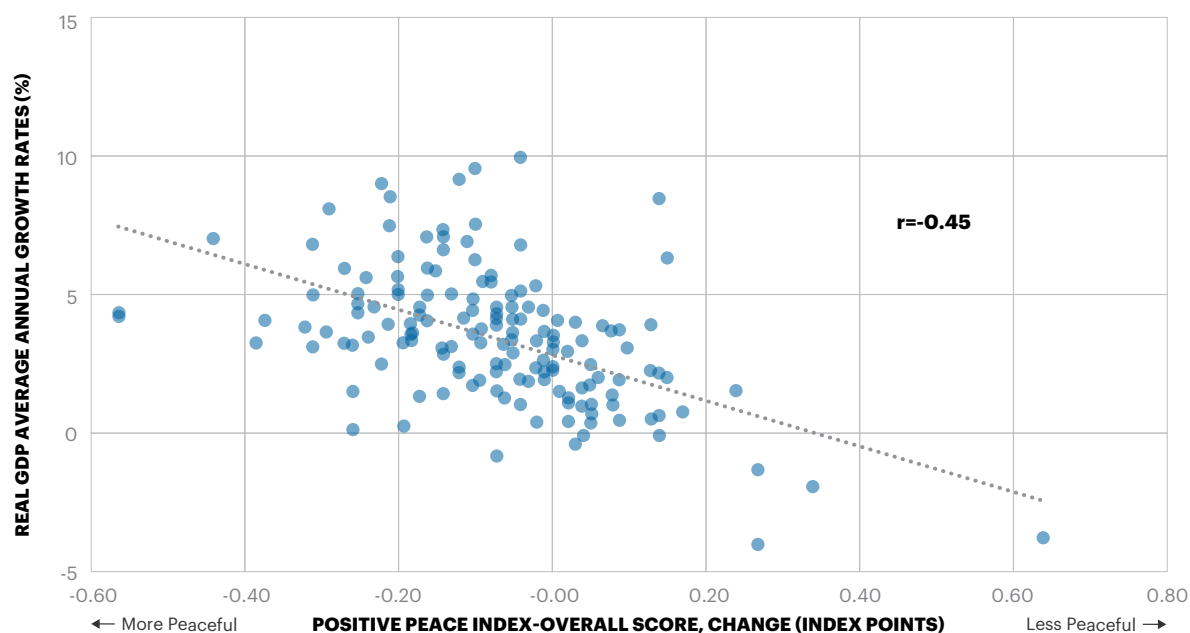
It could be argued that the PPI is correlated to GDP because GDP information is used on a per-capita basis to calculate the *Sound Business Environment* pillar. This is known as endogeneity and is a frequent cause of false correlations in statistical analysis. However, almost all PPI pillars are dynamically correlated with GDP (Figure 4.9). Improvements in the *Well-Functioning Government*, *Low Levels of Corruption*, *Free Flow of Information* and *Equitable Distribution of Resources* pillars are highly associated with economic output. This suggests that the impact of endogeneity in this analysis is small and that the correlation between changes in the PPI overall score and GDP growth is meaningful.

Well-Functioning Government and *Low Levels of Corruption* are linked with GDP because improvements in these pillars result in lower costs of establishing and running businesses. *Free Flow of Information* allows producers and consumers to make better economic choices and more accurately predict costs, prices and income levels. It also helps businesses innovate and find the resources and talent they need. *Equitable Distribution of Resources* means that purchasing power is not concentrated in a small group, but spread more evenly throughout the population. Other things being equal, this more even distribution increases the overall level

FIGURE 4.8

Correlation between changes in the PPI overall score and changes in real GDP, 2005-2016

Improvements in Positive Peace are contemporaneously correlated with higher Real GDP growth.

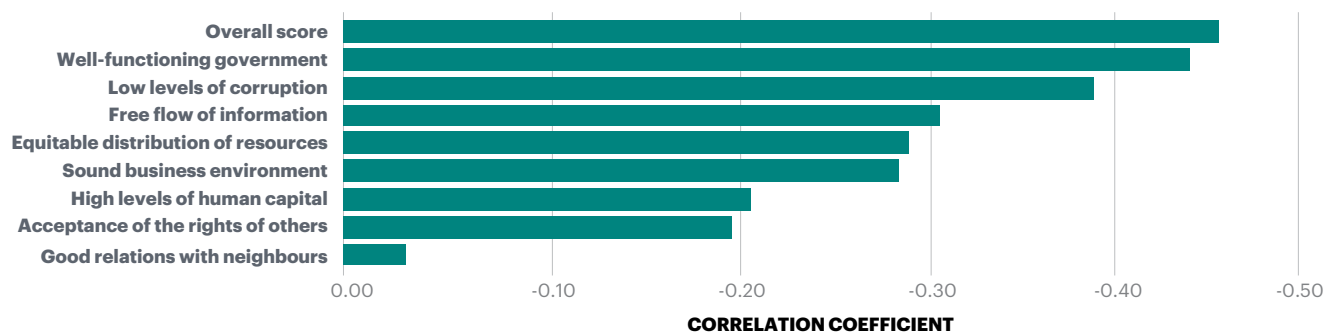


Source: IEP; United Nations

FIGURE 4.9

Correlation between changes in PPI pillars and changes in real GDP, 2005-2017

Most of the Pillars of Positive Peace exhibit dynamic correlation with real GDP.



Source: IEP; United Nations

“

Almost all PPI pillars are dynamically correlated with GDP.

”

of consumption, because middle- and low-income households have more propensity to spend the marginal dollar than wealthy individuals.

Of note, the dynamic correlation coefficient for the PPI overall score is higher in absolute terms than for any of the pillars. This highlights the systemic nature of the socio-economy, whereby the whole is more than the sum of the parts. Because of this, the analysis of the integrated system can provide important additional insight to that of constituents.

CONSUMPTION

Total final consumption is particularly responsive to improvements in Positive Peace. The correlation coefficient between changes in real consumption from 2005 to 2016 and the PPI overall score over the same period is -0.36 (Figure 4.10). This suggests that consumption is a key component of how the socio-economic system responds to improvements in peacefulness.

In particular, consumption by households tends to increase noticeably as Positive Peace improves in a country. The dynamic correlation coefficient between real household consumption and the PPI overall score was -0.34. Households are particularly sensitive to the quality of public services and the proper implementation of social policies, especially in the areas of health, education and social welfare. This finding seems to be corroborated by *Well-Functioning Government* recording the highest dynamic correlation against real household consumption than any other PPI pillar.

Household consumption appears to be more responsive to developments in Positive Peace in countries from the Organisation for Economic Cooperation and Development (OECD), and the “BRIC” grouping of countries, including Brazil, Russia, India and China. This could be related to the substantial socio-economic improvements observed in the BRICs and middle-income OECD nations in recent times. However, although not as high, growth in real household consumption is still correlated to improvements in Positive Peace in middle and low-income countries. Outside the OECD and BRICs, real household consumption seems to be particularly responsive to the *Well-Functioning Government*, *Low Levels of Corruption* and *High Levels of Human Capital* pillars. This throws into sharp focus the value of policies that improve administrative efficiency, reduce waste and mismanagement and promote education initiatives.

Government spending was less responsive to developments in Positive Peace than household consumption. The dynamic correlation coefficient between real government consumption and the PPI overall score was -0.25 for the all-country sample. Excluding OECD and BRICs, the correlation is lower and does not appear to be meaningful. Of note, government spending is most responsive to the *Equitable Distribution of Resources* pillar of Positive Peace. Improvements in this pillar are associated with declines in income inequality and a reduction in the poverty gap. It is possible that these developments lead to an overall increase in government tax receipts and therefore its ability to spend, or that government spending may decrease inequality.

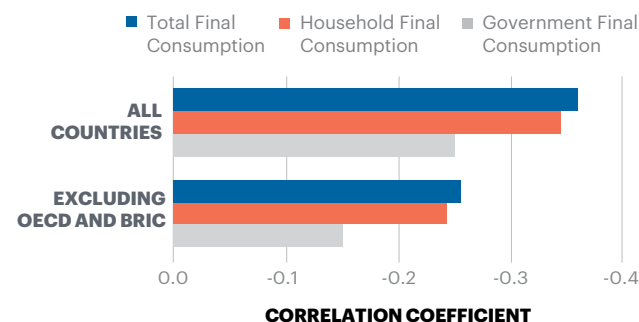
A consequence of the dynamic relationships described above is that countries that experience improvements in Positive Peace record different macroeconomic outcomes than those in which Positive Peace deteriorates. Among countries that experienced improvements in Positive Peace from 2005 to 2016 the median

annual growth in real final consumption was 4.4 per cent (Figure 4.11). This compares with an annual rate of 1.8 per cent for countries in which Positive Peace deteriorated.

FIGURE 4.10

Correlation between changes in the PPI overall score and changes in real consumption, 2005-2016

Improvements in Positive Peace are associated with greater real consumption. Household consumption is particularly responsive to improvements in peacefulness.

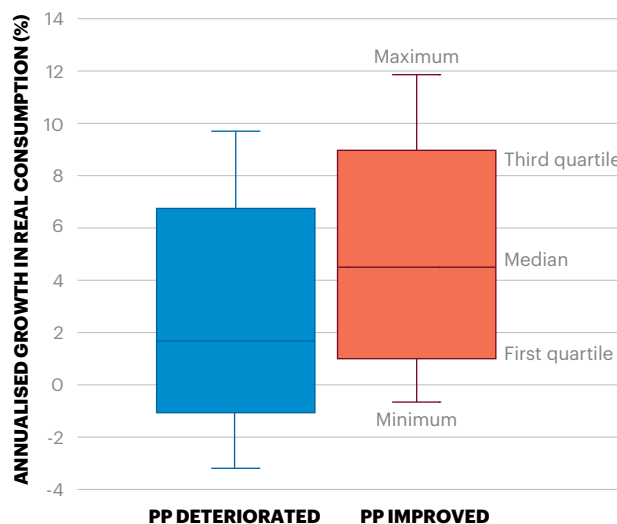


Source: IEP; United Nations

FIGURE 4.11

Changes in consumption by PPI grouping, 2005-2016

Countries in which Positive Peace improved recorded median growth in real consumption of 4.4 percent per annum. This compares with 1.8 per cent per annum for countries in which Positive Peace deteriorated.



Source: IEP; World Bank

PRODUCTION

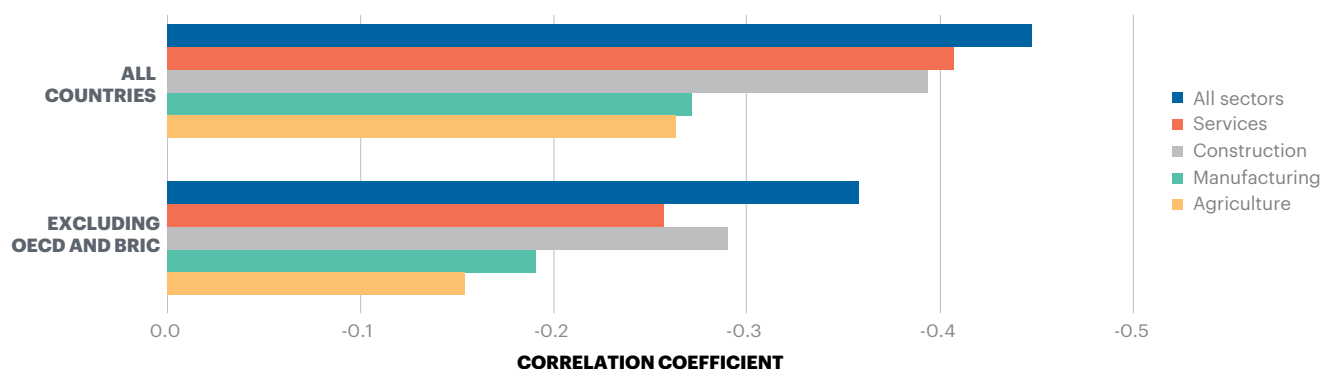
The business sector is responsible for almost all of the production of goods and services in most economies. A gauge of activity in this sector is the gross value added (GVA), which is the value of all goods and services produced minus the variable cost of producing them.

The correlation between changes in real GVA and improvements in Positive Peace over the period of analysis was -0.44. This suggests

FIGURE 4.12

Correlation between changes in the PPI overall score and changes in real gross value added, 2005-2017

Positive Peace improvements are more closely correlated with the service and construction sectors of the economy. Manufacturing and agriculture appear to be less affected by improving socio-economic conditions.



