The Risk Monitor: January 2021

Africa-wide forecasts from the political Violence Early Warning System

Forecasts as of 1 November 2020, based on data up until and including September 2020*

By: The ViEWS Team

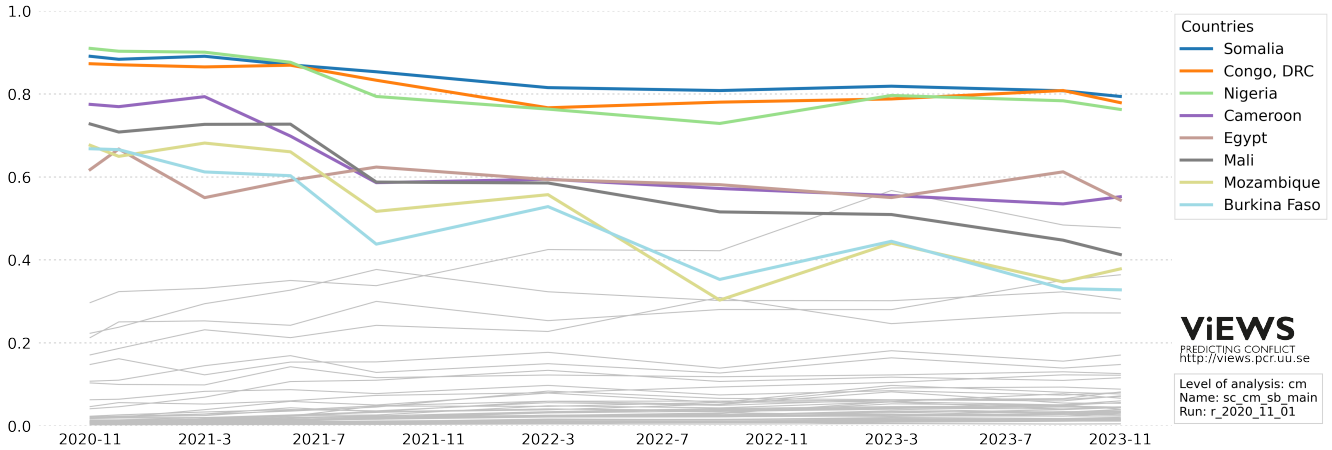


Figure 1. Country-level forecasts for the risk of at least 25 fatalities from intentional, politically motivated and organised state-based violence in November 2020–October 2023. Graphs are colored for countries facing a short-term risk of 50% (0.5) or higher. The corresponding plots for non-state and one-sided violence are shown in Figure 4.

EXECUTIVE SUMMARY

As of November 2020, the Violence Early Warning System (ViEWS)[1] continues to generate high-risk alerts for countries with a recent history of fatal political violence.

Conflict involving a government of a state remains highly likely in DRC, Nigeria, Somalia, Cameroon, Mali, Mozambique, Burkina Faso and Egypt, where the forecasting system expects at least 25 deaths in more than half of the coming six months (see Figure 1). In DRC, Nigeria and Somalia, in particular, we expect the monthly fatality count from state-based violence alone to equate to or exceed this threshold during nine to ten months per year throughout the forecasting window.

The risks of state-based violence across the continent have nevertheless remained predominantly stable or decreased since last month (most notably in Libya, Sudan and Niger), while we in a number of countries now detect elevated risks for conflicts that are set between two or more armed actors (neither of which is a government of a state), as well as for violence against unarmed civilians (Figure 3). Most pronounced are the risks in DRC and Nigeria, both of which top the short-term watchlists in Table I this month.

In combining the risk projections for all three types of violence, we find that the greatest overall risks in January 2021 are located in the same two countries—25 or more fatalities from either type of violence is nearly guaranteed in both Nigeria and DRC (Figure 2a). Somalia, Mali, Burkina Faso, Cameroon and Mozambique follow not far be-

*The full suite of data sources and descriptions of the ViEWS methodology can be found at `http://views.pcr.uu.se`, further detailed in Hegre et al. (2019) and Hegre et al. (2020). The full list of models are carefully detailed in the corresponding online appendices to the 2020 update article on ViEWS in *Journal of Peace Research*, available at `http://files.webb.uu.se/uploader/1576/AppendixB.pdf` and `http://files.webb.uu.se/uploader/1576/AppendixC.pdf`. Brief definitions, notations and other useful information can in turn be found on page 9 of this report.

[1]To learn more about the data sources and modeling system that inform the ViEWS forecasts, please see the forthcoming *Spotlight Series*, visit our dedicated website (`http://views.pcr.uu.se`), or browse our list of publications (`https://pcr.uu.se/research/views/publications/`). Further questions are kindly directed to `views@pcr.uu.se`.

