

# ViEWS monthly forecasts, August 2020\*

## Summary of forecasts

Sunday 27<sup>th</sup> September, 2020

**ViEWS**  
PREDICTING CONFLICT

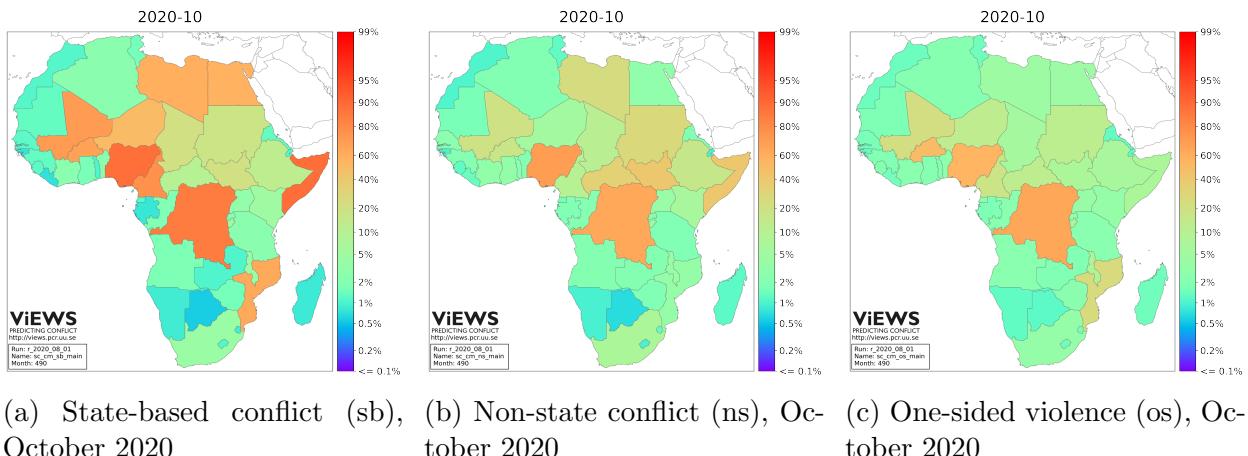


Figure 1: Ensemble forecasts for October 2020

This report presents ViEWS forecasts at  $s = 4$  for October 2020 as of 1 August 2020, which are based on data that are updated up to and including June 2020. The underlying conflict data were produced by the UCDP (<http://ucdp.uu.se>). The ViEWS compilation of these data and data from other sources are available at <https://www.pcr.uu.se/research/views/data/downloads/>.

\*This report was prepared by Håvard Hegre, Mihai Croicu, Frederick Hoyles, Remco Jansen, and Angelica Lindqvist-McGowan. The research was funded by the European Research Council, project H2020-ERC-2015-AdG 694640 (ViEWS). The simulations were performed on resources provided by the Swedish National Infrastructure for Computing (SNIC) at Uppsala Multidisciplinary Center for Advanced Computational Science (UPPMAX).

In the following, we highlight developments in the most recent months. For a discussion of what underlies the forecasts in terms of slowly changing risk factors as well as methodological issues, see the ViEWS introductory article.<sup>1</sup>

Figure 1 shows our country-level forecasts (*cm*) for October 2020, Figure 5 the corresponding forecasts at detailed geographic locations (PRIO-GRID level, or *pgm*)<sup>2</sup>, and Figure 7 shows the most recent observed conflict events. Similar reports for previous months are available at <http://views.pcr.uu.se>, along with other information on the ViEWS project.

## 1 Changes to the forecasting system

Please note that the August run of the ViEWS system employs a new forecasting set-up which entails a number of model revisions. On the country level, the new set-up also entails a shift from predictions of at least one fatality in a given country and month to predictions of at least 25 fatalities. The predicted probabilities presented in this report therefore appear much lower than in previous months and should be interpreted against the backdrop of this new threshold. The revisions to the forecasting system are carefully detailed in a forthcoming article in the *Journal of Peace Research*. The article will be available via the ViEWS website as soon as it is published. Until then, we refer to the forecast report from the September run of the system for further information.

For ease of interpretability, the forecasts presented in this report have been compared to a retrospective run of the new forecasting system that was based on data up until 1 July 2020. Thus, all comparisons are based on forecasts derived from the same forecasting models and dependent variables (at least 25 fatalities on the country-month level, and at least 1 fatality on the PRIO-GRID-month level). Please note that the July 2020 report, however, was produced using the old set-up.

## 2 Country-month forecasts for October 2020

The plots in Figure 1 show the ViEWS country-level forecasts for the immediate future – what will happen in October 2020 according to our forecasts? We show the probability of at least 25 or more fatalities in each country in October 2020, based on data up to and including June 2020. Countries with a red color have been assigned with a forecast probability close to 1, whereas purple countries have been assigned with a probability of less than 0.01. When

---

<sup>1</sup><https://journals.sagepub.com/doi/10.1177/0022343319823860>.

