

# The Risk Monitor: May 2021

## Africa-wide forecasts from the Violence Early Warning System (ViEWS)

*Forecasts as of 1 March 2021, based on data up until and including January 2021\**

By: The ViEWS Team

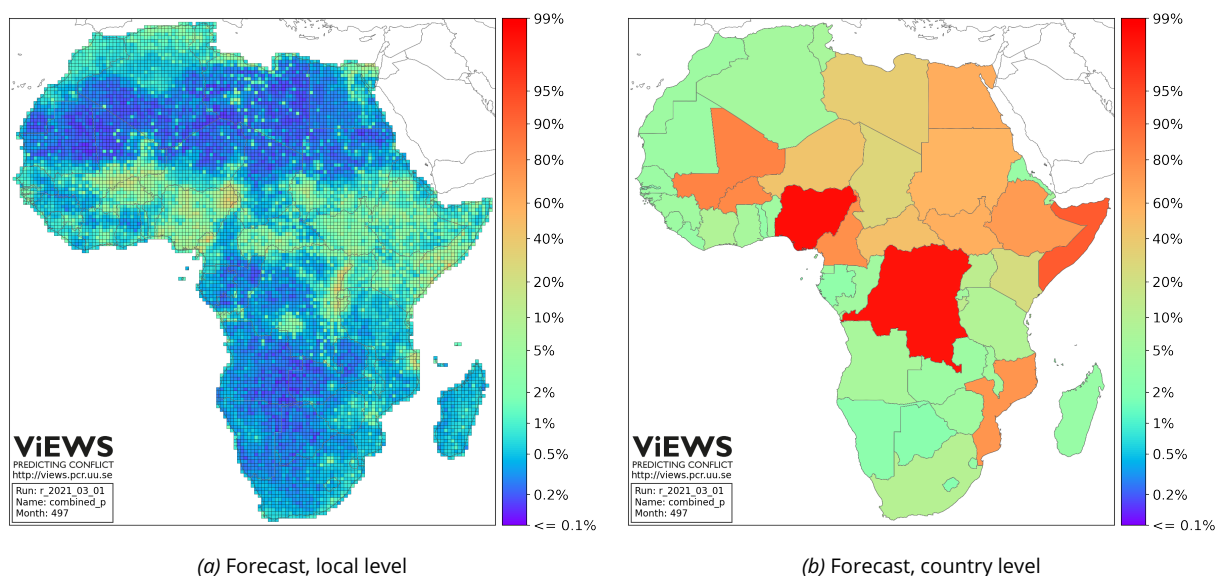


Figure 1. Combined forecasts for fatal political violence in May 2021. Predicted risk (0-100%) that at least one fatality occurs per sub-national location (left), or at least 25 fatalities per country (right)—from either state-based, non-state, or one-sided violence.

### EXECUTIVE SUMMARY

ViEWS continues to generate high-risk alerts for countries with a recent history of fatal political violence. In May 2021, 25 or more fatalities from at least one type of violence that ViEWS predicts (see page 9) is almost certain in DRC and Nigeria, and highly likely in Somalia, Mali, Cameroon, Burkina Faso, Ethiopia, and Mozambique ( $> 70\%$  risk, see Figure 1b). More specifically, we find Borno and Katsina states in Nigeria, Anglophone Cameroon, the Ituri and Kivu provinces of DRC, the extended border areas between Mali, Burkina Faso and Niger, as well as the Cabo

Delgado province of Mozambique to be particular 'hot-spots' for political violence, while more diffuse risks form a belt across the Sahel region, its southern neighbours, and the Horn of Africa (Figure 1a).

Changes to the country-level forecasts as compared to last month are most pronounced in Ethiopia and Niger.<sup>1</sup> High-intensity violence continued in Ethiopia's Tigray region over the course of December and January, while a simultaneous two-village massacre of more than 100 people took place in Niger's Tillabéri region in January, leading the forecasting system to heighten its risk projections for both countries (Figure 2b). A notable risk reduction is

\*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. (2021). 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.

Table I. Short-term watchlists<sup>a</sup>

Top 5 high-risk locations in May 2021		Most notable risk elevations since last month	
Nationally	Locally	Nationally	Locally
Nigeria	Borno state (NGA)	Ethiopia	Ombella-M'Poko & Bangui pr. (CAR)*
DRC	The Ituri and Kivu provinces (COD)	Niger*	Lagos (NGA)*
Somalia	Anglophone Cameroon	CAR*	Tombouctou & Mopti region (MLI)
Mali	Cabo Delgado (MOZ)	Tanzania*	Sahel region (BFA)
Burkina Faso	Central Mali/NE Burkina Faso	Mozambique*	Cabo Delgado (MOZ)

<sup>a</sup>Based on Figure 1–2. New entries this month are marked by an asterisk (\*).