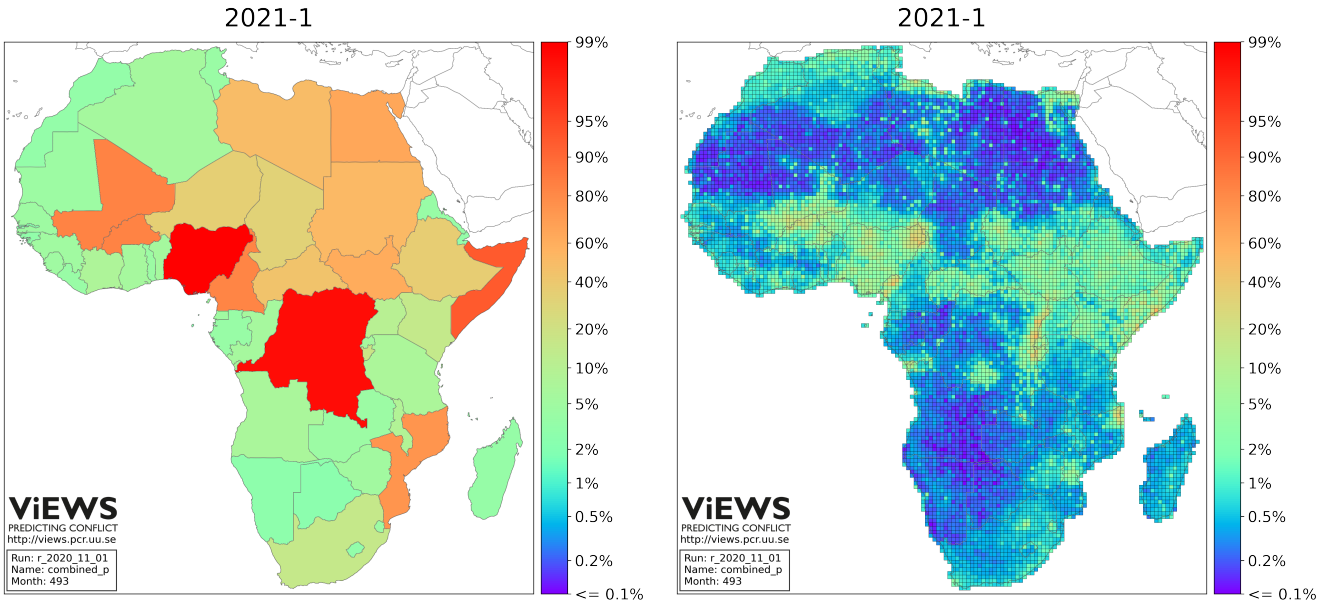
Table I. Short-term watchlists

Top 5 high-risk locations over the next quarter[a]	
Nationally	*Locally*
Nigeria	Borno state (Nigeria)
DRC	The Ituri and Kivu provinces (DRC)
Somalia	Anglophone Cameroon
Mali	Cabo Delgado (Mozambique)
Burkina Faso	Central Mali/NE Burkina Faso

Greatest risk elevations since last month[b]	
Nationally	*Locally*
DRC (ns, os)	Borno state (NG: sb, os)
Nigeria (os, ns)	Ituri & the Kivus (CD: os, ns, sb)
Mali (os, ns)	Cabo Delgado (MZ: os, sb)
Mozambique (os)	Anglophone Cameroon (sb, os)
CAR (sb)	Kismayo (SO: sb)

[a]Countries or regions in which the risk of one or several types of violence (1 or 25 fatalities, respectively) is equal to or higher than 50% over the next quarter.

[b]Countries in which the risk of at least 25 fatalities from one or several types of violence has increased by 2 percentage points or more since last month, and regions in which either a single location observes a significant risk elevation of at least one fatality since last month, or a number of adjacent localities has experienced an elevation. The types of violence in question are listed in parenthesis.



(a) Country level *(b)* Local level

Figure 2. Combined forecasts for any of the three UCDP types of political violence occurring in January 2021. Predicted probability of at least 25 fatalities per country (left) and at least one fatality per sub-national locality (right). Risks are close to 100% in red cells, equal to a coin toss in orange cells, and low to non-existent in purple cells (less than 0.1%).

hind with a combined probability of approximately 80% in January 2021.

At the local level, the overall high-risk clusters span Borno state in Nigeria, the Anglophone region of Cameroon, the Ituri and Kivu provinces of DRC, the Cabo Delgado province of Mozambique, and the broader area of central Mali and northern/north-eastern Burkina Faso, where the risks of at least one fatality per location in January 2021—from either type of political violence—reach or exceed approximately 60% (Figure 2b).