Source: IEP; United Nations

that corporate activity is strongly associated with the attitudes and institutions that lead to peaceful societies. The pillars that more strongly correlate with real GVA are *Well-Functioning Government* and *Low Levels of Corruption*.

Business activity can be broadly encapsulated into four subsectors:

- agriculture (including the extraction of natural resources)
- manufacturing
- services
- construction.

The latter involves building activity, development of infrastructure assets and installation of heavy fixed equipment. Positive Peace is associated with these subsectors in different ways.

The service sector is the most sensitive sector to improvements in the PPI, with a dynamic correlation coefficient of -0.41 (Figure 4.12). This relationship appears to be particularly strong for OECD and BRICs countries.

The next subsector with the highest dynamic correlation with Positive Peace is construction, with the coefficient estimated around -0.39. Presumably, this result has been influenced by the rapid development of infrastructure observed among BRIC nations over the past decade or so.

A number of countries that have experienced improvements in their socio-economic systems in recent times have observed construction booms. For instance, Lao recorded strong growth in construction on the back of new electricity production growth in the Mekong tributaries and from renewed investment in real estate.⁵ Panama's construction activity has been buoyed by a government capital investment program that helped build a public metro system in Panama City.⁶ Azerbaijan experienced a construction boom that saw rapid urban expansion in and around the capital Baku.⁷ All these countries recorded substantial improvements in the PPI overall score since 2005.

The service subsector has also experienced strong growth on the back of Positive Peace improvements in non-OECD, non-BRIC nations. Some of this growth has been domestically oriented, as in Bhutan's fast growing health, education and asset ownership

services.⁸ But there has also been a growing presence in global service markets, as per Ethiopia's fast development in international air travel and telecommunications.⁹

Agriculture and manufacturing are not as responsive to improvements in Positive Peace as the other subsectors. This is especially the case for non-OECD, non-BRIC nations, where the dynamic correlation coefficients are particularly low in absolute terms. In high-income countries, agriculture is well-mechanised and farming is usually performed in large scale with industrial techniques. In these circumstances, improvements in Positive Peace may lead to better economic conditions including cheaper funding, access to more efficient equipment and easier access to price guarantees through financial derivative markets.

In contrast, agriculture in middle- to low-income countries usually involves small scale operations and little-to-no mechanisation. In these conditions, it is possible that weather and geographical constraints exert greater impact on yield than Positive Peace factors.

POSITIVE PEACE AND THE STRUCTURE OF ECONOMIES

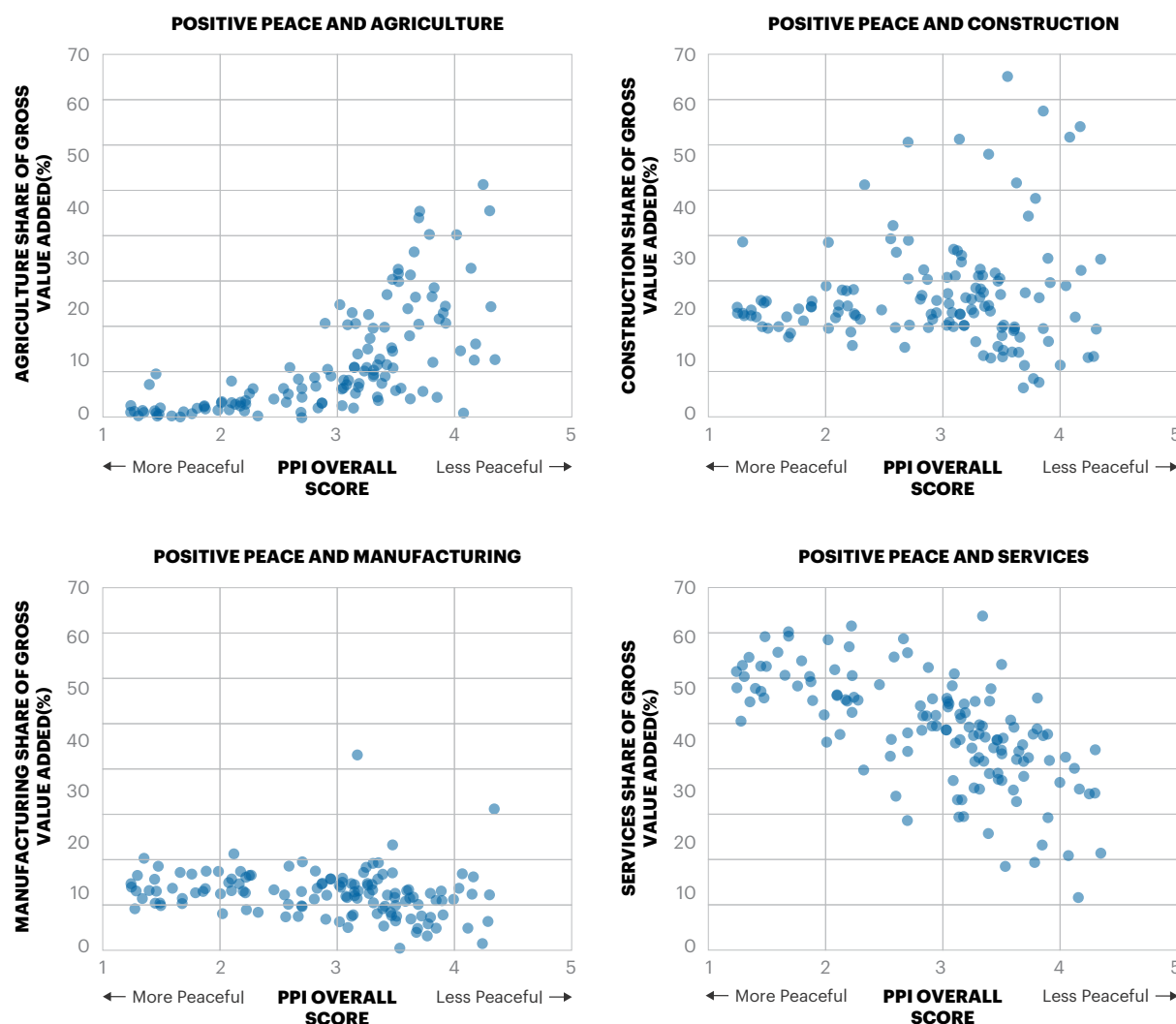
The composition of economies varies according to the different levels of peacefulness in society. This means that countries with different PPI levels operate with different mixes between agriculture, manufacturing, services and construction. Economic theory suggests different stages of economic development entail different business sector mixes. The objective of this section is to demonstrate that the composition of economic activity can also be expressed in terms of Positive Peace, without necessarily implying causation. Data shows that certain shifts in the composition of economies tend to take place when the socio-economic system reaches certain Positive Peace tipping points.

Low peace – which also correlates with low income – countries tend to rely more heavily on agriculture. In some of these countries the agricultural share of total GVA may be as high as 50 per cent (Figure 4.13). However, because of weather or geographical constraints, some low-peace countries are unable to develop strong agricultural subsectors. As a result, there is a large dispersion in the agricultural share of GVA among low-peace countries.

FIGURE 4.13

Composition of economies by average level of Positive Peace, 2005-2017

The composition of economies changes according to the level of Positive Peace experienced in countries.



Source: IEP; World Bank

However, as countries improve in Positive Peace, this large dispersion tends to disappear. As the PPI overall score falls below 2.5, the agricultural share of total GVA contracts to under ten per cent. This contraction takes place because economic activity shifts towards other subsectors, especially services and manufacturing.

A progressive transition into the service sector takes place as countries improve in peacefulness. As peacefulness improves, the services share of corporate activity rises progressively to average around 60 per cent in high-peace economies.

The construction sector is critical for an economy seeking to develop its infrastructure. In most low-peace countries, there is a large dispersion of outcomes regarding the importance of this subsector. In some countries, construction is relatively underdeveloped, accounting for some ten per cent or so of total GVA. In contrast, some low-peace countries report construction making up to two-thirds of their corporate activity.

However, some low-peace countries do experience construction booms that lift many of their citizens out of poverty and underpin

future economic development. Construction booms could also be a result of the effort to rebuild infrastructure, dwellings and businesses following internal or external conflicts.

As peacefulness improves and the PPI overall score falls below two, construction stabilises at around a quarter of total GVA. High-peace countries tend to have well-developed infrastructure and relatively stable demand for real estate so the need for construction is usually smaller than in developing nations.

Manufacturing in low-peace countries hovers between zero and 20 per cent of total GVA. As peacefulness improves, the median manufacturing share of corporate activity increases progressively. High-peace countries operate with a manufacturing sector that accounts for between ten per cent and 20 per cent of total GVA.

CAPITAL INVESTMENT

Economic development is usually achieved through the combination of a qualified workforce and economic capital. Raw materials, energy resources and information are also important. Economic capital represents the means of production: infrastructure, installations, machinery and equipment. Information encompasses both technical data about how to produce new goods or services in the most efficient way and marketing data that allows firms to forecast prices, costs and target the appropriate consumer base.

A country's economic capital is measured as the gross fixed capital formation (GFCF). In real terms, changes in GFCF are correlated to improvements in the PPI overall score, with the dynamic correlation coefficient for changes since 2005 being estimated at -0.28. The PPI pillar with the highest dynamic correlation coefficient against GFCF was *Free Flow of Information*. This highlights the critical role information plays in the build-up of an economy's capital base. *Sound Business Environment* and *High Levels of Human Capital* are the next most correlated Pillars.

DOMESTIC OR NATIONAL ACTIVITY?

Gross national income (GNI) is a measure of all income earned by a country's nationals, whether they operate domestically or abroad. It contrasts with GDP, which gauges all income earned domestically, whether by nationals or by foreigners. The comparison between these two metrics shows how much of a country's economic activity is produced domestically or internationally.

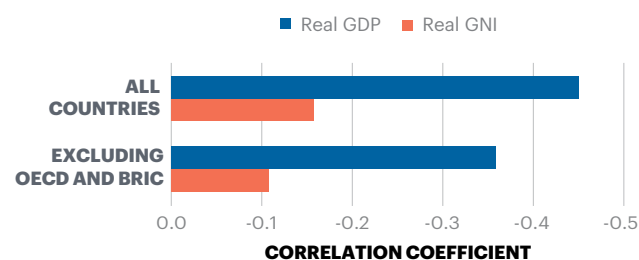
GNI is far less dynamically correlated to Positive Peace than GDP. As discussed above, the dynamic correlation coefficient between real GDP and the PPI overall score is -0.45 since 2005. In contrast, the same coefficient is estimated at -0.16 for real GNI (Figure 4.14).

This suggests that the economic development associated with improvements in Positive Peace in a country is mainly due to foreigners operating domestically rather than nationals operating abroad. This is intuitive, because a country's level of Positive Peace measures domestic socio-economic conditions, which nationals operating away from home may not be able to enjoy fully. In contrast, foreigners – some of whom will be large global companies with access to international financial markets and logistics – will be able to respond more quickly to any improvement in local operating conditions.

FIGURE 4.14

Correlation between changes in the PPI overall score and changes in economic variables, 2005-2017

Changes in Positive Peace are more strongly correlated with changes in Gross Domestic Product than Gross National Income.



Source: IEP; United Nations

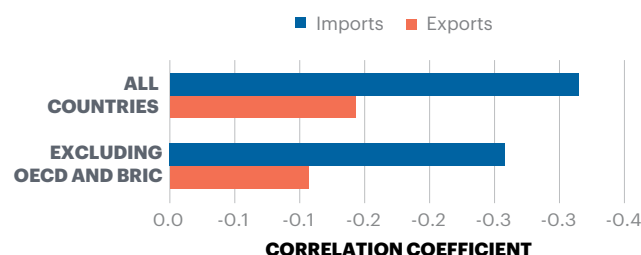
TRADE BALANCE

Imports are driven by domestic demand, be it from nationals or foreigners operating domestically. In contrast, exports are mainly driven by demand from abroad. Accordingly, data shows that imports are far more dynamically correlated to local Positive Peace conditions than exports (Figure 4.15). Countries in which Positive Peace improves observe greater levels of domestic demand, which buoy purchases of goods and services from abroad.

FIGURE 4.15

Correlation between changes in the PPI overall score and changes in real exports and imports, 2005-2016

Improvements in Positive Peace lead to greater import demand. However these do not necessarily translate into higher exports, which respond largely to economic developments abroad.