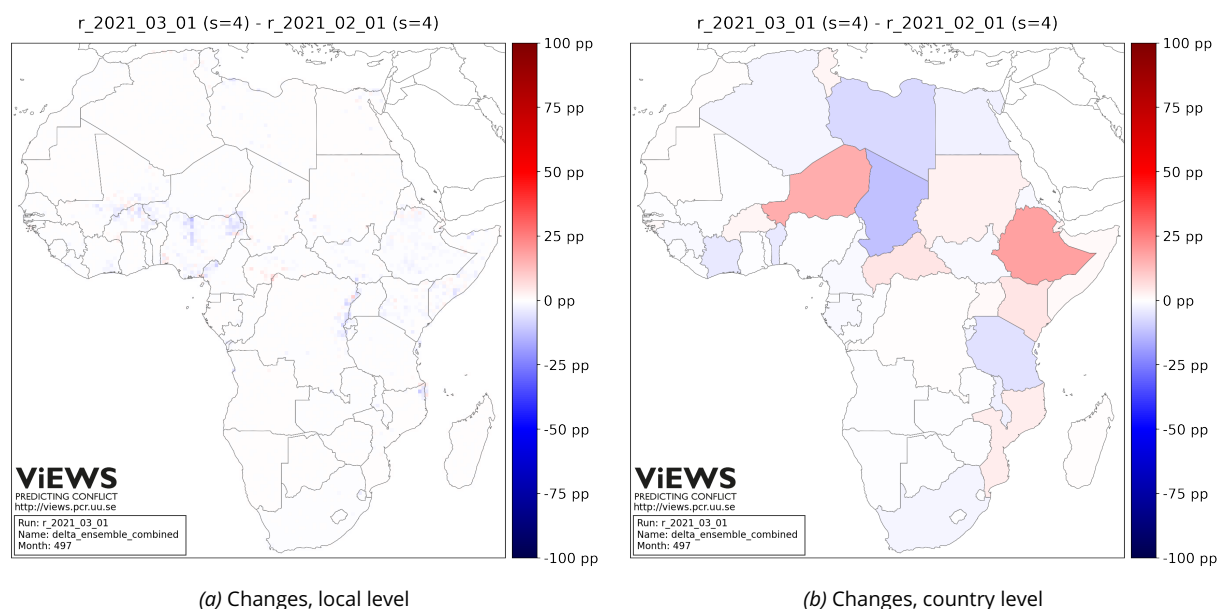


Figure 2. Changes to the combined forecasts since last month by percentage points (pp). Sub-national level (left) and country level (right).

also observed for Chad, which was free from fatal state-based violence over both December and January, albeit fatalities were recorded in the non-state and one-sided violence categories.

At the sub-national level, predicting the risk of at least one fatality per month from either type of political violence in 0.5x0.5 degree locations, notable risk elevations are detected in CAR (further discussed below) amongst otherwise mostly stable or declining risks across the continent (Figure 2a).

## STATE-BASED CONFLICT (SB)

The ViEWS system continues to generate alerts for conflict involving a government of a state in countries with a recent history of fatal political violence and/or mass protests. In DRC, Nigeria, Somalia, Cameroon, Mali, Burkina Faso, Mozambique and Egypt, risks of 25 or more fatalities in May 2021 remain high and above 50%, as seen from the bright orange fill colors in Figure 3a (red colors indicating a near-certain risk, light orange a risk equal to

a coin toss, and purple < 0.1% risk.)

The country-level forecasts have remained relatively stable as compared to last month. This is illustrated by the mostly white or faint fill colors in Figure 3b. Mapping the difference between the forecasts generated in March 2021 and those produced in February 2021, red color in the figure alerts to heightened risks, whereas blue points to declining risks. The severity of each risk alteration (by percentage points, *pp*) is illustrated by the color saturation; white indicating no change.<sup>2 3</sup> A number of updates to the risk projections can nevertheless be observed, most notably in Ethiopia, the Central African Republic, and Niger.

In Ethiopia, the predicted probability of 25 or more fatalities per month has increased by more than 16 percentage points since last month, an escalation informed by persisting violence between government forces with allies and members of the former ruling party (TPLF) in the Tigray region. Nearly 90 lives were lost to drone strikes in the region this past December, followed by the killing of 15 TPLF members in January. Casualties included the former Foreign Minister of Ethiopia, Seyoum Mesfin. A dispute between Eritrean and Ethiopian forces in Adigrat