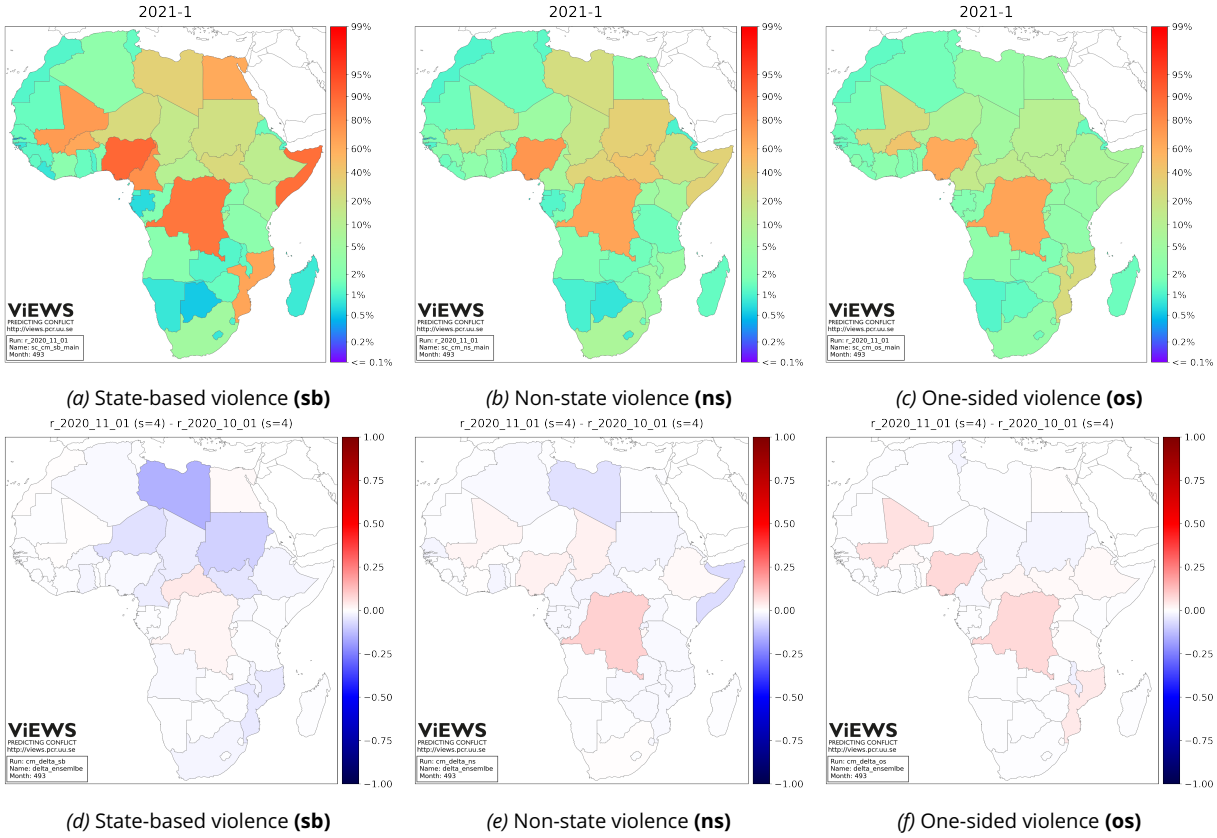
Looking further ahead into the 36-month forecasting window, three countries merit particular observation as non-state violence is concerned—in Nigeria, South Sudan and DRC the predicted probability of 25 or more fatalities during any given month over the next three years range between 40–80% (Figure 4).

[2]See page 9 for the full definitions.

With the addition of Burkina Faso, both DRC and Nigeria also make the long-term watchlist for one-sided violence (see Figure 4) with emphasis on the next two quarters, after which the risks in DRC and Nigeria drop to a steady 50% through the remainder of the forecasting window. Projections in Burkina Faso continue to decline to about 20% by October 2023.

COUNTRY-LEVEL FORECASTS

Figures 3a–3c display the Violence Early Warning System (ViEWS) forecasts for January 2021. The plots take the form of a risk assessment of the likelihood (0-100%) that at least 25 lives are lost to organised violence that is fuelled by political motivations in each country. They capture the individual risks from each of three different types



(a) State-based violence **(sb)** *(b)* Non-state violence **(ns)** *(c)* One-sided violence **(os)**

(d) State-based violence **(sb)** *(e)* Non-state violence **(ns)** *(f)* One-sided violence **(os)**

Figure 3. Country-level forecasts for the risk of at least 25 fatalities from intentional, politically motivated and organised political violence in January 2021 (top row[a]), and changes to the risk assessments since last month (bottom row[b]).

[a] Red color indicates a risk close to 100%, orange color a risk equal to a coin toss, and purple color a low to non-existent risk (less than 0.1%)

[b] Where recent input data indicate that the risk of at least 25 fatalities from any of the three respective forms of violence has increased as compared to last month, countries have been colored red. Where risks appear to be decreasing, countries have been colored blue. The severity of each risk alteration is illustrated by the color saturation; white cells indicating no change.

of political violence—as defined and recorded by the Uppsala Conflict Data Program (UCDP)—namely state-based, non-state, and one-sided violence.[2] Where risks are high and up towards 100% certain, the applicable countries are filled with a bright red color. Orange colors represent risks equal to a coin toss, whereas the lowest risks are illustrated by blue ($< 1\%$) or purple ($< 0.1\%$) shades.

Figures 3d–3f, in turn, illustrate how these forecasts have changed since last month. Since there have not been any recent modifications to the modeling system, the changes visible from these maps are rather indicative of new input data. The maps in the figure illustrate where such data have led the forecasting system to revise its risk assessment. Where the system now expects that the risks of at least 25 fatalities in a given country and month have increased since last month, a red fill color can be observed. Where risks have decreased, countries have been colored blue. The severity of the risk alteration is illustrated by the color saturation; white cells indicating no change.

The forecasting system consists of a suite of forecasting models, each of which has been trained to capture the effects of a particular theme of conflict-inducing factors. At the national level, the system gives particular weight to structural, slow-moving features and patterns that often characterize countries over a longer period of time, such as the stability of political institutions, democracy indices, and socio-economic factors. It also relies heavily on a number of conflict and protest history models that capture not only the long-term trends in each country and region, but also the most recent developments in each country. Changes to the ViEWS projections are most often informed by the latter, more specifically by monthly conflict and protest data from the UCDP (`http://ucdp.uu.se`) and ACLED (`http://acleddata.com`). They are consequently the focus of the discussions that follow.