Source: IEP; United Nations

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A country's progress in Positive Peace improves socio-economic conditions domestically. Because of this, nationals operating abroad are less impacted. Most of the economic growth is driven by those operating domestically.

5



APPENDICES

APPENDIX A

GPI methodology

Peace is notoriously difficult to define. The simplest way of approaching it is in terms of the harmony achieved by the absence of violence or the fear of violence, which has been described as Negative Peace. Negative Peace is a complement to Positive Peace which is defined as the attitudes, institutions and structures that create and sustain peaceful societies.

The GPI was founded by Steve Killelea, an Australian technology entrepreneur and philanthropist. It is produced by the Institute for Economics & Peace, a global think tank dedicated to developing metrics to analyse peace and to quantify its economic benefits.

The GPI measures a country's level of Negative Peace using three domains of peacefulness. The first domain, *Ongoing Domestic and International Conflict*, investigates the extent to which countries are involved in internal and external conflicts, as well as their role and duration of involvement in conflicts.

The second domain evaluates the level of harmony or discord within a nation; ten indicators broadly assess what might be described as *Societal Safety and Security*. The assertion is that low crime rates, minimal terrorist activity and violent demonstrations, harmonious relations with neighbouring countries, a stable political scene and a small proportion of the population being internally displaced or made refugees can be equated with peacefulness.

Seven further indicators are related to a country's *Militarisation*—reflecting the link between a country's level of military build-up and access to weapons and its level of peacefulness, both domestically and internationally. Comparable data on military expenditure as a percentage of GDP and the number of armed service officers per head are gauged, as are financial contributions to UN peacekeeping missions.

The expert panel

An international panel of independent experts played a key role in establishing the GPI in 2007—in selecting the indicators that best assess a nation's level of peace and in assigning their weightings. The panel has overseen each edition of the GPI; this year, it included:

Professor Kevin P. Clements, chairperson

Foundation Chair of Peace and Conflict Studies and Director, National Centre for Peace and Conflict Studies, University of Otago, New Zealand

Dr Sabina Alkire

Director, Oxford Poverty & Human Development Initiative (OPHI), University of Oxford, United Kingdom

Dr Ian Anthony

Research Coordinator and Director of the Programme on Arms Control, Disarmament and Non-proliferation, Stockholm International Peace Research Institute (SIPRI), Sweden

Dr Manuela Mesa

Director, Centre for Education and Peace Research (CEIPAZ) and President, Spanish Association for Peace Research (AIPAZ), Madrid, Spain

Dr Ekaterina Stepanova

Head, Unit on Peace and Conflict Studies, Institute of the World Economy and International Relations (IMEMO), Russian Academy of Sciences, Russia

THE INDICATORS

The GPI comprises 23 indicators of the absence of violence or fear of violence. The indicators were originally selected with the assistance of the expert panel in 2007 and have been reviewed by the expert panel on an annual basis. All scores for each indicator are normalised on a scale of 1-5, whereby qualitative indicators are banded into five groupings and quantitative ones are scored from 1 to 5, to the third decimal point.

ONGOING DOMESTIC & INTERNATIONAL CONFLICT



- ▶ **Number and duration of internal conflicts**
Uppsala Conflict Data Program (UCDP) Battle-Related Deaths Dataset, Non-State Conflict Dataset and One-sided Violence Dataset; Institute for Economics & Peace (IEP)

- ▶ **Number of deaths from external organised conflict**
UCDP Armed Conflict Dataset

- ▶ **Number of deaths from internal organised conflict**
International Institute for Strategic Studies (IISS) Armed Conflict Database (ACD)

- ▶ **Number, duration and role in external conflicts**
UCDP Battle-Related Deaths Dataset; IEP

- ▶ **Intensity of organised internal conflict**
Qualitative assessment by EIU analysts

- ▶ **Relations with neighbouring countries**
Qualitative assessment by EIU analysts

SOCIETAL SAFETY & SECURITY



- ▶ **Level of perceived criminality in society**
Qualitative assessment by EIU analysts

- ▶ **Number of refugees and internally displaced people as a percentage of the population**
Office of the High Commissioner for Refugees (UNHCR) Mid-Year Trends; Internal Displacement Monitoring Centre (IDMC)

- ▶ **Political instability**
Qualitative assessment by EIU analysts

- ▶ **Political Terror Scale**
Gibney, Mark, Linda Cornett, Reed Wood, Peter Haschke, Daniel Arnon, and Attilio Pisanò. 2017. The Political Terror Scale 1976-2016. Date Retrieved, from the Political Terror Scale website: <http://www.politicalterroryscale.org>.

- ▶ **Impact of terrorism**
IEP Global Terrorism Index (GTI)

- ▶ **Number of homicides per 100,000 people**
United Nations Office on Drugs and Crime (UNODC) Surveys on Crime Trends and the Operations of Criminal Justice Systems (CTS); EIU estimates

- ▶ **Level of violent crime**
Qualitative assessment by EIU analysts

- ▶ **Likelihood of violent demonstrations**
Qualitative assessment by EIU analysts

- ▶ **Number of jailed population per 100,000 people**
World Prison Brief, Institute for Criminal Policy Research at Birkbeck, University of London

- ▶ **Number of internal security officers and police per 100,000 people**
UNODC CTS; EIU estimates

MILITARISATION



- ▶ **Military expenditure as a percentage of GDP**
The Military Balance, IISS

- ▶ **Number of armed services personnel per 100,000 people**
The Military Balance, IISS

- ▶ **Volume of transfers of major conventional weapons as recipient (imports) per 100,000 people**
Stockholm International Peace Research Institute (SIPRI) Arms Transfers Database

- ▶ **Volume of transfers of major conventional weapons as supplier (exports) per 100,000 people**
SIPRI Arms Transfers Database

- ▶ **Financial contribution to UN peacekeeping missions**
United Nations Committee on Contributions; IEP

- ▶ **Nuclear and heavy weapons capabilities**
The Military Balance, IISS; SIPRI; UN Register of Conventional Arms; IEP

- ▶ **Ease of access to small arms and light weapons**
Qualitative assessment by EIU analysts

METHODOLOGICAL NOTES

WEIGHTING THE INDEX

When the GPI was launched in 2007 the advisory panel of independent experts apportioned scores based on the relative importance of each of the indicators on a scale 1-5. Two sub-component weighted indices were then calculated from the GPI group of indicators:

1. A measure of how at peace internally a country is;
2. A measure of how at peace externally a country is (its state of peace beyond its borders).

The overall composite score and index was then formulated by applying a weight of 60 per cent to the measure of internal peace and 40 per cent for external peace. The heavier weight applied to internal peace was agreed upon by the advisory panel, following robust debate. The decision was based on the innovative notion that a greater level of internal peace is likely to lead to, or at least correlate with, lower external conflict. The weights have been reviewed by the advisory panel prior to the compilation of each edition of the GPI.

MEASURING THE ROBUSTNESS OF THE INDEX

- ▶ Robustness is an important concept in composite index analysis. It is a measure of how often rank comparisons from a composite index are still true if the index is calculated using different weightings. For example, if the GPI is recalculated using a large number of different weighting schemes and Country A ranks higher than Country B in 60 per cent of these recalculations, the statement “Country A is more peaceful than Country B” is considered to be 60 per cent robust.
- ▶ IEP finds that the Global Peace Index (GPI) is at the same level of absolute robustness as the Human Development Index (HDI), a leading measure of development since it was first constructed by the United Nations Development Programme in 1990.
- ▶ Technically, the robustness of the GPI is measured by the fact that 70 per cent of pairwise country comparisons are independent of the weighting scheme chosen. In other words, regardless of the weights attributed to each component of the index 70 per cent of the time the pairwise comparisons between countries are the same.

TABLE A.1

Indicator weights in the GPI

Internal Peace 60% / External Peace 40%

INTERNAL PEACE (Weight 1 to 5)		EXTERNAL PEACE (Weight 1 to 5)	
Perceptions of criminality	3	Military expenditure (% GDP)	2
Security officers and police rate	3	Armed services personnel rate	2
Homicide rate	4	UN peacekeeping funding	2
Incarceration rate	3	Nuclear and heavy weapons capabilities	3
Access to small arms	3	Weapons exports	3
Intensity of internal conflict	5	Refugees and IDPs	4
Violent demonstrations	3	Neighbouring countries relations	5
Violent crime	4	External conflicts fought	2.28
Political instability	4	Deaths from external conflict	5
Political terror	4		
Weapons imports	2		
Terrorism impact	2		
Deaths from internal conflict	5		
Internal conflicts fought	2.56		

The GPI is a composite index of 23 indicators weighted and combined into one overall score. The weighting scheme within any composite index represents the relative importance of each indicator to the overall aim of the measure, in the GPI's case, global peace. To fully understand the representative nature or accuracy of any measure it is necessary to understand how sensitive the results of the index are to the specific weighting scheme used. If the analysis holds true for a large subset of all possible weighting schemes then the results can be called robust. While it is expected that ranks will be sensitive to changes in the weights of any composite index, what is more important in a practical sense is the robustness of country comparisons. One of the core aims of the GPI is to allow for Country A to be compared to Country B. This raises the question that for any two countries, how often is the first ranked more peaceful than the second across the spectrum of weights. The more times that the first country is ranked more peaceful than the second, the more confidence can be invested in the statement "Country A is more peaceful than Country B".

To avoid the computational issue of evaluating every possible combination of 23 indicators, the robustness of pairwise country comparisons has been estimated using the three GPI domains militarisation, societal safety and security and ongoing conflict. Implementing an accepted methodology for robustness, the GPI is calculated for every weighting combination of three weights from 0 to 1 at 0.01 intervals. For computational expedience only weighting schemes that sum to one are selected, resulting in over 5100 recalculated GPI's. Applying this it is found that around 70 per cent of all pairwise country comparisons in the GPI are independent of the weighting scheme, i.e. 100 per cent robust. This is a similar level of absolute robustness as the Human Development Index.

QUALITATIVE SCORING: THE ECONOMIST INTELLIGENCE UNIT APPROACH

The EIU's Country Analysis team plays an important role in producing the GPI by scoring seven qualitative indicators and

filling in data gaps on quantitative indicators when official data is missing. The EIU employs more than 100 full-time country experts and economists, supported by 650 in-country contributors. Analysts generally focus on two or three countries and, in conjunction with local contributors, develop a deep knowledge of a nation's political scene, the performance of its economy and the society in general. Scoring follows a strict process to ensure reliability, consistency and comparability:

1. Individual country analysts score qualitative indicators based on a scoring methodology and using a digital platform;
2. Regional directors use the digital platform to check scores across the region; through the platform they can see how individual countries fare against each other and evaluate qualitative assessments behind proposed score revisions;
3. Indicator scores are checked by the EIU's Custom Research team (which has responsibility for the GPI) to ensure global comparability;
4. If an indicator score is found to be questionable, the Custom Research team, and the appropriate regional director and country analyst discuss and make a judgment on the score;
5. Scores are assessed by the external advisory panel before finalising the GPI;
6. If the expert panel finds an indicator score to be questionable, the Custom Research team, and the appropriate regional director and country analyst discuss and make a final judgment on the score, which is then discussed in turn with the advisory panel.

Because of the large scope of the GPI, occasionally data for quantitative indicators do not extend to all nations. In this case, country analysts are asked to suggest an alternative data source or provide an estimate to fill any gap. This score is checked by Regional Directors to ensure reliability and consistency within the region, and by the Custom Research team to ensure global comparability. Again, indicators are assessed by the external advisory panel before finalisation.

APPENDIX B

GPI indicator sources, definitions & scoring criteria

The information below details the sources, definitions, and scoring criteria of the 23 indicators that form the Global Peace Index. All scores for each indicator are banded or normalised on a scale of 1-5, whereby qualitative indicators are banded into five groupings and quantitative ones scored continuously from 1 to 5 at the third decimal place. The Economist Intelligence Unit has provided imputed estimates in the rare event there are gaps in the quantitative data.

INTERNAL PEACE INDICATORS

Level of Perceived Criminality in Society

Indicator type	Qualitative
Indicator weight	3
Indicator weight (% of total index)	3.8%
Data source	EIU
Measurement period	16 March 2018 to 15 March 2019

Definition: Assessment of the level of perceived criminality in society, ranked from 1-5 (very low to very high) by the EIU's Country Analysis team. Country analysts assess this indicator on an annual basis, for the period March to March.