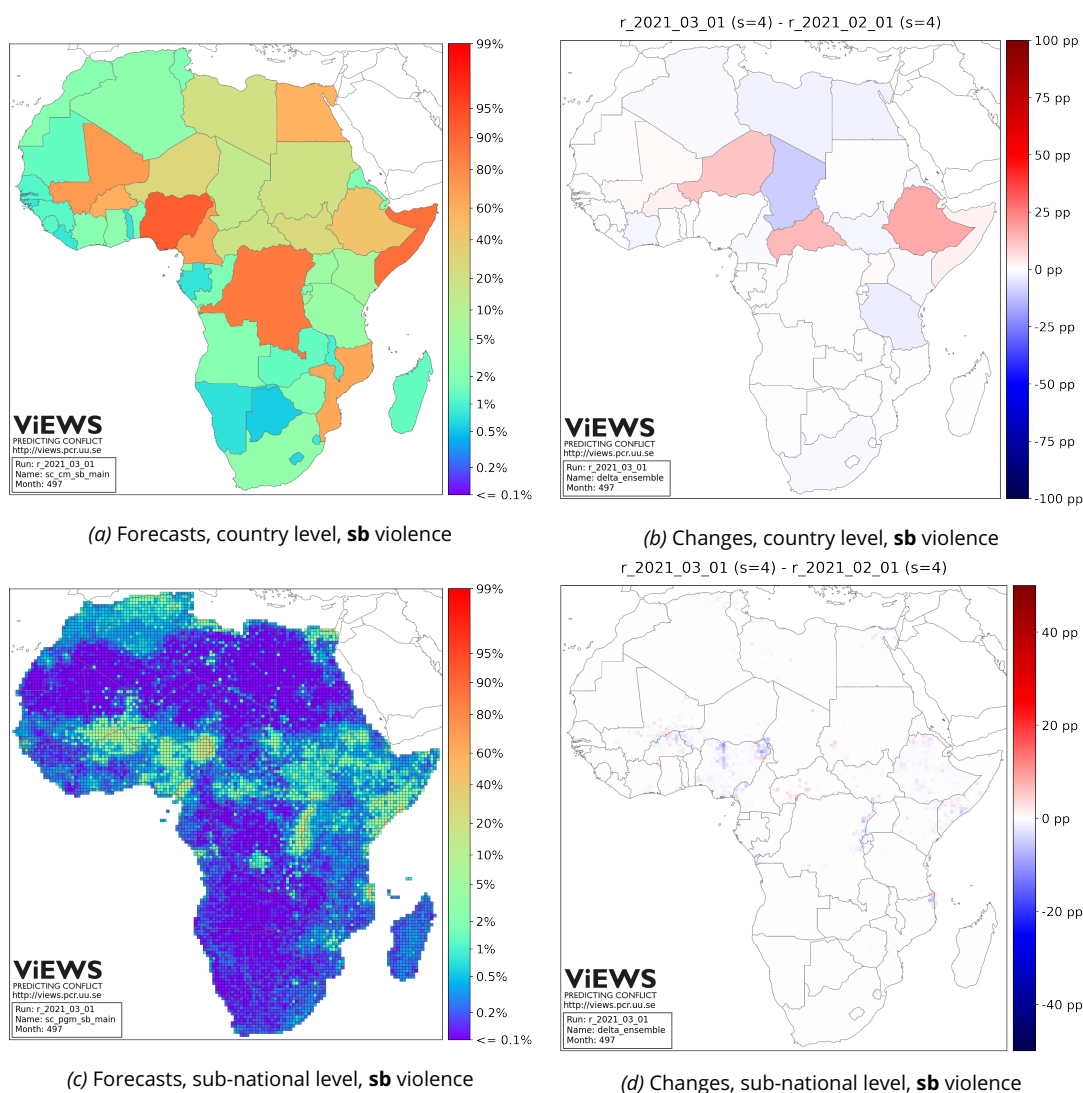


Figure 3. Forecasts for the risk of at least 25 fatalities (country level, top left) and 1 fatality (sub-national level, bottom left) from state-based (**sb**) violence in May 2021, and changes to the respective forecasts since last month by percentage points (right-hand column).

late January furthermore resulted in the death of at least two soldiers on each side, reportedly stemming from differences in the division of weapons between the two.

In CAR and Niger, in turn, projected risks have increased by more than 10 percentage points. The change in the former follows the December 3 rejection of former President Bozizé's candidacy by the Constitutional Court, citing an international warrant and UN sanctions against him. Bozizé's rejection led a coalition of armed groups—signatories to the Khartoum peace agreement—to join forces against the government in an attempt to halt the election process. The coalition known as the CPC (the Coalition of Patriots) has since launched a series of attacks on towns across the country, leading Rwanda, Russia, and France to intervene in support of the government. In the state-based violence category, the conflict took the lives of over over 30 people in December—including a num-

ber of peacekeepers—and more than 130 in January (as recorded in the UCDP-Candidate dataset) upon the announcement of incumbent Touadera's win. Nearly 200 000 people have been forced to flee their homes over this period, further exacerbating one of the largest humanitarian crises in the world.

In Niger, at last, the heightened risk of state-based violence is informed by continued jihadist attacks at the hands of various IS-affiliated groups, killing 21 in the Tillabéri region in December, and 26 in the Diffa region in January, with fatalities on both sides of the conflicts.

The location of the fatal incidences above are marked on the conflict history map in Figure 4a; black markers pointing to areas with fatal violence in January 2021, and bright red cells showing the sites of the December events.

Also the case of Chad also merits a note this month, as two months free from fatal violence involving a gov-