State-based conflict (sb)

The ViEWS projections for January 2021 continue to generate alerts for countries with a recent history of fatal political violence and/or mass protests. We continue to fore-

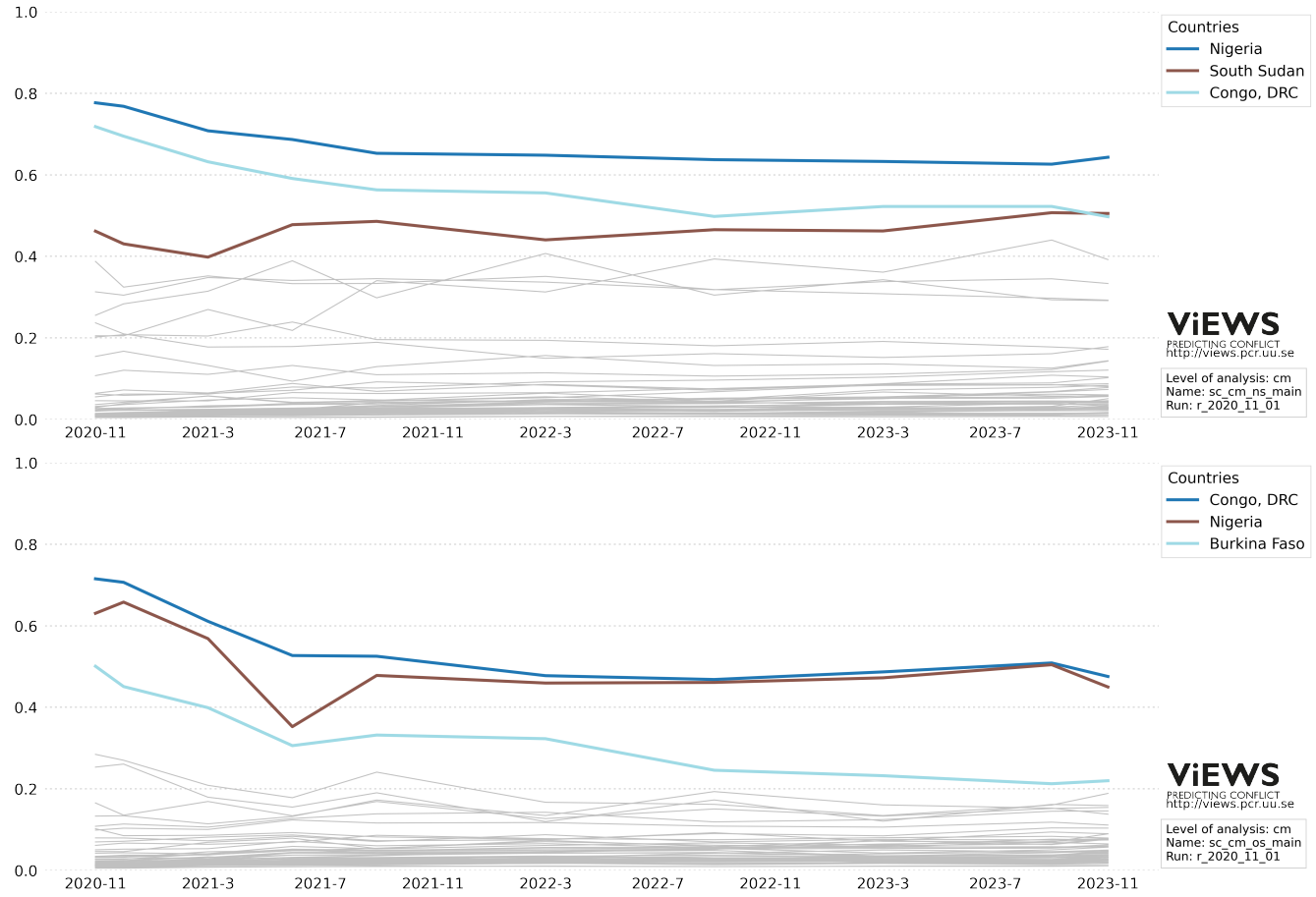


Figure 4. Country-level forecasts for the risk of at least 25 fatalities from intentional, politically motivated and organised non-state (top) or one-sided (bottom) violence in January 2021. Graphs are colored for countries that face a short-term risk of 50% (0.5) or higher. The corresponding plot for state-based violence is shown in figure 1.