Scoring Criteria:

- 1 = Very low:** The majority of other citizens can be trusted; very low levels of domestic insecurity.
- 2 = Low:** An overall positive climate of trust with other citizens.
- 3 = Moderate:** Reasonable degree of trust in other citizens.
- 4 = High:** High levels of distrust in other citizens; high levels of domestic security.
- 5 = Very high:** Very high levels of distrust in other citizens; people are extremely cautious in their dealings with others; large number of gated communities, high prevalence of security guards.

Number of Internal Security Officers and Police per 100,000 People

Indicator type	Quantitative
Indicator weight	3
Indicator weight (% of total index)	3.8%
Data source	UNODC Survey of Crime Trends and Operations of Criminal Justice Systems
Measurement period	2015

Alternative Source: EIU. Where data is not provided, the EIU's analysts have filled them based on likely scores from the set bands of the actual data.

Definition: This indicator is sourced from the UNODC Survey of Crime Trends and Operations of Criminal Justice Systems and refers to the civil police force. Police means personnel in public agencies whose principal functions are the prevention, detection and investigation of crime and the apprehension of alleged offenders. It is distinct from national guards or local militia.

Scoring Bands

1/5	2/5	3/5	4/5	5/5
0-199.8	199.9-399.8	399.9-599.8	599.9-799.8	> 799.9

Number of Homicides per 100,000 People

Indicator type	Quantitative
Indicator weight	4
Indicator weight (% of total index)	5%
Data source	UNODC Survey of Crime Trends and Operations of Criminal Justice Systems
Measurement period	2016

Alternative Source: EIU. Where data is not provided, the EIU's analysts have filled them based on likely scores from the set bands of the actual data.

Definition: This indicator comes from the UNODC Survey of Crime Trends and Operations of Criminal Justice Systems. Intentional homicide refers to death deliberately inflicted on a person by another person, including infanticide. The figures refer to the total number of penal code offences or their equivalent, but exclude minor road traffic and other petty offences, brought to the attention of the police or other law enforcement agencies and recorded by one of those agencies.

Scoring Bands

1/5	2/5	3/5	4/5	5/5
0-1.99	2-5.99	6-9.99	10-19.99	> 20

Number of Jailed Population per 100,000 People

Indicator type	Quantitative
Indicator weight	3
Indicator weight (% of total index)	3.8%
Data source	Institute for Criminal Policy Research at Birkbeck, University of London, World Prison Brief
Measurement period	2018

Definition: Figures are from the Institute for Criminal Policy Research, and are compiled from a variety of sources. In almost all cases the original source is the national prison administration of the country concerned, or else the Ministry responsible for the prison administration. Prison population rates per 100,000 people are based on estimates of the national population. In order to compare prison population rates, and to estimate the number of persons held in prison in the countries for which information is not available, median rates have been used by the Institute for Criminal Policy Research to minimise the effect of countries with rates that are untypically high or low. Indeed, comparability can be compromised by different practice in different countries, for example with regard to pre-trial detainees and juveniles, but also psychiatrically ill offenders and offenders being detained for treatment for alcoholism and drug addiction.

Scoring Bands

1/5	2/5	3/5	4/5	5/5
0-126.405	126.406-252.811	252.812-379.217	379.218-505.624	>505.625

Additional Notes: The data provided by the Institute for Criminal Policy Research are not annual averages but indicate the number of jailed population per 100,000 inhabitants in a particular month during the year. The year and month may differ from country to country.

Ease of Access to Small Arms and Light Weapons

Indicator type	Qualitative
Indicator weight	3
Indicator weight (% of total index)	3.8%
Data source	EIU
Measurement period	16 March 2018 to 15 March 2019

Definition: Assessment of the accessibility of small arms and light weapons (SALW), ranked from 1-5 (very limited access to very easy access) by the EIU's Country Analysis team. Country analysts are asked to assess this indicator on an annual basis, for the period from March to March.

Scoring Criteria:

- 1 = Very limited access:** The country has developed policy instruments and best practices, such as firearm licences, strengthening of export controls, codes of conduct, firearms or ammunition marking.
- 2 = Limited access:** The regulation implies that it is difficult, time-consuming and costly to obtain firearms; domestic firearms regulation also reduces the ease with which legal arms are diverted to illicit markets.
- 3 = Moderate access:** There are regulations and commitment to ensure controls on civilian possession of firearms, although inadequate controls are not sufficient to stem the flow of illegal weapons.
- 4 = Easy access:** There are basic regulations, but they are not effectively enforced; obtaining firearms is straightforward.
- 5 = Very easy access:** There is no regulation of civilian possession, ownership, storage, carriage and use of firearms.

Intensity of Organised Internal Conflict

Indicator type	Qualitative
Indicator weight	5
Indicator weight (% of total index)	6.3%
Data source	EIU
Measurement period	16 March 2018 to 15 March 2019

Definition: Assessment of the intensity of conflicts within the country, ranked from 1-5 (no conflict to severe crisis) by the EIU's Country Analysis team. Country analysts are asked to assess this indicator on an annual basis, for the period March to March.

Scoring Criteria:

- 1 = No conflict.**
- 2 = Latent conflict:** Positional differences over definable values of national importance.
- 3 = Manifest conflict:** Explicit threats of violence; imposition of economic sanctions by other countries.
- 4 = Crisis:** A tense situation across most of the country; at least one group uses violent force in sporadic incidents.
- 5 = Severe crisis:** Civil war; violent force is used with a certain continuity in an organised and systematic way throughout the country.

Likelihood of Violent Demonstrations

Indicator type	Qualitative
Indicator weight	3
Indicator weight (% of total index)	3.8%
Data source	EIU
Measurement period	16 March 2018 to 15 March 2019

Definition: Assessment of the likelihood of violent demonstrations ranked from 1-5 (very low to very high) by the EIU's Country Analysis team, based on the question, "Are violent demonstrations or violent civil/labour unrest likely to pose a threat to property or the conduct of business over the next two years?" Country analysts assess this question on a quarterly basis. The score provided for 16 March 2018 to 15 March 2019 is the average of the scores given for each quarter.

Scoring Criteria

"Are violent demonstrations or violent civil/labour unrest likely to pose a threat to property or the conduct of business over the next two years?"

1/5	Strongly no
2/5	No
3/5	Somewhat of a problem
4/5	Yes
5/5	Strongly yes

Level of Violent Crime

Indicator type	Qualitative
Indicator weight	4
Indicator weight (% of total index)	5%
Data source	EIU
Measurement period	16 March 2018 to 15 March 2019

Definition: Assessment of the likelihood of violent crime ranked from 1 to 5 (very low to very high) by the EIU's Country Analysis team based on the question, "Is violent crime likely to pose a significant problem for government and/or business over the next two years?" Country analysts assess this question on a quarterly basis. The score provided for 16 March 2018 to 15 March 2019 is the average of the scores given for each quarter.

Scoring Criteria

"Is violent crime likely to pose a significant problem for government and/or business over the next two years?"

1/5	Strongly no
2/5	No
3/5	Somewhat of a problem
4/5	Yes
5/5	Strongly yes

Political Instability

Indicator type	Qualitative
Indicator weight	4
Indicator weight (% of total index)	5%
Data source	EIU
Measurement period	16 March 2018 to 15 March 2019

Definition: Assessment of political instability ranked from 0 to 100 (very low to very high instability) by the EIU's Country Analysis team, based on five questions. This indicator aggregates five other questions on social unrest, orderly transfers, opposition stance, excessive executive authority and an international tension sub-index. Country analysts assess this question on a quarterly basis. The score provided for 16 March 2018 to 15 March 2019 is the average of the scores given for each quarter.

Specific Questions:

- What is the risk of significant social unrest during the next two years?
- How clear, established and accepted are constitutional mechanisms for the orderly transfer of power from one government to another?
- How likely is it that an opposition party or group will come to power and cause a significant deterioration in business operating conditions?
- Is excessive power concentrated or likely to be concentrated in the executive so that executive authority lacks accountability and possesses excessive discretion?
- Is there a risk that international disputes/tensions will negatively affect the economy and/or polity?

Scoring Bands

1/5	2/5	3/5	4/5	5/5
0–20.4	20.5–40.4	40.5–60.4	60.5–80.4	80.5–100

Political Terror Scale

Indicator type	Qualitative
Indicator weight	4
Indicator weight (% of total index)	5%
Data source	Gibney, Mark, Linda Cornett, Reed Wood, Peter Haschke, Daniel Arnon, and Attilio Pisanò. 2017. The Political Terror Scale 1976-2016. Date Retrieved, from the Political Terror Scale website: http://www.politicalterrorscale.org .
Measurement period	2017

Definition: The Political Terror Scale (PTS) measures levels of political violence and terror that a country experiences in a given year based on a 5-level "terror scale" originally developed by Freedom House. The data used in compiling this index comes from two different sources: the yearly country reports of Amnesty International and the US Department of State's Country Reports on Human Rights Practices. The average of the two scores is taken.

Scoring Criteria

- 1 = Countries under a secure rule of law, people are not imprisoned for their view, and torture is rare or exceptional. Political murders are extremely rare.
- 2 = There is a limited amount of imprisonment for nonviolent political activity. However, few persons are affected, torture and beatings are exceptional. Political murder is rare.
- 3 = There is extensive political imprisonment, or a recent history of such imprisonment. Execution or other political murders and brutality may be common. Unlimited detention, with or without a trial, for political views is accepted.
- 4 = Civil and political rights violations have expanded to large numbers of the population. Murders, disappearances, and torture are a common part of life. In spite of its generality, on this level terror affects those who interest themselves in politics or ideas.
- 5 = Terror has expanded to the whole population. The leaders of these societies place no limits on the means or thoroughness with which they pursue personal or ideological goals.

Volume of Transfers of Major Conventional Weapons, as recipient (imports) per 100,000 people

Indicator type	Quantitative
Indicator weight	2
Indicator weight (% of total index)	2.5%
Data source	SIPRI Arms Transfers Database; EIU
Measurement period	2014-2018

Definition: Measures the total volume of major conventional weapons imported by a country between 2014 and 2018, divided by the average population in this time period at the 100,000 people level (population data supplied by the EIU). The SIPRI Arms Transfers Database covers all international sales and gifts of major conventional weapons and the technology necessary for their production. The transfer equipment or technology is from one country, rebel force or international organisation to another country, rebel force or international organisation. Major conventional weapons include: aircraft, armoured vehicles, artillery, radar systems, missiles, ships, engines.

Scoring Bands

1/5	2/5	3/5	4/5	5/5
0-7.233	7.234-14.468	14.469-21.702	21.703-28.936	>28.937

Impact of Terrorism

Indicator type	Quantitative
Indicator weight	2
Indicator weight (% of total index)	2.5%
Data source	IEP Global Terrorism Index (GTI)
Measurement period	1 Jan 2014 to 20 March 2019

Definition: Terrorist incidents are defined as “intentional acts of violence or threat of violence by a non-state actor.” This means an

incident has to meet three criteria in order for it to be counted as a terrorist act:

- A The incident must be intentional – the result of a conscious calculation on the part of a perpetrator.
- B The incident must entail some level of violence or threat of violence, including property violence as well as violence against people.
- C The perpetrators of the incidents must be sub-national actors. This database does not include acts of state terrorism.

For all incidents listed, at least two of the following three criteria must be present:

1. The act must be aimed at attaining a political, economic, religious or social goal.
2. There must be evidence of an intention to coerce, intimidate or convey some other message to a larger audience (or audiences) than the immediate victims.
3. The action must be outside the context of legitimate warfare activities.

Methodology: Using the comprehensive, event-based Global Terrorism Database, the GTI combines four variables to develop a composite score: the number of terrorist incidents in a given year, the total number of fatalities in a given year, the total number of injuries caused in a given year and the approximate level of property damage in a given year. The composite score captures the direct effects of terrorist-related violence, in terms of its physical effect, but also attempts to reflect the residual effects of terrorism in terms of emotional wounds and fear by attributing a weighted average to the damage inflicted in previous years. As of the date of publication, the Global Terrorism Database only logs events up to 31 December 2017. To assess the impact of terrorism between this date and 20 March 2019 cutoff, IEP uses data from publicly available third party sources to impute terrorist activity in that period.