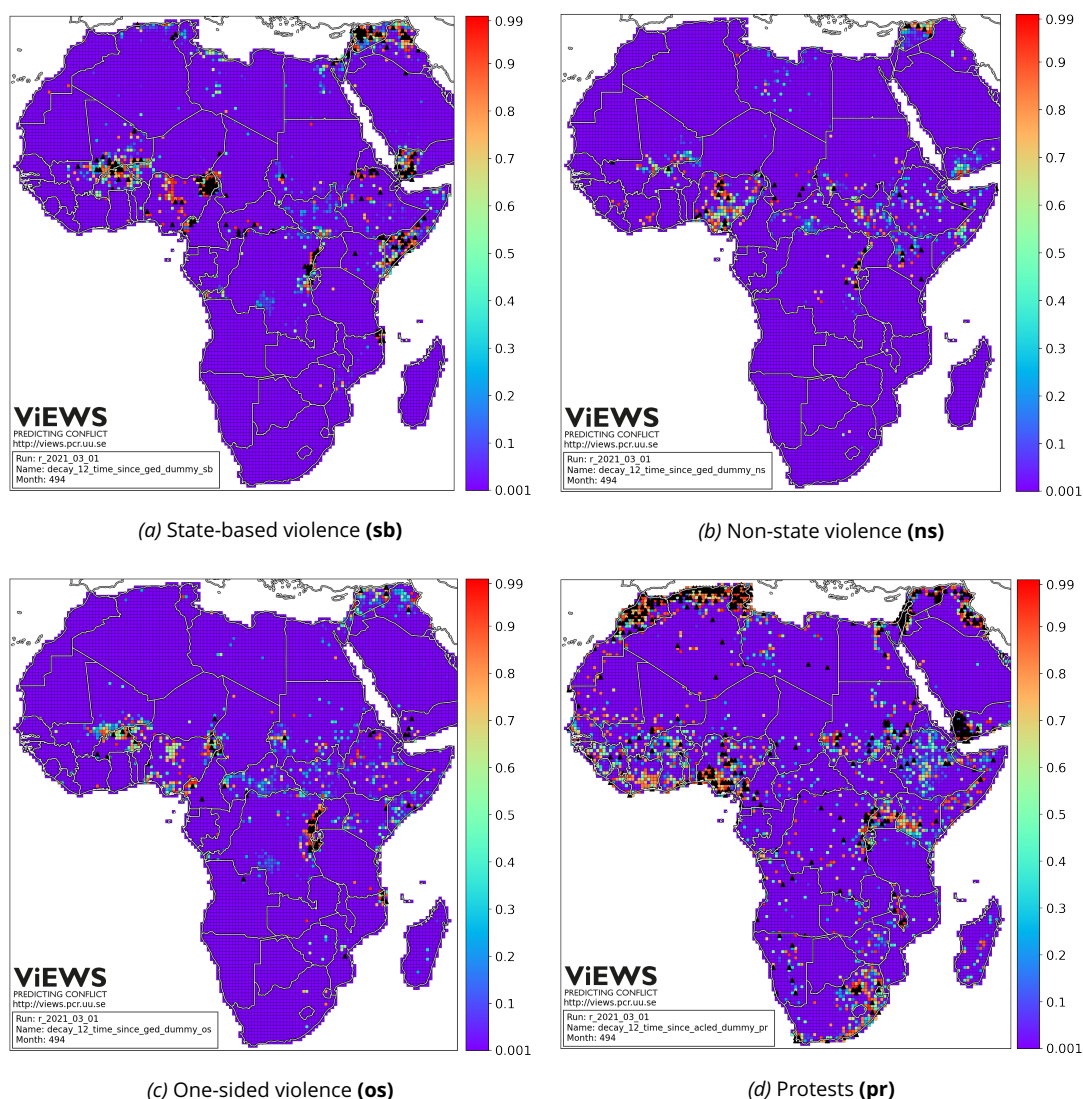


Figure 4. Illustrations of the recent history of fatal political violence as well as protests (violent and non-violent), as recorded by the UCDP (<http://ucdp.uu.se>) and ACLED (<http://acleddata.com>), respectively. Red cells observed qualifying incidents in January 2021 (distinguished by a black marker) or December 2020. Purple cells have not experienced such incidents for many years.

ernment of a state has led the forecasting system to reduce its country-level risk projection significantly (Figure 3b), albeit fatalities have been recorded in the other two violence categories.

Shifting our focus to the more refined sub-national level of analysis, instead assessing the predicted risk of at least one fatality per 0.5x0.5 degree location<sup>4</sup> in May 2021, we find the areas at particularly high risk to be concentrated in north-eastern Nigeria, the Anglophone region of Cameroon, the Ituri and Kivu provinces of DRC, southern Somalia, around Sinai and the Egyptian border to Israel, in the Cabo Delgado province of Mozambique, around Tripoli in Libya, in the Cabinda exclave of Angola, as well as in the extended border areas between central Mali, northern/north-eastern Burkina Faso, and south-western Niger. A more diffuse risk cluster also spans the Horn of

Africa and the protest-prone regions of Morocco, Algeria, and Tunisia.

Changes to the sub-national forecasts are relatively optimistic this month. Clusters of local risk elevations are observed in CAR, Ethiopia, and Niger (in connection with the discussion above), as well as in select locations in Cabo Delgado (Mozambique), southern Somalia, Mopti and Timbouctou in Mali, and in Sahel and Sud-Ouest in Burkina Faso—all of which grapple with continuous Islamist violence. The overall trend is however one of stable or declining risks across the continent, as seen from the predominantly white or blue fill colors in Figure 3d. Most prominent is the significant risk reductions in Borno, Katsina, Zamfara, and Kaduna states of Nigeria.