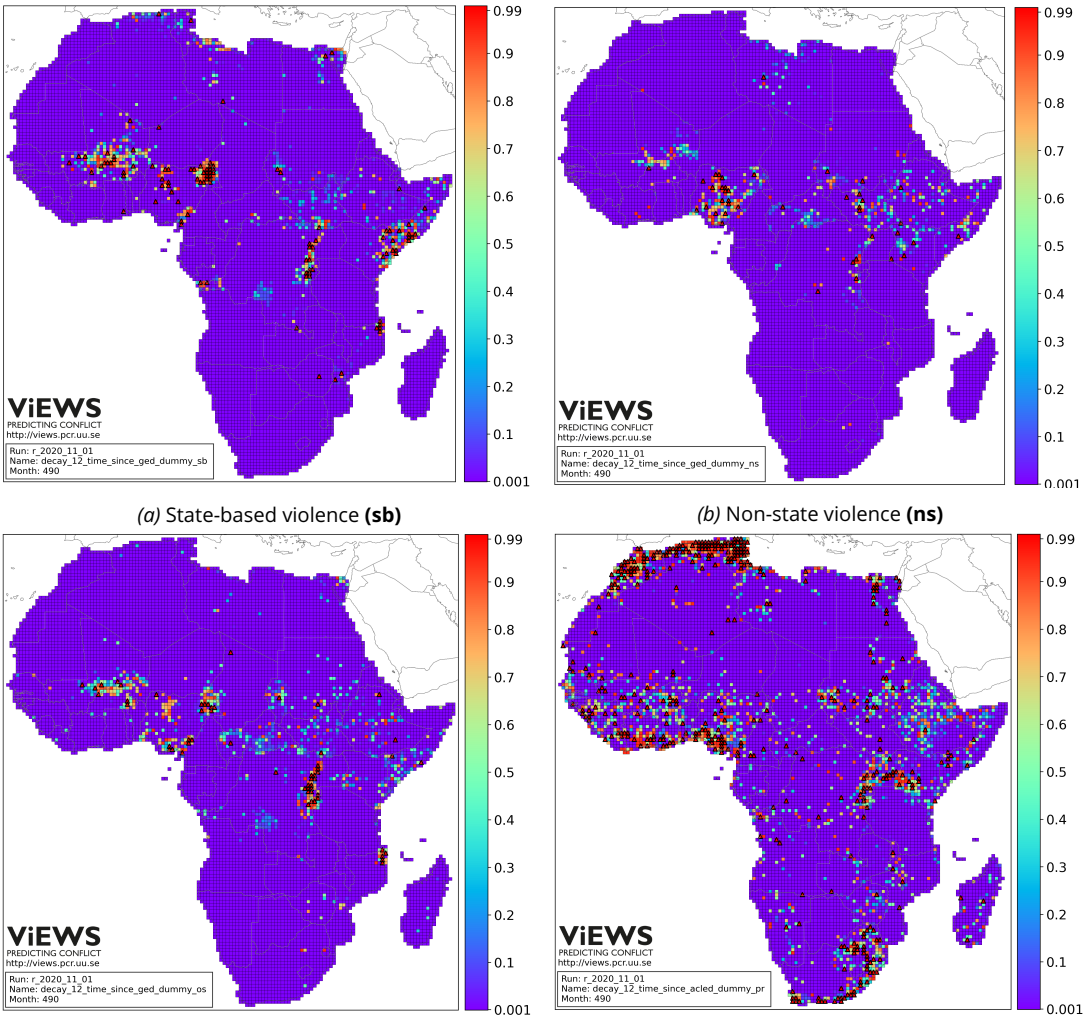
cast a high probability of state-based conflict—involving at least one government of a state—in Mali, Burkina Faso, Democratic Republic of Congo, Cameroon, Egypt, Nigeria, Somalia and Mozambique. In all eight countries, the probability of 25 or more fatalities in January 2021 alone exceeds 60%. In DRC, Somalia and Nigeria, it exceeds 85%.

We detect a minor increase in risk in CAR and DRC as compared to last month. However, more notable is a seeming reduced danger in Southern Africa (Mozambique, South Africa, Uganda) and—in particular—in the North (Libya, Sudan, and Niger). These changes are illustrated by Figure 3d.

Non-state conflict (ns)

Two countries stand out in the forecasts for non-state violence: Nigeria and DRC, in which the predicted probability of at least 25 fatalities occurring within the month of January 2021 alone is as high as 75% and 67%, respectively, illustrating well the communal conflict dynamics in these two countries. DRC is also subject to the greatest risk elevation since last month (see Figure 3e). The heightened risk comes as a result of the 56 fatalities that were recorded by the UCDP in September 2020 from violent clashes between two factions of the NDC-R in Nord Kivu, in addition to attacks by two Mai-Mai groups on Makanika, Ngumino and Twiganeho fighters in South Kivu, clashes between three groups in Katanda territory (who have since signed a memorandum of understanding), and a clash between Congolese Tutsis and three other communities in eastern South Kivu. The location of these events, and many others, are visible from the conflict history map in Figure 5b. Localities that experienced at least one fatality from non-state violence in September 2020 have here been colored red and marked with a black triangle. Color variations indicate the time since the last event; red signalling that fatal violence took place in September or August 2020, and purple showing that the area has been free from such events for many years.

Moderate risk elevations are also found in Mali, Chad, Nigeria and Ethiopia, in contrast to the moderate decreases in Libya and Somalia (see Figure 3e).



(a) State-based violence **(sb)**

(b) Non-state violence **(ns)**

(c) One-sided violence **(os)**

(d) Protests **(pr)**

Figure 5. Illustrations of the recent history of fatal political violence as well as protests (violent and non-violent), as recorded by the UCDP and ACLED, respectively. Red cells observed qualifying incidents in September 2020 (distinguished by a black marker) or August 2020. Purple cells have not experienced such incidents for many years.