Scoring Bands

1/5	2/5	3/5	4/5	5/5
0-13.479	13.48-181.699	181.7-2,449.309	2,449.31-33,015.949	>33,015.95

Number Of Deaths From Organised Internal Conflict

Indicator type	Quantitative
Indicator weight	5
Indicator weight (% of total index)	6.3%
Data source	International Institute for Strategic Studies (IISS) Armed Conflict Database (ACD)
Measurement period	2016-2017

Definition: This indicator uses the UCDP's definition of conflict. UCDP defines conflict as: “a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in a year.” Statistics are compiled from the most recent edition of the IISS

ACD, which has the following definition of armed conflict-related fatalities: 'Fatality statistics relate to military and civilian lives lost as a direct result of an armed conflict'.

The figures relate to the country which is the main area of conflict. For some conflicts no reliable statistics are available. Estimates of war fatalities vary according to source, sometimes by a wide margin. In compiling data on fatalities, the IISS has used its best estimates and takes full responsibility for these figures. Some overall fatality figures have been revised in light of new information. Changes in fatality figures may therefore occur as a result of such revisions as well as because of increased fatalities. Fatality figures for terrorism may include deaths inflicted by the government forces in counter-terrorism operations.

Scoring Bands

1/5	2/5	3/5	4/5	5/5
0–23 deaths	24–998 deaths	999–4,998 deaths	4,999–9,998 deaths	> 9,999 deaths

Number and Duration of Internal Conflicts

Indicator type	Quantitative
Indicator weight	2.56
Indicator weight (% of total index)	3.2%
Data sources	IEP; UCDP Battle-Related Deaths Dataset, Non-State Conflict Dataset and One-sided Violence Dataset
Measurement period	2013–2017

Definition: This indicator measures the number and duration of conflicts that occur within a specific country's legal boundaries. Information for this indicator is sourced from three datasets from Uppsala Conflict Data Program (UCDP): the Battle-Related Deaths Dataset, Non-State Conflict Dataset and One-sided Violence Dataset. The score for a country is determined by adding the scores for all individual conflicts which have occurred within that country's legal boundaries over the last five years.

Each individual conflict score is based on the following factors:

Number:

- Number of interstate armed conflicts, internal armed conflict (civil conflicts), internationalised internal armed conflicts, one-sided conflict and non-state conflict located within a country's legal boundaries.
- If a conflict is a war (1,000+ battle-related deaths) it receives a score of one; if it is an armed conflict (25–999 battle-related deaths) it receives a score of 0.25.

Duration:

- A score is assigned based on the number of years out of the last five that conflict has occurred. For example, if a conflict last occurred five years ago that conflict will receive a score of one out of five.

The cumulative conflict scores are then added and banded to establish a country's score. This indicator is two years lagging due to when the UCDP data is released.

Scoring Bands

1/5	2/5	3/5	4/5	5/5
No internal conflict	Combined conflict score of up to 4.75	Combined conflict score of up to 9.5	Combined conflict score of up to 14.25	A combined conflict score of 19 or above. This shows very high levels of internal conflict.

EXTERNAL PEACE INDICATORS

Military Expenditure as a Percentage of GDP

Indicator type	Quantitative
Indicator weight	2
Indicator weight (% of total index)	2.8%
Data source	International Institute for Strategic Studies, The Military Balance 2019
Measurement period	2018

Alternative Source: When no data was provided, several alternative sources were used: National Public Expenditure Accounts, SIPRI information and the Military Balance 2019. Alternative data are from 2008 to 2017, depending upon data availability.

Definition: Cash outlays of central or federal government to meet the costs of national armed forces—including strategic, land, naval, air, command, administration and support forces as well as paramilitary forces, customs forces and border guards if these are trained and equipped as a military force. Published EIU data on nominal GDP (or the World Bank when unavailable) was used to arrive at the value of military expenditure as a percentage of GDP.

Scoring Criteria: This indicator is scored using a min-max normalisation. Applying this method, a country's score is based on the distance of its military expenditure as a share of GDP from the benchmarks of 0% (for a score of 1) and 8.37% or above (for a score of 5). The bands, while linear, approximately conform as follows:

1/5	2/5	3/5	4/5	5/5
0–2.092	2.093–4.184	4.185–6.277	6.278–8.37	>8.371

Number of Armed Services Personnel per 100,000 people

Indicator type	Quantitative
Indicator weight	2
Indicator weight (% of total index)	2.8%
Data source	International Institute for Strategic Studies, The Military Balance 2019
Measurement period	2019

Alternative Source: World Bank population data used if unavailable from the EIU.

Definition: Active armed services personnel comprise all service men and women on full-time duty in the army, navy, air force and joint forces (including conscripts and long-term assignments from the reserves). Population data provided by the EIU.

Scoring Bands

1/5	2/5	3/5	4/5	5/5
0-657.744	657.745-1,315.489	1,315.49-1,973.234	1,973.235-2,630.98	>2,630.981

Additional Notes: The Israeli reservist force is used to calculate Israel's number of armed services personnel.

Financial Contribution to UN Peacekeeping Missions

Indicator type	Quantitative
Indicator weight	2
Indicator weight (% of total index)	2.8%
Data source	IEP; United Nations Committee on Contributions
Measurement period	2015–2017

Methodology: The UNFU indicator measures whether UN member countries meet their UN peacekeeping funding commitments. Although countries may fund other programs in development or peacebuilding, the records on peacekeeping are easy to obtain and understand and provide an instructive measure of a country's commitment to peace. The indicator calculates the percentage of countries' "outstanding payments versus their annual assessment to the budget of the current peacekeeping missions" over an average of three years. This ratio is derived from data provided by the United Nations Committee on Contributions Status reports. The indicator is compiled as follows:

1. The status of contributions by UN member states is obtained.
2. For the relevant peacekeeping missions, the assessments (for that year only) and the collections (for that year only) are recorded. From this, the outstanding amount is calculated for that year.
3. The ratio of outstanding payments to assessments is calculated. By doing so a score between 0 and 1 is obtained. Zero indicates no money is owed; a country has met their funding commitments. A score of 1 indicates that a country has not paid any of their assessed contributions. Given that the scores already fall between 0 and 1, they are easily banded into a score between 1 and 5. The final banded score is a weighted sum of the current year and the previous two years. The weightings are 0.5 for the current year, 0.3 for the previous year and 0.2 for two years prior. Hence it is a three year weighted average.
4. Outstanding payments from previous years and credits are not included. The scoring is linear to one decimal place.

Scoring Criteria

1/5	0–25% of stated contributions owed
2/5	26–50% of stated contributions owed
3/5	51–75% of stated contributions owed
4/5	75–99% of stated contributions owed
5/5	100% of stated contributions owed (no contributions made in past three years)

Additional Notes: All United Nations member states share the costs of United Nations peacekeeping operations. The General Assembly apportions these expenses based on a special scale of assessments applicable to peacekeeping. This scale takes into account the relative economic wealth of member states, with the permanent members of the Security Council required to pay a larger share because of their special responsibility for the maintenance of international peace and security. Due to delays in the release of new data, the 2018 indicator scores take into account a weighted average from 2014 to 2016.

Nuclear and Heavy Weapons Capabilities

Indicator type	Quantitative
Indicator weight	3
Indicator weight (% of total index)	4.2%
Data source	IEP; SIPRI; IISS The Military Balance; United Nations Register of Conventional Arms
Measurement period	2018

Methodology: This indicator is based on a categorised system for rating the destructive capability of a country's stock of heavy weapons. Holdings are those of government forces and do not include holdings of armed opposition groups. Heavy weapons numbers were determined using a combination of the International Institute for Strategic Studies, The Military Balance and the United Nations Register of Conventional Arms.

There are five categories of weapons, each of which receive a certain number of weighted points. The five weapons categories are weighted as follows:

1. Armoured vehicle and artillery pieces = 1 point
2. Tank = 5 points
3. Combat aircraft and combat helicopter = 20 points
4. Warship = 100 points
5. Aircraft carrier and nuclear submarine = 1000 points

Countries with nuclear capabilities automatically receive the maximum score of five. Other scores are expressed to the second decimal point, adopting a min-max normalisation that sets the max at two standard deviations above the average raw score. Nuclear-weapon equipped states are determined by the SIPRI World Nuclear Forces chapter in the SIPRI Yearbook, as follows:

1/5	Nil-18,185
2/5	18,185-36,368
3/5	36,368-54,553
4/5	54,553-72,737
5/5	States with nuclear capability receive a 5, or states with heavy weapons capability of 72,738 or in the top 2% of heavy weapons receive a 5.

Volume of Transfers of Major Conventional Weapons as Supplier (Exports) per 100,000 people

Indicator type	Quantitative
Indicator weight	3
Indicator weight (% of total index)	4.2%
Data source	SIPRI Arms Transfers Database
Measurement period	2014-2018

Definition: Measures the total volume of major conventional weapons exported by a country between 2010 and 2014 divided by the average population during this time period (population data supplied by the EIU). The SIPRI Arms Transfers Database covers all international sales and gifts of major conventional weapons and the technology necessary for the production of them. The transfer equipment or technology is from one country, rebel force or international organisation to another country, rebel force or international organisation. Major conventional weapons include: aircraft, armoured vehicles, artillery, radar systems, missiles, ships and engines.

Scoring Bands

1/5	2/5	3/5	4/5	5/5
0-3.681	3.682-7.364	7.365-11.046	11.047-14.729	>14.73

Number of Refugees and Internally Displaced People as a Percentage of the Population

Indicator type	Quantitative
Indicator weight	4
Indicator weight (% of total index)	5.7%
Data source	UNHCR Mid-Year Trends 2018; International Displacement Monitoring Centre (IDMC), 2017
Measurement period	2017-2018

Definition: Refugee population by country or territory of origin plus the number of a country's internally displaced people (IDPs), as a percentage of the country's total population.

Scoring Bands

1/5	2/5	3/5	4/5	5/5
0-3.034	3.035-6.069	6.07-9.104	9.105-12.139	>12.14

Relations with Neighbouring Countries

Indicator type	Qualitative
Indicator weight	5
Indicator weight (% of total index)	7.1%
Data source	EIU
Measurement period	16 March 2018 to 15 March 2019

Definition: Assessment of the intensity of contentiousness of neighbours, ranked from 1-5 (peaceful to very aggressive) by the EIU's Country Analysis team. Country analysts are asked to assess this indicator on an annual basis, for the period March to March.

Scoring Criteria:

- 1 = Peaceful:** None of the neighbours has attacked the country since 1950.
- 2 = Low:** The relationship with neighbours is generally good, but aggressiveness is manifest in politicians' speeches or in protectionist measures.
- 3 = Moderate:** There are serious tensions and consequent economic and diplomatic restrictions from other countries.
- 4 = Aggressive:** Open conflicts with violence and protests.
- 5 = Very aggressive:** Frequent invasions by neighbouring countries.

Number, duration and role in external conflicts

Indicator type	Quantitative
Indicator weight	2.28
Indicator weight (% of total index)	3.2%
Data source	IEP; UCDP Battle-Related Deaths Dataset
Measurement period	2013-2017

Definition: This indicator measures the number and duration of extraterritorial conflicts a country is involved in. Information for this indicator is sourced from the UCDP Battle-Related Deaths Dataset. The score for a country is determined by adding all individual conflict scores where that country is involved as an actor in a conflict outside its legal boundaries. Conflicts are not counted against a country if they have already been counted against that country in the number and duration of internal conflicts indicator.

Each individual conflict score is based on the following factors:

Number:

- Number of internationalised internal armed conflicts and interstate armed conflicts.
- If a conflict is a war (1,000+ battle related deaths)

it receives a score of one; if it is an armed conflict (25-999 battle related deaths) it receives a score of 0.25.

Duration:

- A score is assigned based on the number of years out of the last five that conflict has occurred. For example, if a conflict last occurred five years ago that conflict will receive a score of one out of five.

Role:

- If the country is a primary party to the conflict, that conflict receives a score of one; if it is a secondary party (supporting the primary party), that conflict receives a score of 0.25.
- If a country is a party to a force covered by a relevant United Nations Security Council Resolution, then the entire conflict score is multiplied by a quarter; if not, it receives a full score.

The different conflict scores are then added and banded to establish a country's score. This indicator is two years lagging due to when the UCDP data is released.

Scoring Bands

1/5	2/5	3/5	4/5	5/5
No external conflict	Combined conflict score of up to 1.5	Combined conflict score of up to 3	Combined conflict score of up to 4.5	A combined conflict score of 6 or above. This shows very high levels of external conflict.