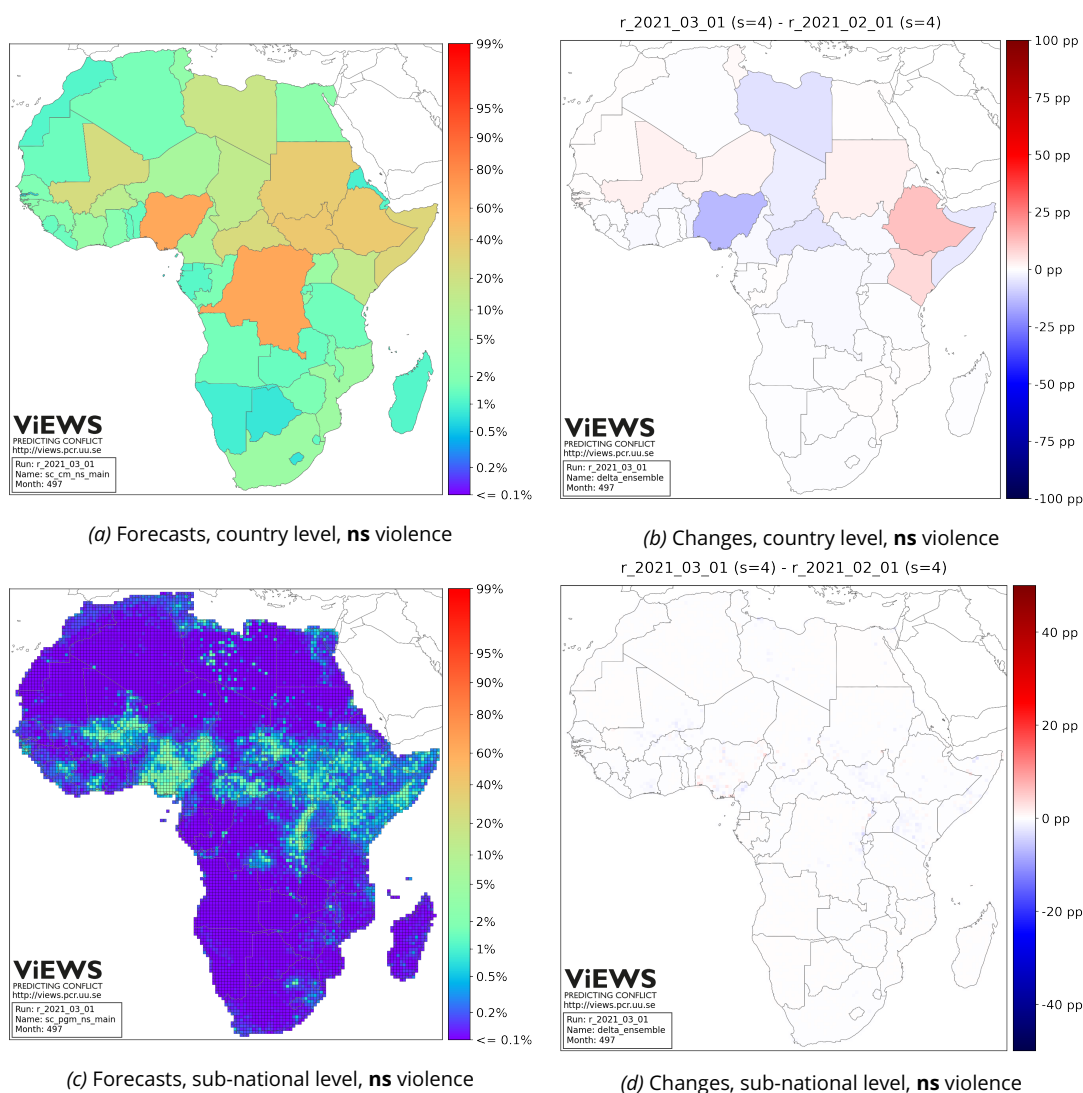


Figure 5. Forecasts for the risk (0-100%) of at least 25 fatalities (country level, top left) and 1 fatality (sub-national level, bottom left) from non-state (**ns**) violence in May 2021, and changes to the respective forecasts since last month by percentage points (right-hand column).

## NON-STATE CONFLICT (NS)

Seen from the mostly blue, green, or light orange shades in Figure 5a, the short-term risks of 25 or more fatalities per month from non-state violence are relatively low for the strong majority of the African countries, most often less than 10 or even 5%. DRC and Nigeria are the only two countries to exceed a monthly risk of 40% over the next few months—both at approximately 65% risk.

For Nigeria, the monthly risk of suffering 25 or more fatalities in the near future has reduced by nearly 15 percentage points since last month, due to a significant drop in the monthly fatality counts from non-state violence over December 2020 and January 2021 (January being the last month of conflict data informing this month's forecasts). Somewhat reducing risks are also detected in Libya, the Central African Republic, Somalia, and Chad

(see the change map in Figure 5b). Heightened risks, on the other hand, are observed in a handful of countries. Most notably, we find both Ethiopia and Kenya at significantly heightened risks over the near future, coupled with moderate risk elevations in Niger, Sudan, and Mali.

As for the state-based violence category, the Ethiopian risk elevation is due to a combination of violence in January 2021 and lagged effects from previously recorded incidences in December 2020, which are better reflected by the forecasting system this month upon a recent revision of the protest and conflict history models.<sup>5</sup> Part of a series of deadly ethnic violence in the Metekel zone in Benishangul-Gumuz state, over 200 people from the Amhara, Oromo and Shinasha minorities were killed in a massacre by the Gumuz on 23 December; another 130 in yet another massacre early-mid January. The two incidences have led the forecasting system to increase its risk

projection for the country by approximately 12 percentage points this month (Figure 5b).