One-sided violence (os)

With the exception of a handful of countries, the risks of 25 or more fatalities from one-sided violence in January 2021 remains very low—less than 10%—on the strong majority of the continent. Only two countries continue to face a risk above 50%, namely Nigeria (63%) and DRC (67%). Seen from Figure 3e, this is also where the most significant elevations of the risk projections have occurred since last month. While we do see a risk increase also in Mali, the probability of at least 25 fatalities nevertheless remains below 30% in the country.

Last, moderate risk decreases can be observed in both Tunisia and Malawi, albeit the overall risks were already lower than 10% in both countries.

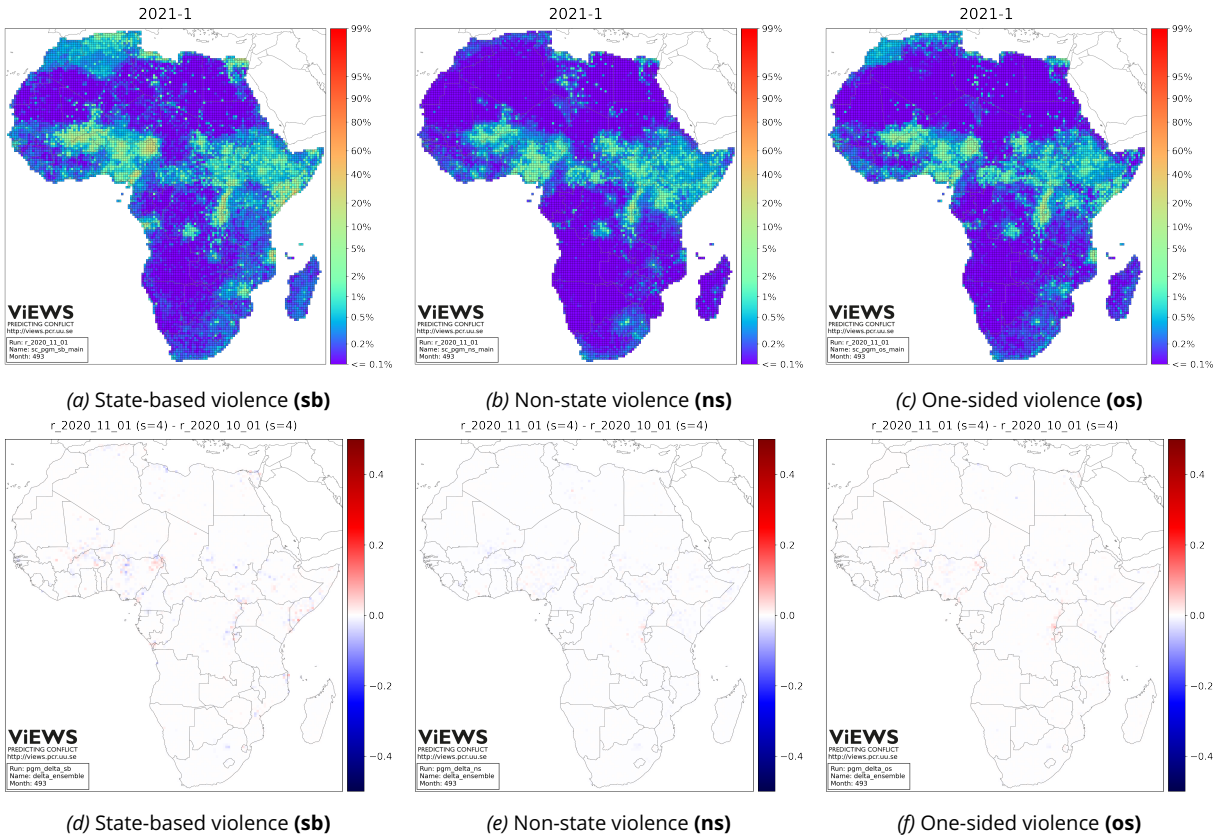
LOCAL FORECASTS

In Figure 6, we shift our focus to the local level once more, assessing in the top row the likelihood of at least one fatality in January 2021 in square areas measuring approximately 55x55km.[3]

The bottom row, in turn, displays the changes to the forecasts since last month, in the same manner as in Figure 3. Here, the changes however refer to revised risks of at least one fatality in each given locality, in line with the lowered threshold for risk alerts.

Figure 5, at last, displays the recent conflict and protest history across the continent, delimiting each locality by means of the grid structure above. The maps in the figure are informed by UCDP and ACLED data up until and including September 2020. Figures 5a–5c show the

[3]The systematic grid structure formed is known as the PRIO-GRID. It is the most spatially granulated level that the ViEWS system currently produces forecasts for. See page 9 for the full definition.



(a) State-based violence **(sb)** *(b)* Non-state violence **(ns)** *(c)* One-sided violence **(os)**

(d) State-based violence **(sb)** *(e)* Non-state violence **(ns)** *(f)* One-sided violence **(os)**

Figure 6. Sub-national forecasts for the risk of at least one fatality from intentional, politically motivated and organised political violence in January 2021 (top row[a]), and changes to the risk assessments since last month (bottom row[b]).