Number Of Deaths From Organised External Conflict

Indicator type	Quantitative
Indicator weight	5
Indicator weight (% of total index)	7.1%
Data source	UCDP Armed Conflict Dataset
Measurement period	2016-2017

Alternate Source: When no data was provided, several alternative sources have been used: International Institute for Strategic Studies (IISS) Armed Conflict Database; the Iraq Coalition Casualty Count, and the EIU.

Definition: This indicator uses the UCDP's definition of conflict as *"a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in a year"*.

Scoring Bands

1/5	2/5	3/5	4/5	5/5
0-24 deaths	25-998 deaths	999-4,998 deaths	4,999-9,998 deaths	> 9,999 deaths

APPENDIX C

GPI Domain Scores

TABLE C.1

Ongoing Domestic and International Conflict domain, most peaceful to least

COUNTRY	SCORE	COUNTRY	SCORE	COUNTRY	SCORE
Botswana	1.000	Croatia	1.426	Greece	1.829
Chile	1.000	Montenegro	1.426	South Korea	1.829
Mauritius	1.000	Poland	1.426	Bosnia and Herzegovina	1.876
Uruguay	1.000	Slovakia	1.426	Togo	1.888
Singapore	1.012	Slovenia	1.426	Morocco	1.900
Bulgaria	1.024	Madagascar	1.438	Djibouti	1.903
Iceland	1.024	Bhutan	1.462	Algeria	1.927
New Zealand	1.024	Hungary	1.462	Bangladesh	1.979
Malaysia	1.054	Indonesia	1.462	China	1.982
Switzerland	1.059	Lithuania	1.462	Kyrgyz Republic	2.006
Canada	1.068	The Gambia	1.462	Nicaragua	2.006
Australia	1.071	Latvia	1.474	Venezuela	2.006
Austria	1.083	Benin	1.486	Zimbabwe	2.006
Czech Republic	1.083	Cambodia	1.486	United States of America	2.011
Portugal	1.083	El Salvador	1.486	Tajikistan	2.030
Romania	1.083	Liberia	1.486	Thailand	2.035
Italy	1.107	Nepal	1.486	Colombia	2.104
Netherlands	1.119	Guinea	1.501	Bahrain	2.137
Germany	1.122	Estonia	1.509	Kenya	2.207
United Kingdom	1.139	Kuwait	1.513	Burundi	2.209
Belgium	1.173	Ghana	1.545	Israel	2.231
France	1.191	Qatar	1.545	Niger	2.233
Argentina	1.201	Sierra Leone	1.545	Chad	2.309
Costa Rica	1.201	Cyprus	1.604	Azerbaijan	2.313
Jamaica	1.201	Gabon	1.604	Saudi Arabia	2.331
Namibia	1.201	Guatemala	1.604	Ethiopia	2.367
Panama	1.201	Haiti	1.604	Armenia	2.437
Trinidad and Tobago	1.201	Kazakhstan	1.604	Myanmar	2.454
Zambia	1.201	Paraguay	1.604	Cameroon	2.498
Albania	1.225	Serbia	1.604	Iran	2.523
Ireland	1.225	Taiwan	1.604	Philippines	2.529
Mongolia	1.225	United Arab Emirates	1.604	Mali	2.582
Spain	1.240	Eritrea	1.619	North Korea	2.610
Brazil	1.247	North Macedonia	1.628	Palestine	2.618
Finland	1.308	Sri Lanka	1.628	Mexico	2.620
Norway	1.308	Republic of the Congo	1.631	Lebanon	2.682
Denmark	1.320	Mozambique	1.634	Egypt	2.691
Sweden	1.323	South Africa	1.651	Russia	2.933
Bolivia	1.403	Guinea-Bissau	1.687	India	3.039
Dominican Republic	1.403	Mauritania	1.687	Nigeria	3.102
Ecuador	1.403	Senegal	1.687	Central African Republic	3.103
Equatorial Guinea	1.403	Tunisia	1.709	Iraq	3.161
Guyana	1.403	Cote d' Ivoire	1.717	Ukraine	3.173
Honduras	1.403	Jordan	1.729	Democratic Republic of the Congo	3.197
Japan	1.403	Burkina Faso	1.732	Sudan	3.291
Laos	1.403	Rwanda	1.743	Somalia	3.387
Malawi	1.403	Uganda	1.800	Libya	3.400
Oman	1.403	Belarus	1.805	Turkey	3.453
Papua New Guinea	1.403	Cuba	1.805	Pakistan	3.594
Peru	1.403	Kosovo	1.805	South Sudan	3.600
Eswatini	1.403	Lesotho	1.805	Yemen	3.670
Timor-Leste	1.403	Moldova	1.805	Afghanistan	3.674
Vietnam	1.403	Turkmenistan	1.805	Syria	3.828
Angola	1.418	Uzbekistan	1.805		
Tanzania	1.418	Georgia	1.829		

TABLE C.2

Societal Safety and Security domain, most peaceful to least

COUNTRY	SCORE	COUNTRY	SCORE	COUNTRY	SCORE
Iceland	1.131	Cyprus	2.290	Burkina Faso	2.695
Singapore	1.233	Kazakhstan	2.300	Turkmenistan	2.705
Norway	1.243	Uruguay	2.312	Togo	2.710
Switzerland	1.274	United States of America	2.319	Uganda	2.722
Japan	1.276	Saudi Arabia	2.325	Argentina	2.740
Denmark	1.280	India	2.329	Dominican Republic	2.763
New Zealand	1.395	North Macedonia	2.332	Trinidad and Tobago	2.787
Slovenia	1.395	Morocco	2.339	Bahrain	2.819
Portugal	1.413	The Gambia	2.353	Myanmar	2.845
Finland	1.417	Armenia	2.357	Cote d' Ivoire	2.858
Austria	1.423	Sri Lanka	2.358	Guyana	2.875
Canada	1.438	Liberia	2.388	Iran	2.882
Sweden	1.495	Albania	2.392	Ethiopia	2.887
Australia	1.500	Zambia	2.415	Niger	2.906
Netherlands	1.557	Tanzania	2.419	Thailand	2.908
Ireland	1.589	Bosnia and Herzegovina	2.420	Papua New Guinea	2.911
South Korea	1.595	Rwanda	2.448	Palestine	2.922
Czech Republic	1.611	Panama	2.449	Jamaica	2.924
Bhutan	1.624	Equatorial Guinea	2.450	Cameroon	2.943
Qatar	1.652	Mongolia	2.452	Nicaragua	2.949
Germany	1.653	Nepal	2.454	Chad	2.959
United Arab Emirates	1.737	Madagascar	2.462	Pakistan	2.987
Slovakia	1.746	Kyrgyz Republic	2.466	Zimbabwe	3.035
Taiwan	1.773	Algeria	2.469	Republic of the Congo	3.046
Hungary	1.814	Moldova	2.470	Philippines	3.064
Belgium	1.824	Benin	2.480	Guatemala	3.065
Croatia	1.854	Namibia	2.490	North Korea	3.100
Poland	1.880	Belarus	2.492	Russia	3.116
United Kingdom	1.895	Israel	2.510	Mauritania	3.120
Greece	1.908	Uzbekistan	2.510	Brazil	3.138
Romania	1.914	Georgia	2.511	Mexico	3.156
Kuwait	1.920	Bangladesh	2.517	El Salvador	3.184
Spain	1.943	China	2.518	Lebanon	3.187
France	1.949	Bolivia	2.529	Turkey	3.224
Ghana	1.976	Kosovo	2.529	Ukraine	3.259
Estonia	1.983	Tunisia	2.533	Honduras	3.283
Lithuania	1.985	Paraguay	2.534	Nigeria	3.296
Oman	1.998	Ecuador	2.539	South Africa	3.301
Malaysia	2.000	Cuba	2.546	Sudan	3.311
Bulgaria	2.032	Cambodia	2.552	Burundi	3.333
Mauritius	2.044	Tajikistan	2.552	Mali	3.356
Latvia	2.067	Djibouti	2.565	Colombia	3.417
Serbia	2.086	Montenegro	2.574	Eritrea	3.431
Chile	2.111	Mozambique	2.585	Libya	3.618
Vietnam	2.116	Lesotho	2.600	Venezuela	3.680
Italy	2.122	Azerbaijan	2.611	Yemen	3.778
Costa Rica	2.142	Egypt	2.619	Somalia	3.847
Sierra Leone	2.161	Gabon	2.636	Syria	3.869
Malawi	2.191	Angola	2.642	Democratic Republic of the Congo	3.980
Laos	2.197	Peru	2.647	Iraq	4.050
Jordan	2.223	Guinea-Bissau	2.659	Central African Republic	4.061
Indonesia	2.231	Haiti	2.665	South Sudan	4.090
Botswana	2.243	Eswatini	2.666	Afghanistan	4.198
Timor-Leste	2.255	Kenya	2.691		
Senegal	2.280	Guinea	2.693		

TABLE C.1

Militarisation domain, most peaceful to least

COUNTRY	SCORE
Iceland	1.032
Hungary	1.151
Slovenia	1.179
New Zealand	1.186
Moldova	1.241
Portugal	1.282
Ireland	1.302
Malaysia	1.345
Czech Republic	1.349
Austria	1.354
Bhutan	1.359
Denmark	1.362
Slovakia	1.388
Mongolia	1.399
Latvia	1.415
Madagascar	1.428
Indonesia	1.446
Japan	1.458
Senegal	1.485
Bosnia and Herzegovina	1.499
Burundi	1.501
Mauritius	1.502
Panama	1.504
Tanzania	1.505
Canada	1.506
Belgium	1.539
Montenegro	1.547
Thailand	1.553
Estonia	1.558
Cyprus	1.569
Myanmar	1.569
Croatia	1.570
Kosovo	1.575
Poland	1.579
Timor-Leste	1.591
Liberia	1.598
Zambia	1.602
Guyana	1.605
Rwanda	1.608
Eswatini	1.609
Cuba	1.612
Malawi	1.615
Sierra Leone	1.621
Lithuania	1.622
Haiti	1.624
Serbia	1.630
Botswana	1.634
Tunisia	1.648
Philippines	1.654
Albania	1.656
Uruguay	1.657
Costa Rica	1.661
Dominican Republic	1.664
Kyrgyz Republic	1.664
Nicaragua	1.665

COUNTRY	SCORE
Bangladesh	1.668
Jamaica	1.683
Bulgaria	1.689
Chile	1.697
Laos	1.700
North Macedonia	1.707
Mexico	1.723
El Salvador	1.728
Papua New Guinea	1.739
Angola	1.744
The Gambia	1.749
Cote d' Ivoire	1.764
Niger	1.770
Peru	1.773
Ethiopia	1.781
Togo	1.783
Argentina	1.784
Kenya	1.794
Australia	1.796
Guatemala	1.801
Uganda	1.808
Kazakhstan	1.809
Romania	1.812
Ecuador	1.816
Georgia	1.821
Taiwan	1.823
Namibia	1.827
Morocco	1.837
Benin	1.843
Venezuela	1.852
Tajikistan	1.853
Ghana	1.860
Mali	1.865
Mauritania	1.872
Sri Lanka	1.877
Finland	1.881
South Africa	1.882
Bahrain	1.883
Sweden	1.884
Equatorial Guinea	1.886
Paraguay	1.891
Belarus	1.910
Cameroon	1.924
Burkina Faso	1.925
Gabon	1.926
Spain	1.928
Nepal	1.938
Mozambique	1.940
Armenia	1.942
Lesotho	1.944
Germany	1.956
Iran	1.969
Eritrea	1.970
Honduras	1.988
Palestine	1.990

COUNTRY	SCORE
Democratic Republic of the Congo	2.003
Qatar	2.007
Kuwait	2.015
China	2.016
Italy	2.022
Republic of the Congo	2.035
Guinea	2.037
Djibouti	2.038
Switzerland	2.039
Jordan	2.040
Cambodia	2.043
Nigeria	2.045
Netherlands	2.060
Singapore	2.063
Colombia	2.083
Turkey	2.083
Sudan	2.092
Uzbekistan	2.102
Chad	2.108
Vietnam	2.111
Bolivia	2.116
Zimbabwe	2.138
Ukraine	2.157
Trinidad and Tobago	2.168
Greece	2.173
Egypt	2.187
Turkmenistan	2.187
Brazil	2.211
Azerbaijan	2.233
Algeria	2.243
Central African Republic	2.257
Somalia	2.261
Guinea-Bissau	2.319
Lebanon	2.329
South Korea	2.381
Afghanistan	2.403
Norway	2.403
United Arab Emirates	2.429
South Sudan	2.470
Yemen	2.484
United Kingdom	2.555
India	2.566
Iraq	2.569
Pakistan	2.575
Libya	2.661
Syria	2.718
Oman	2.734
Saudi Arabia	2.749
France	2.766
North Korea	3.057
United States of America	3.073
Russia	3.252
Israel	3.880

APPENDIX D

Economic Cost of Violence

The economic impact of violence includes the direct and indirect costs of violence as well as an economic multiplier applied to the direct costs. The economic cost of violence includes only the direct and indirect costs. Per capita and percentage-of-GDP results are calculated using the economic cost of violence.