In Kenya, the heightened tensions—a risk increase of about 7 percentage points (Figure 5b)—follow a number of communal and ethnic clashes over the course of December and January. On 1 December, a clash between ethnic Borana and Somali left 7 dead in the border area between Garissa and Isiolo counties. Early to mid-January, a retaliatory Pokot attack on the Turkana in Kapedo killed a 70-year-old Turkana man and left 10 houses torched, a raid by suspected armed rustlers left a herdsman killed and over 300 cattle stolen in Marsabit, an attack at Urura along the border between Isiolo and Wajir left at least six dead, intercommunal violence in Tana River killed two, and another six were found dead from a suspected bandit attack on 20 January in Arabal area, Baringo.

At the sub-national level, in turn, the forecasts—here of at least one fatality per location—remain quite stable as compared to last month, seen from the predominantly white or very faint color saturation in Figure 5d (most notable is a moderate risk elevation in Lagos (Nigeria) following a number of cult clashes in January). From Figure 5c, we thus find once more a diffuse risk belt spanning the Horn of Africa, the southern parts of Sudan, South Sudan, CAR, south-western Chad, northern-most Cameroon, Nigeria, and the extended border areas between Mali, Burkina Faso and Niger. We also find an intense risk cluster over the Ituri and Kivu provinces in DRC, scattered at-risk locations across Libya, as well as areas at higher risk over the Nile delta, southern Côte d'Ivoire and Guinea, West Kasai in DRC, the larger cities in eastern South Africa, and Eswatini.

## ONE-SIDED VIOLENCE (OS)

With a handful exceptions, the risk of 25 or more fatalities per month are relatively low (less than 5–10%) also with regards to one-sided violence—violence exerted by an armed actor against unarmed civilians—for the majority of African countries. Most pronounced are the risk profiles for DRC, Nigeria, Burkina Faso, and Mozambique (bright orange colors in Figure 6a). Also Ethiopia, Mali, Niger, Cameroon, South Sudan, Sudan, and CAR nevertheless stand out in the conflict forecasts for May 2021.

At the sub-national level—assessing the risk of at least one fatality per 0.5x0.5 degree location—results are more refined (Figure 6c). We find the Ituri and Kivu provinces of DRC to be particular hot-spots for one-sided violence, per-

sistently plagued by ADF attacks, police brutality, armed Banyamulenge groups (the Ngumino and Twiganeho), and—most recently—from militiamen of CODECO and the Patriotic and Integrationist Force (FPIC). A less severe risk cluster is also found over DRC's Kasai/Kasai-Central. In Nigeria, in turn, particularly high-risk locations include Borno state (which continues to grapple with Boko Haram and IS-affiliated groups), Katsina, Kaduna, and Zamfara states (with a history of banditry), and the southern regions. Other hot-spots include Cabo Delgado in Mozambique, central and western CAR, West and South Darfur in Sudan, and the broader risk cluster spanning central Mali, northern/north-eastern Burkina Faso, and south-western Niger (where Islamist militant operations continue to prevail). Last, a more diffuse cluster is found over the Horn of Africa.

Changes to the risk projections as compared to last month vary between the two levels of analysis (see Figure 6b vis-à-vis Figure 6d). While risks mostly appear to be stable or reducing at the local level, the country-level forecasts present a number of notable cases. Most striking is the overall risk increase by no less than 10 percentage points in Mozambique, where persisting Islamist violence in the Cabo Delgado province resulted in 19 civilians fatalities in December and another 24 in January, coupled with a fatal attack by the Renamo Military Junta on a truck convoy in Sofala on 9 January—despite the ceasefire announced by the group's leader the previous month. The heightened risk assessment is illustrated by the bright red fill color over Mozambique in Figure 6b; moderate local effects shown also at the location of the January events in Figure 6d.

Also Niger and Ethiopia observe heightened risks of one-sided violence over the near future (Figure 6b). The Nigerien escalation follows the death of over 100 people in the Tillabéri region, where suspected Islamist militants conducted simultaneous attacks on the villages of Tchombangou and Zaroumdareye on 2 January—a day that since has been marked as one of the country's deadliest days in recent memory. The Ethiopian case is more complex; while an escalation is well-merited with persisting and high-intensity violence in the Tigray region over December and January, we expect the the forecasts presented also in this report to 'underpredict' conflict risks in the country. While the forecasting models informed by UCDP and ACLED data have been revised since last month to better capture the most recent violence, data on the Ethiopian conflicts are still limited and delayed, as records of fatalities several months back are still stream-