[a]The risk is close to 100% in red cells, equal to a coin toss in orange cells, and low to non-existent in purple cells (less than 0.1%)

[b]Where recent input data indicate that the risk of at least one fatality from any of the three respective forms of violence is increasing as compared to last month, cells have been colored red. Where risks appear to be decreasing, cells are blue. The severity of the risk alterations is illustrated by the color saturation; white cells indicating no change.

time since the last fatal conflict event, whereas Figure 5d show the time since the last protest event (violent or non-violent). Red cells observed such incidents in September 2020 (distinguished by a black marker) or August 2020. Purple cells have not experienced such incidents for many years.

While the national level forecasts do inform the the local forecasts—and vice versa—the forecasting models employed at the two levels of analysis differ from each other. While models informing the national level forecasts, for instance, bring valuable structural and historical factors to the table, models tailored to the sub-national level excel in accentuating effects from local compound risks. This includes—but is not limited to—heightened risks related to local demography, terrain, proximity to natural resources, local precipitation levels, droughts, and conflict history in neighbouring areas. The two sets of forecasts should therefore be seen as separate assessments, which nevertheless are best interpreted in conjunction with each other.

State-based conflict (sb)

At the local level, the high-risk clusters are once again found in north-eastern Nigeria, the Anglophone region of Cameroon, the Ituri and Kivu provinces of DRC, southern Somalia, Sinai in Egypt, around Tripoli in Libya, the Cabo Delgado province of Mozambique, and in the extended border areas between central Mali, northern/north-eastern Burkina Faso, and south-western Niger. In each of these regions, the risk of at least one fatality from state-based violence in January 2021 reaches or exceeds 50% in several localities. These local variations are illustrated in Figure 6a. As seen from this map, broader clusters at lower risk also span the Horn of Africa, the protest prone regions of Morocco, Algeria, and Tunisia, as well as a large part of West Africa.

The most pronounced changes to the risk assessment since last month mostly align with the high-risk clusters (Figure 6d). The largest cluster of local risk elevations are found in north-eastern Nigeria, where the government continues to battle the Islamic State and Boko Haram. Because the number of fatalities from state-based violence

in Katsina and Zamfara states decreased from around 100 fatalities per state in July 2020 to less than 10 in both August and September, we however predominantly observe risk declines in these two states this month, seen from the blue cluster in Figure 6d.

In central Mali, northern and north-eastern Burkina Faso and south-western Niger, we continue to observe a de-escalation of violence (Figure 6d). While some conflict events have occurred since last month, few of them have caused enough fatalities to indicate any significant re-escalations. Consequently, we mostly observe light blue colors across this region in Figure 6d. Only two localities stand out: Bamako in Mali—where a coup d'état took place in August 2020—and two locations in the Gourma province of Burkina Faso, where jihadist groups killed a total of nine men from the newly formed militia VDP (Volunteers for the Defence of the Nation) in September 2020. The latter is comprised by civilian volunteers who have received a short training and thereafter been equipped with light arms by the Burkinabe army in order to assist in the battle against jihadist groups in country.

The single locality observing the greatest risk elevation since last month covers Kismayo and its immediate surroundings is Somalia. On 9 September, a military offensive against Al-Shabaab took place in outskirts of the city, killing 13. Two days later, a suicide bomb detonated shortly after the Friday prayers in Kismayo town, killing the chairman of Jubbaland Chamber of Commerce and three others.

Non-state conflict (ns)

In the non-state violence category, the risk projections for January 2021 are quite optimistic. The broad risk cluster forming a belt over the Horn of Africa, CAR, Chad, Nigeria, Niger, Mali, Burkina Faso, and the Kivu provinces of DRC, remains intact. The predicted probability of one or more fatalities from non-state violence in January 2021 does however not exceed 30% in any single grid cell location in that region. In most locations, the risk does not even exceed 20%, as seen from the color coding of Figure 6b.

The stability of the risk assessment is confirmed by Figure 6e. With the exception of one locality in South Kivu, the changes that can be observed since last month are all moderate to none, as seen by the high opacity of the colored cells. Moreover, these changes predominantly point to declines in the probability of fatal violence between armed non-state actors (blue shades).

By comparing the conflict history map in Figure 5b with the change map in Figure 6e, we see that the locality in South Kivu in which the risk of fatal non-state violence has increased since last month suffered such violence as late as September 2020 (the last month with available conflict data). The events in question were the fatal attacks by two Mai-Mai groups (killing 14) and the clash between four communities in the region (killing 5), both of which were briefly mentioned in relation to the national forecasts for non-state violence.

The small cluster of red cells in North Kivu (Figure 6e), in turn, points to the previously mentioned clashes between two factions of NDC-R, which took the lives 24 people in early September.

Last, also the single red grid cell in Libya in Figure (Figure 6e) is informed by a fatal event in September 2020, where Forces of the House of Representatives on September 15th conducted a raid on an IS hideout, killing 11 IS militants but also resulting in three casualties from the LNA.