TABLE D.1

Economic cost of violence

RANK (% GDP)	COUNTRY	ECONOMIC COST OF VIOLENCE (MILLIONS, 2018 PPP)	PER CAPITA	ECONOMIC COST OF VIOLENCE AS PERCENTAGE OF GDP	ECONOMIC IMPACT OF VIOLENCE (MILLIONS, 2018 PPP)
1	Syria	28,942.8	1,582.9	67%	41,213.7
2	Afghanistan	32,815.3	902.2	47%	53,887.6
3	Central African Republic	1,408.9	297.4	42%	1,647.6
4	North Korea	5,901.9	230.4	34%	11,163.2
5	Iraq	204,120.9	5,188.7	32%	319,928.0
6	Venezuela	57,167.1	1,765.4	30%	65,643.9
7	Cyprus	9,230.4	7,762.6	30%	10,545.3
8	Somalia	1,800.4	118.6	26%	2,350.8
9	Colombia	180,445.6	3,648.0	25%	224,767.5
10	El Salvador	11,270.1	1,757.8	22%	14,761.5
11	Libya	27,187.3	4,201.4	22%	46,039.0
12	Yemen	15,774.4	545.5	21%	23,403.7
13	Sudan	34,067.9	820.7	17%	47,809.9
14	South Sudan	13,198.5	1,021.6	17%	15,181.0
15	Honduras	7,447.9	790.9	16%	9,338.4
16	Lesotho	1,026.2	453.4	16%	1,526.2
17	Mali	6,213.7	325.2	15%	10,228.2
18	Jamaica	3,743.6	1,291.5	14%	5,272.9
19	Georgia	5,463.9	1,398.4	14%	7,516.0
20	Congo, DRC	9,797.4	116.6	14%	11,549.3
21	Ukraine	50,058.7	1,137.5	14%	76,246.1
22	Saudi Arabia	237,616.0	7,081.5	13%	466,991.5
23	Palestine	1,889.8	374.0	13%	3,779.7
24	Oman	25,178.4	5,213.0	13%	49,729.9
25	Eritrea	2,233.2	430.5	13%	2,898.1
26	South Africa	97,408.8	1,697.1	13%	145,899.2
27	Mauritania	2,146.0	472.7	12%	3,795.5
28	Trinidad & Tobago	5,170.6	3,767.0	12%	7,717.6
29	Russia	447,345.7	3,107.3	12%	758,667.9
30	Burundi	918.1	81.9	12%	1,369.1
31	Republic of the Congo	3,293.1	609.8	12%	5,365.9
32	Namibia	3,034.6	1,172.7	11%	5,143.6
33	Azerbaijan	18,169.5	1,830.9	11%	28,394.3
34	United Arab Emirates	72,701.1	7,619.4	10%	143,140.9
35	Eswatini	1,211.4	870.6	10%	1,986.7
36	Mexico	240,075.9	1,836.0	10%	333,129.8
37	Turkey	217,098.4	2,650.2	10%	329,776.2
38	Kuwait	28,645.1	6,824.9	10%	55,777.4
39	Jordan	8,460.6	854.3	10%	16,507.3
40	Botswana	3,691.8	1,582.3	9%	5,984.4
41	Guatemala	12,795.0	741.9	9%	16,791.1
42	Brazil	297,696.7	1,411.8	9%	418,128.7
43	Chad	2,652.2	172.7	9%	4,367.0
44	Guyana	581.6	743.5	9%	843.3
45	Algeria	56,625.3	1,348.0	9%	110,126.6

TABLE D.1

Economic cost of violence (continued)

ECONOMIC COST OF VIOLENCE (Rank by % GDP)	COUNTRY	ECONOMIC COST OF VIOLENCE (MILLIONS, 2018 PPP)	PER CAPITA	ECONOMIC COST OF VIOLENCE AS PERCENTAGE OF GDP	ECONOMIC IMPACT OF VIOLENCE (MILLIONS, 2018 PPP)
46	Bosnia & Herzegovina	4,010.0	1,144.6	9%	6,149.6
47	Cuba	8,177.3	711.7	8%	12,621.6
48	Uzbekistan	18,628.8	575.6	8%	35,289.9
49	United States	1,620,059.6	4,957.8	8%	2,833,177.6
50	Myanmar	19,163.7	355.8	8%	27,525.5
51	Bahrain	5,775.6	3,685.8	8%	11,125.9
52	Angola	16,021.9	520.6	8%	29,713.4
53	Montenegro	973.8	1,547.7	8%	1,781.8
54	Lebanon	7,014.6	1,151.2	8%	12,763.1
55	Liberia	480.3	99.0	8%	892.4
56	Niger	1,944.1	87.1	8%	3,492.2
57	Armenia	2,149.6	732.6	8%	3,951.9
58	Djibouti	263.6	271.4	8%	461.6
59	Serbia	8,156.3	930.9	8%	14,884.5
60	Philippines	65,364.3	613.7	7%	90,782.8
61	Lithuania	6,888.4	2,394.7	7%	11,424.4
62	Nigeria	81,856.4	417.9	7%	103,152.8
63	Pakistan	79,382.4	395.3	7%	123,485.8
64	Kosovo	527.0	274.5	7%	1,054.0
65	Israel	24,248.0	2,868.6	7%	46,179.0
66	Latvia	3,828.2	1,983.6	7%	6,706.8
67	United Kingdom	198,321.1	2,979.0	7%	324,908.4
68	North Macedonia	2,180.7	1,045.9	7%	4,112.7
69	Bulgaria	9,991.8	1,419.9	7%	18,661.3
70	Gabon	2,457.0	1,188.4	7%	4,236.8
71	Estonia	2,755.4	2,108.5	7%	4,831.3
72	Costa Rica	5,497.1	1,109.8	7%	8,429.9
73	Argentina	59,957.8	1,341.7	7%	99,246.2
74	Uganda	5,183.7	117.1	6%	8,168.3
75	France	185,260.3	2,840.0	6%	316,436.8
76	Egypt	72,736.5	731.9	6%	113,087.6
77	Croatia	6,911.9	1,659.6	6%	12,027.4
78	Vietnam	41,159.1	426.6	6%	75,683.8
79	Benin	1,604.9	139.7	6%	2,792.4
80	Turkmenistan	6,511.1	1,112.7	6%	11,922.4
81	Bolivia	5,207.4	464.3	6%	8,695.2
82	Côte d'Ivoire	5,940.4	238.5	6%	9,014.2
83	Greece	18,241.9	1,637.2	6%	35,003.7
84	Australia	71,258.9	2,876.6	6%	122,157.0
85	Tunisia	8,142.6	698.4	6%	15,227.4
86	Uruguay	4,577.3	1,319.3	6%	7,229.8
87	Hungary	16,002.0	1,651.6	6%	28,041.0
88	Ecuador	11,178.9	662.9	6%	19,323.7
89	Dominican Republic	9,948.3	914.1	6%	14,365.1
90	Belarus	10,302.3	1,089.9	6%	17,089.3
91	Poland	63,488.3	1,666.1	6%	115,417.0
92	Bhutan	432.1	528.9	6%	731.8
93	Haiti	1,133.3	102.0	6%	1,747.2
94	Albania	2,100.9	716.0	6%	3,714.5
95	Chile	24,957.1	1,371.5	6%	42,856.6
96	Peru	23,966.3	736.3	6%	39,256.0
97	Moldova	1,120.0	277.2	6%	1,890.9
98	Gambia	196.4	90.7	6%	300.5
99	Romania	28,734.8	1,467.5	6%	53,347.1
100	South Korea	108,354.8	2,117.8	5%	180,698.2
101	Senegal	3,000.5	184.1	5%	4,927.4
102	Iran	92,567.2	1,128.7	5%	171,104.6
103	Kyrgyzstan	1,242.3	202.6	5%	2,190.1
104	Nepal	4,226.9	142.7	5%	7,737.4
105	Portugal	17,324.6	1,683.4	5%	31,748.9
106	Mongolia	2,108.1	675.3	5%	3,459.3
107	Burkina Faso	1,893.6	95.9	5%	3,559.3
108	India	496,355.4	366.6	5%	852,594.9
109	Morocco	15,450.7	426.9	5%	29,512.9
110	Rwanda	1,283.5	102.7	5%	1,851.7
111	Singapore	27,154.8	4,688.4	5%	50,767.6

TABLE D.1

Economic cost of violence (continued)

ECONOMIC COST OF VIOLENCE (Rank by % GDP)	COUNTRY	ECONOMIC COST OF VIOLENCE (MILLIONS, 2018 PPP)	PER CAPITA	ECONOMIC COST OF VIOLENCE AS PERCENTAGE OF GDP	ECONOMIC IMPACT OF VIOLENCE (MILLIONS, 2018 PPP)
112	Slovakia	8,820.9	1,618.6	5%	15,975.1
113	Kenya	8,327.7	163.4	5%	14,118.6
114	Panama	5,031.8	1,208.8	5%	7,720.5
115	Togo	646.9	81.0	5%	1,008.8
116	Sri Lanka	13,740.9	655.9	5%	22,145.9
117	Sierra Leone	575.4	74.5	5%	1,040.7
118	Italy	118,365.0	1,996.3	5%	222,949.6
119	Paraguay	4,400.7	638.1	5%	6,639.7
120	Guinea-Bissau	156.1	81.8	5%	251.3
121	Belgium	26,098.6	2,269.7	5%	43,595.6
122	Czech Republic	18,375.2	1,729.4	5%	32,652.9
123	Guinea	1,343.1	102.9	5%	2,092.3
124	Mozambique	1,740.1	57.0	5%	3,116.5
125	Tajikistan	1,332.9	146.4	5%	2,539.5
126	Germany	191,319.6	2,324.8	5%	327,633.8
127	Spain	80,276.3	1,730.2	5%	148,217.8
128	Nicaragua	1,644.8	261.7	5%	2,497.3
129	Zimbabwe	1,810.6	107.1	5%	2,876.0
130	Netherlands	40,153.3	2,350.3	4%	71,725.2
131	Slovenia	3,213.5	1,544.0	4%	5,607.7
132	Sweden	22,458.0	2,249.7	4%	36,610.7
133	China	1,031,979.6	729.3	4%	1,920,589.9
134	Finland	10,560.4	1,905.3	4%	17,952.1
135	Thailand	52,692.9	761.6	4%	88,331.6
136	Norway	13,724.9	2,563.8	4%	23,842.1
137	Cameroon	3,757.4	152.3	4%	5,101.4
138	Timor-Leste	391.7	295.9	4%	699.9
139	Kazakhstan	19,666.1	1,068.6	4%	29,763.2
140	Laos	1,967.9	282.7	4%	3,090.1
141	New Zealand	8,009.5	1,686.3	4%	13,932.8
142	Zambia	2,764.5	157.0	4%	4,616.8
143	Ethiopia	7,922.2	73.7	4%	10,205.3
144	Mauritius	1,054.4	831.4	4%	1,854.6
145	Cambodia	2,326.9	143.2	4%	4,188.3
146	Tanzania	5,895.0	99.8	4%	9,205.5
147	Switzerland	19,593.5	2,293.2	4%	33,428.8
148	Japan	194,491.9	1,529.2	4%	332,534.7
149	Bangladesh	22,297.4	134.0	3%	37,969.8
150	Austria	15,996.7	1,827.8	3%	27,169.9
151	Canada	59,356.5	1,606.2	3%	92,978.8
152	Qatar	11,618.9	4,311.5	3%	21,880.6
153	Denmark	10,131.9	1,760.7	3%	17,318.3
154	Taiwan	20,252.7	854.8	3%	40,505.5
155	Malaysia	29,911.6	933.5	3%	53,276.0
156	Madagascar	1,254.9	47.8	3%	1,858.6
157	Ireland	10,375.7	2,159.9	3%	17,055.1
158	Iceland	503.4	1,490.4	3%	800.8
159	Papua New Guinea	958.1	113.8	3%	1,303.8
160	Ghana	3,352.5	113.8	3%	5,835.1
161	Indonesia	74,591.6	279.6	2%	138,932.9
162	Equatorial Guinea	700.2	532.9	2%	1,022.5
163	Malawi	503.0	26.2	2%	874.3

ENDNOTES

SECTION 1

- 1 S. Chan, 'Sudan's President Orders Release of Political Prisoners', New York Times, April 2018. Available at: <https://www.nytimes.com/2018/04/10/world/africa/sudan-political-prisoners.html>.
- 2 Human Rights Watch, 'Rwanda: Post-Election Political Crackdown', Human Rights Watch, September 2017. Available at: <https://www.hrw.org/news/2017/09/28/rwanda-post-election-political-crackdown>.
- 3 A. Soy, 'Diane Rwigara: Rwanda government critic acquitted', BBC News, December 2018. Available at: <https://www.bbc.com/news/world-africa-46471808>.