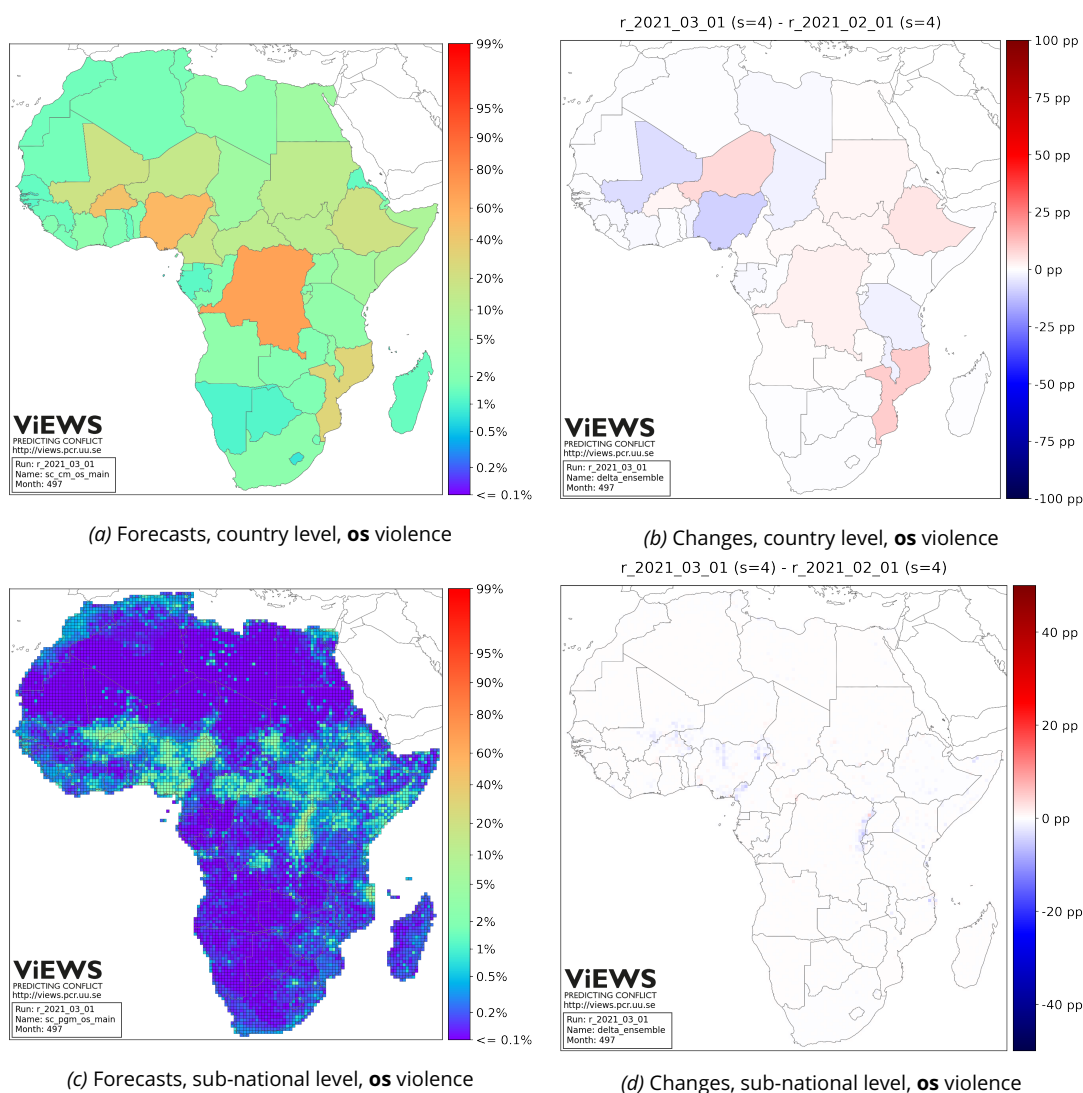


Figure 6. Forecasts for the risk (0-100%) of at least 25 fatalities (country level, top left) and 1 fatality (sub-national level, bottom left) from one-sided (**os**) violence in May 2021, and changes to the respective forecasts since last month by percentage points (right-hand column).

ing in. Death tolls from one-sided violence at the hands of Ethiopian and Eritrean government forces currently count well over 700 per month throughout the November 2020–January 2021 period in the UCDP-Candidate dataset, but only a fraction of the December–January data was available by the time of the data import for the March production of the ViEWS forecasts (36 fatalities in December and 14 in January).<sup>6</sup>

Last, we find a pronounced risk reduction in the country-level forecasts for Nigeria this month, illustrating the seemingly stabilising levels of violence in the country over the past two months (Figure 6b). After nearly 90 civilian fatalities from one-sided violence alone in November 2020, the monthly death toll plummeted to less than 30 per month over December and January.

## NOTES

1. The combined forecasts in Figure 1b, and the related watchlists in Table I, also make note of heightened tensions in Tanzania due to minor changes to some of the constituent models in the forecasting ensemble, namely the protest model. The country has however not observed any fatal violence over the past couple of months (as recorded in the UCDP-Candidate dataset) and is therefore not further discussed in this report.
2. Changes to the risk assessments as compared to last month are indicative of effects from new input data, most commonly by publicly available conflict and protest data from the Uppsala Conflict Data Program

(UCDP, <http://ucdp.uu.se>) (Pettersson, Högladh, and Öberg, 2019; Sundberg and Melander, 2013; Hegre et al., 2020) and the Armed Conflict Location and Event Dataset (ACLED, <http://acleddata.com>) (Raleigh et al., 2010).