One-sided violence (os)

Also for one-sided violence, the forecasts remain largely the same as last month. The Ituri and Kivu provinces of DRC, Borno state in Nigeria, the Anglophone region of Cameroon, and the Cabo Delgado province of Mozambique prevail as the areas at highest risk of armed violence against unarmed civilians also in January 2021. Likewise, this is where the majority of conflict events categorised as one-sided violence occurred in September 2020 (see Figure 5c), and where the changes to the risk projections from last month are the most pronounced (Figure 6f).

In DRC, no less than 35 fatal conflict events were recorded by the UCDP in September 2020. The highest fatality counts came from Ituri, following continued ADF attacks that took the lives of nearly 60 people and several attacks on civilians by the Congo Development Cooperative (CODECO) militia, killing 10. Also in North Kivu are the highest fatality counts attributed to ADF attacks (50 dead), while several fatalities also occurred at the hands of government soldiers and police, as well as by factions of the NDC-R. South Kivu suffered only four reported fatalities from one-sided violence in January 2021: two at the hands of the Mai-Mai Rushaba, one by the Twiganeho and one by the Ngumino.

In Cameroon, the heightened risks in the Anglophone region follow a series of military rampages against alleged separatists in the region, which killed 8 civilians in the

month of September 2020.

Last, local risk increases in both Mozambique's Cabo Delgado and Nigeria's Borno state follow a continuation of IS activity.

REFERENCES

Hegre, Håvard, Marie Allansson, Matthias Basedau, Mike Colaresi, Mihai Croicu, Hanne Fjelde, Frederick Hoyles, Lisa Hultman, Stina Högbladh, Remco Jansen, Naima Mouhleb, Sayeed Auwn Muhammad, Desirée Nilsson, Håvard Mokleiv Nygård, Gudlaug Olafsdottir, Kristina Petrova, David Randahl, Espen Geelmuyden Rød, Gerald Schneider, Nina von Uexkull, and Jonas Vestby (2019). "ViEWS: A political Violence Early Warning System". In: *Journal of Peace Research* 56.2, pp. 155–174. url: https://doi.org/10.1177/0022343319823860.

Hegre, Håvard, Curtis Bell, Michael Colaresi, Mihai Croicu, Frederick Hoyles, Remco Jansen, Angelica Lindqvist-McGowan, David Randahl, Espen Geelmuyden Rød, Maxine Ria Leis, and Paola Vesco (2020). "ViEWS$_{2020}$: Revising and evaluating the ViEWS political Violence Early-Warning System". In: *Journal of Peace Research* In press.

Tollefsen, Andreas Forø (2012). *PRIO-GRID Codebook*. Typescript, PRIO. url: http://file.prio.no/ReplicationData/PRIO-GRID/PRIO-GRID_codebook_v1_01.pdf.

Weidmann, Nils B, Doreen Kuse, and Kristian Skrede Gleditsch (2010). "The geography of the international system: The CShapes dataset". In: *International Interactions* 36.1, pp. 86–106.

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COLLABORATIONS

ViEWS has an active interaction with other projects, including CLIMSEC, CAVE and CROP at PRIO (https://prio.org/), the MISTRA Geopolitics project, and most importantly the Uppsala Conflict Data Program (https://ucdp.uu.se/) at Uppsala University.

CODEBASE & PUBLICATIONS

ViEWS' codebase is available at:

https://github.com/UppsalaConflictDataProgram/OpenViEWS2

The full list of publications are accessible at:

https://pcr.uu.se/research/views/publications/

DEFINITIONS

Forms of violence

The ViEWS forecasts take the form of monthly probabilistic assessments of the risk and likely severity of three forms of organized political violence occurring in a given month, as defined by the Uppsala Conflict Data Program (UCDP):

- **State-based (sb) violence**: the use of armed violence over either government or territory between armed actors, in which at least one is a government of a state;
- **Non-state (ns) violence**: the use of armed force between two organized armed groups, neither of which is a government of a state, and;
- **One-sided (os) violence**: the deliberate use of armed force by the government of a state, or by a formally organized group, against civilians.

Levels of analysis

The results are presented at three levels of analysis using the calendar month as the temporal unit of analysis:

- The country-month (*cm*) level, which follows the country outline determined by CShapes (Weidmann, Kuse, and Gleditsch, 2010), and;
- The PRIO-GRID-month (*pgm*) level, which is outlined by fine-grained geographical locations known as PRIO-GRID-cells, a global quadratic grid structure with cells measuring 0.5 x 0.5 degrees in longitude and latitude, spanning approximately 55 km^2 along the equator (Tollefsen, 2012, `https://grid.prio.org/#/`).

Model descriptions

Our full suite of forecasting models are described in detail in Appendix B and C to our forthcoming article in *Journal of Peace Research*, available at `https://pcr.uu.se/research/views/publications/`.

Steps s ahead

In some figures, you may see a reference to a particular step s. This refers to the internal ViEWS notation for what number of months ahead (1-36) a given forecast is produced. In any given run of the forecasting system, $s = 1$ refers to the first calendar month following the last month of available data. In this report, the last month of available data was September 2020). Forecasts for $s = 1$ would thus effectively have referred to forecasts for last month, $s = 2$ to the 'nowcast' for the month of writing, and $s = 3$ to the forecasts for the following calendar month. The *Risk Monitor* presents the ViEWS forecasts for $s = 4$.