SECTION 2

- 1 Uppsala Conflict Data Program, 'UCDP Non-State Conflict Codebook' (Version 18.1), 2017. Available at: <https://ucdp.uu.se/downloads/nsos/ucdp-nonstate-181.pdf>.
- 2 World Economic Forum, 'Global Risk Report 2019', World Economic Forum, January 2019. Available at: <https://www.weforum.org/reports/the-global-risks-report-2019>.
- 3 IPCC, 'Special Report: Global Warming of 1.5 C', IPCC, 6, October 2018. Available at: <https://www.ipcc.ch/sr15/chapter/summary-for-policy-makers/>.
- 4 P. DeMenocal, 'Cultural Responses to Climate Change during the Late Holocene', *Science*, 667-673, 2001. Available at: <https://science.sciencemag.org/content/292/5517/667.full>; B. Buckley, K. Anchukaitis, et al., 'Climate as a contributing factor in the demise of Angkor, Cambodia', *PNAS*, 2010. Available at: <https://www.pnas.org/content/107/15/6748>.
- 5 D. Zhang et al., 'The causality analysis of climate change and large-scale human crisis', *PNAS*, 2011. Available at: <https://www.pnas.org/content/108/42/17296>.
- 6 D. Zhang, et al., 'The causality analysis of climate change and large-scale human crisis', *PNAS*, 2011. Available at: <https://www.pnas.org/content/108/42/17296>.
- 7 D. Zhang, et al., 'Climate Change and War Frequency in Eastern China over the Last Millennium', *Human Ecology*, 2007. Available at: <https://link.springer.com/article/10.1007/s10745-007-9115-8>.
- 8 WMO, 'WMO Statement on the State of the Global Climate in 2018', WMO, 6-9, 2019. Available at: https://library.wmo.int/doc_num.php?explnum_id=5789.
- 9 WMO, 'WMO Statement on the State of the Global Climate in 2018', WMO, 6-9, 2019. Available at: https://library.wmo.int/doc_num.php?explnum_id=5789.
- 10 M. Safi and V. Doshi, 'Angry clashes in Karnataka as India's water wars run deep', *The Guardian*, September 2016. Available at: <https://www.theguardian.com/global-development/2016/sep/15/india-angry-clashes-karnataka-water-wars-run-deep-tamil-nadu>; Murithi Mutiga, 'As drought sweeps Kenya, herders invade farms and old wounds are reopened', *The Guardian*, March 2017. Available at: <https://www.theguardian.com/world/2017/mar/19/kenya-range-war-reopens-colonial-wounds>.
- 11 IPCC, 'Special Report: Global Warming of 1.5 C', IPCC, 213, October 2018. Available at: <https://www.ipcc.ch/sr15/chapter/chapter-3/>.
- 12 Based on population numbers from 2000.
- 13 IPCC, 'Special Report: Global Warming of 1.5 C', IPCC, 213, October 2018. Available at: <https://www.ipcc.ch/sr15/chapter/chapter-3/>.
- 14 B. Njeri Njiru, 'Climate Change, Resource Competition, and Conflict amongst Pastoral Communities in Kenya', *Hexagon Series on Human and Environmental Security and Peace*, 513-527, 2012. Available at: https://link.springer.com/chapter/10.1007/978-3-642-28626-1_24.
- 15 E. Messer, 'Climate Change and Violent Conflict: A critical literature review', *Oxfam America*, 47, 2010. Available at: <https://www.oxfamamerica.org/explore/research-publications/climate-change-and-violent-conflict/>.
- 16 B. Njeri Njiru, 'Climate Change, Resource Competition, and Conflict amongst Pastoral Communities in Kenya', *Hexagon Series on Human and Environmental Security and Peace*, 513-527, 2012. Available at: https://link.springer.com/chapter/10.1007/978-3-642-28626-1_24.

- 4 Reuters, 'More than 60 Dead in Burkina Faso Violence', New York Times, April 2019. Available at: <https://www.nytimes.com/2019/04/03/world/africa/burkina-faso-killed.html>.
- 5 UNHCR, 'Mid-Year Trends', 38, 2018. Available at: <https://www.unhcr.org/statistics/unhcrstats/5c52ea084/mid-year-trends-2018.html>.
- 6 Center for Preventive Action, 'The Top Conflicts to Watch in 2019: Iran', Council on Foreign Relations, January 2019. Available at: <https://www.cfr.org/blog/top-conflicts-watch-2019-iran>.
- https://link.springer.com/chapter/10.1007/978-3-642-28626-1_24.
- 17 E. Messer, 'Climate Change and Violent Conflict: A critical literature review', *Oxfam America*, 72, December 2010. Available at: <https://www.oxfamamerica.org/explore/research-publications/climate-change-and-violent-conflict/>.
- 18 E. Messer, 'Climate Change and Violent Conflict: A critical literature review', *Oxfam America*, 72, December 2010. Available at: <https://www.oxfamamerica.org/explore/research-publications/climate-change-and-violent-conflict/>.
- 19 J. Schaar, 'The relationship between climate change and violent conflict', *Sida*, 17, 2017. Available at: <https://www.sida.se/English/how-we-work/our-fields-of-work/environment-and-climate/>.
- 20 B. Jones, Eleanora Mattiacci and Bear Braumoeller, 'Food scarcity and state vulnerability: Unpacking the link between climate variability and violent unrest', *Journal of Peace Research*, 335-350, 2017. Available at: <https://journals.sagepub.com/doi/10.1177/0022343316684662>.
- 21 E. Messer, M. Cohen, J. D'Costa, 'Food from Peace: breaking the links between conflict and hunger', 2020 vision discussion papers 24, IFPRI, 1998. Available at: <https://ideas.repec.org/p/fpr/2020dp/24.html>.
- 22 K. Kumari Rigaud, et al., 'Groundswell : Preparing for Internal Climate Migration' World Bank, 110, 2018. Available at: <https://openknowledge.worldbank.org/handle/10986/29461>.
- 23 K. Kumari Rigaud, et al., 'Groundswell : Preparing for Internal Climate Migration' World Bank, 110, 2018. Available at: <https://openknowledge.worldbank.org/handle/10986/29461>.
- 24 R. Reuveny, 'Climate change-induced migration and violent conflict', *Political Geography*, 656-673, 2007. Available at: <https://www.sciencedirect.com/journal/political-geography/vol/26/issue/6>.
- 25 EJF, 'BEYOND BORDERS: Our changing climate - its role in conflict and displacement', EJF, 35, 2017. Available at: <https://reliefweb.int/report/world/beyond-borders-our-changing-climate-its-role-conflict-and-displacement>.
- 26 Ü. Oswald Spring, 'Environmentally-Forced Migration in Rural Areas: Security Risks and Threats in Mexico', *Hexagon Series on Human and Environmental Security and Peace*, 315-350, 2012. Available at: https://link.springer.com/chapter/10.1007/978-3-642-28626-1_17.
- 27 F. Biermann and I. Boas, 'Climate Change and Human Migration: Towards a Global Governance System to Protect Climate Refugees', *Hexagon Series on Human and Environmental Security and Peace*, 291-300, 2012. Available at: https://link.springer.com/chapter/10.1007/978-3-642-28626-1_15.
- 28 C. Jakobeit and C. Methmann, 'Climate Refugees' as Dawning Catastrophe? A Critique of the Dominant Quest for Numbers', *Hexagon Series on Human and Environmental Security and Peace*, 301-314, 2012. Available at: https://link.springer.com/chapter/10.1007/978-3-642-28626-1_16.
- 29 S. Saha, 'Security Implications of Climate Refugees in Urban Slums: A Case Study from Dhaka, Bangladesh', *Hexagon Series on Human and Environmental Security and Peace*, 595-611, 2012. Available at: https://link.springer.com/chapter/10.1007/978-3-642-28626-1_29.
- 30 S. Saha, 'Security Implications of Climate Refugees in Urban Slums: A Case Study from Dhaka, Bangladesh', *Hexagon Series on Human and Environmental Security and Peace*, 595-611, 2012. Available at: https://link.springer.com/chapter/10.1007/978-3-642-28626-1_29.

ENDNOTES

SECTION 3

- 1 IEP's measure of military expenditure also includes the cost of veteran affairs and interest payments on the military-related debt in the United States, which was US \$232 billion in 2018.

SECTION 4

1. International Alert, 'Peace through Prosperity: Integrating peacebuilding into economic development', June 2015. Available at: <https://www.international-alert.org/publications/peace-through-prosperity>; and R. Rummel, 'Vol. 5: The Just Peace', Understanding Conflict and War, 1981. Available at: <http://www.hawaii.edu/powerkills/NOTE14.HTM#FULL>.
2. C. Barnes, 'Agents for Change: Civil Society Roles in Preventing War & Building Peace', Global Partnership for the Prevention of Armed Conflict, Issue Paper 2, September 2006. Available at: <https://gppac.net/publications/agents-change-civil-society-roles-preventing-war-building-peace>.
3. PPP, constant 2005 prices international US dollars.
4. Institute for Economics & Peace, 'Business and Peace', September 2018. Available at: <http://visionofhumanity.org/reports/>.
5. Institute for Economics and Peace, 'Positive Peace Report 2018: Analysing the factors that sustain peace', October 2018. Available at: <http://visionofhumanity.org/reports/>.
6. E. Phouthonesy, 'Lao Industrial Sector Sees 11 Percent Growth', Vientiane Times, May 2018. Available at: <http://annx.asianews.network/content/lao-industrial-sector-sees-11-percent-growth-73705>.
7. E. Krug, L. Dahlberg, J. Mercy, A. Zwi and R. Lozano, 'World report on violence and health', WHO, 2002. Available at: https://www.who.int/violence_injury_prevention/violence/world_report/en/.
7. The Economist Intelligence Unit, 'Panama – Economic Growth', June 2012. Available at: <http://country.eiu.com/article.aspx?articleid=209136005&Country=Panama&topic=Economy&subtopic=Forecast&subsubtopic=Economic+growth&aid=1&oid=848603669>.
8. A. Geybullayeva, 'Azerbaijan construction boom: good or bad?', Observatorio Balcani e Caucaso – Transeuropa, May 2010. Available at: <https://www.balcanicaucaso.org/eng/Areas/Azerbaijan/Azerbaijan-construction-boom-good-or-bad-76446>.
9. T. Lhaden, 'An Update on Bhutan's Economy', The World Bank, March 2018. Available at: <http://blogs.worldbank.org/endpovertyinsouthasia/update-bhutan-s-economy>.
10. Economies Africaines, 'Ethiopia – the Service Sector', March 2017. Available at: <http://www.economiesafricaines.com/en/countries/ethiopia/economic-sectors/the-service-sector>; World Bank, 'Ethiopia Economic Update: Reform Imperatives for Ethiopia's Services Sector', June 2018. Available at: <https://www.worldbank.org/en/country/ethiopia/publication/ethiopia-economic-update-reform-imperatives-for-ethiopias-services-sector>.

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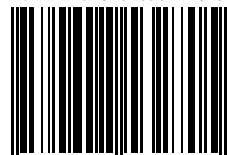
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JUNE 2019 / IEP REPORT 67

ISBN 978-0-6485327-0-5



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