3. Over the course of the past month, the forecasting models informed by UCDP and ACLED data were revised to make better use of the most recent data updates (see the change log available at [https://github.com/UppsalaConflictDataProgram/OpenViEWS2/blob/master/projects/monthly\\_report/changelog.md](https://github.com/UppsalaConflictDataProgram/OpenViEWS2/blob/master/projects/monthly_report/changelog.md)). The change maps presented in this month's report therefore effectively alert to changes in both December 2020 and January 2021. No other modeling changes have been made.
4. 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.
5. Last month, we noted that the recent violence in Ethiopia and CAR was not adequately reflected by our forecasts, upon which we have now revised and retrained the models that are informed by conflict and protest data from UCDP and ACLED in order to make better use of the most recent data updates. The change maps presented in this report therefore effectively alert to data covering both December 2020 and January 2021.
6. This discrepancy in data between current records and the data publicly available by 1 March is visible from the conflict history map in Figure 4c, in which only two fatal conflict locations are marked, while fatalities have now been recorded in nearly all administrative zones of the Tigray region.

## REFERENCES

Hegre, Håvard, Marie Allansson, Matthias Basedau, Mike Colaresi, Mihai Croicu, Hanne Fjelde, Frederick Hoyles, Lisa Hultman, Stina Högladh, Remco Jansen, Naima Mouhleb, Sayeed Awn Muhammad, Desirée Nilsson, Håvard Mokleiv Nygård, Gudlaug Olafsdottir, Kristina Petrova, David Randahl, Espen Geelmuyden Rød, Ger-

ald 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. doi: 10.1177/0022343319823860. 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 (2021). "ViEWS<sub>2020</sub>: Revising and evaluating the ViEWS political Violence Early-Warning System". In: *Journal of Peace Research* In press.

Hegre, Håvard, Mihai Croicu, Kristine Eck, and Stina Högladh (2020). "Introducing the UCDP Candidate Events Dataset". In: *Research & Politics* 7.3 (3), p. 2053168020935257. doi: 10.1177/2053168020935257. url: <https://doi.org/10.1177/2053168020935257>.

Pettersson, Therése, Stina Högladh, and Magnus Öberg (2019). "Organized violence, 1989–2018 and peace agreements". In: *Journal of Peace Research* 56.4, pp. 589–603. doi: 10.1177/0022343319856046. url: <https://doi.org/10.1177/0022343319856046>.

Raleigh, Clionadh, Håvard Hegre, Joakim Karlsen, and Andrew Linke (2010). "Introducing ACLED: An Armed Conflict Location and Event Dataset". In: *Journal of Peace Research* 47.5, pp. 651–660. doi: 10.1177/0022343310378914. url: <https://doi.org/10.1177/0022343310378914>.

Sundberg, Ralph and Erik Melander (2013). "Introducing the UCDP Georeferenced Event Dataset". In: *Journal of Peace Research* 50.4, pp. 523–532. doi: 10.1177/0022343313484347.

Tollefsen, Andreas Forø (2012). *PRIO-GRID Codebook*. Typescript, PRIO. url: [http://file.prio.no/ReplicationData/PRIO-GRID/PRIO-GRID\\\_codebook\\\_v1\\\_01.pdf](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.

## DATA SOURCES

### Conflict and protest data

Uppsala Conflict Data Program (UCDP)  
<http://ucdp.uu.se>



Armed Conflict Location and Event Data (ACLED)

<https://acleddata.com>

## Other input data

Varieties of Democracy (V-Dem)

<https://v-dem.net>

World Bank World Development Indicators (WDI)

<https://datacatalog.worldbank.org/dataset/world-development-indicators>

International Crisis Group's Crisis Watch (ICGCW)

<https://www.crisisgroup.org/crisiswatch>

PRIO-GRID dataset

<https://grid.prio.org/#/>

REIGN Rulers, Elections, and Irregular Governance dataset (REIGN), <https://oefdatascience.github.io/REIGN.github.io/>

SPEI Global Drought Monitor (SPEI)

<https://spei.csic.es/index.html>

Shared Socioeconomic Pathways dataset (SSP)

<https://tntcat.iiasa.ac.at/SspDb/dsd?Action=htmlpage&page=welcome>

Ethnic Power Relations dataset (EPR)

<https://icr.ethz.ch/data/epr/>

## DEFINITIONS AND MODELING SET-UP

### Types 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 two 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

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 nevertheless most often informed by the latter, more specifically by data updates from the Uppsala Conflict Data Program (UCDP, <http://ucdp.uu.se>) and the Armed Conflict Location and Event Dataset (ACLED, <http://acleddata.com>).

While the national level forecasts do inform 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.

The 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 January 2021). Forecasts for  $s = 1$  would thus effectively have referred to forecasts for last month,  $s = 2$  to the 'nowcast' for the month of writing,  $s = 3$  to the forecasts for the following calendar month, and so forth.

### FUNDING

The research presented in this report was funded by the European Research Council, project H2020-ERC-2015-AdG 694640 (ViEWS), and Uppsala University ([www.uu.se](http://www.uu.se)).



### 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](https://github.com/UppsalaConflictDataProgram/OpenViEWS2)

The full list of publications are accessible at:



[https://pcr.uu.se/research/  
views/publications/](https://pcr.uu.se/research/views/publications/)