<sup>2</sup>PRIO-GRID is a grid structure that divides the terrestrial world into squares of approximately 55 by 55 kilometers. See <http://grid.prio.org/>.

the forecasts indicate that no event is as likely as at least one event, countries are drawn with a light orange color.

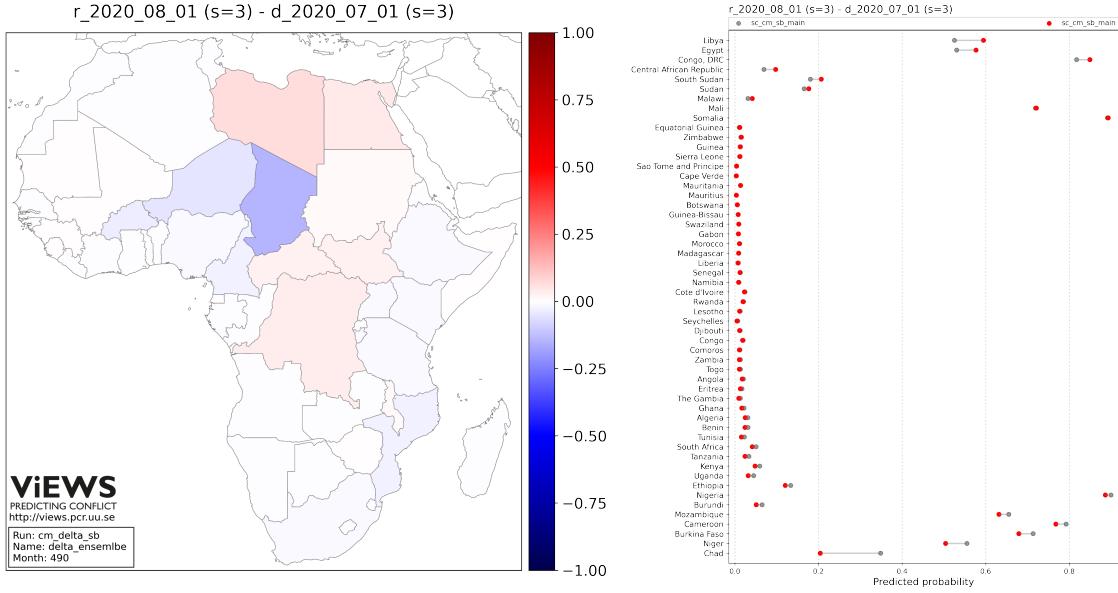


Figure 2: Change in predicted state-based conflict (sb) at  $s = 4$

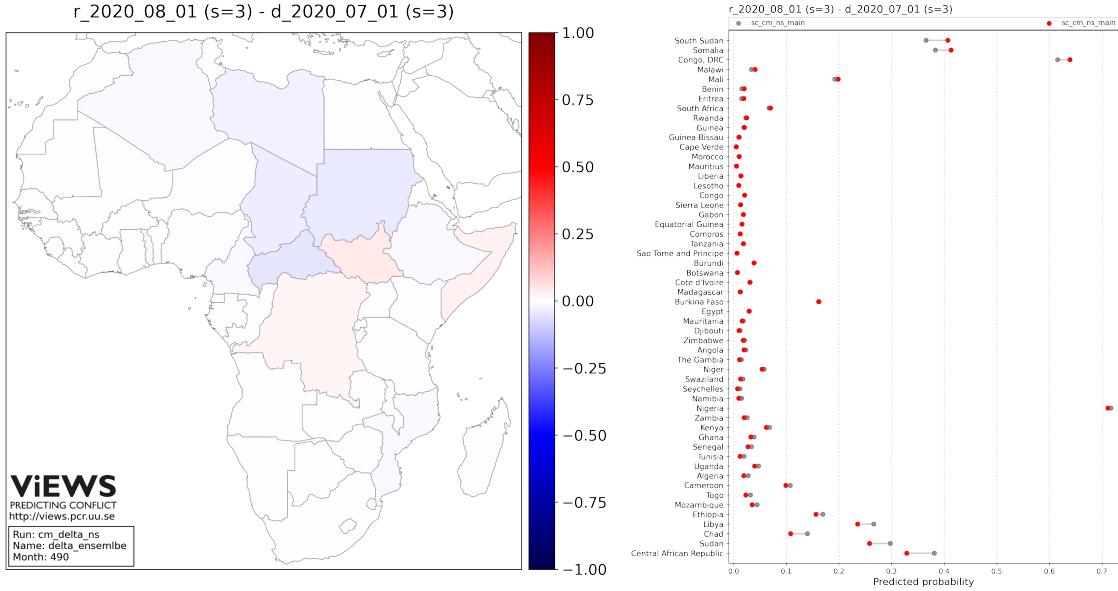


Figure 3: Change in predicted non-state conflict (ns) at  $s = 4$

## 2.1 State-based conflict (sb)

With the conflict threshold increased from at least 1 to a minimum of 25 fatalities, forecasted changes to the risk assessment of each country are far less pronounced in the August run of the

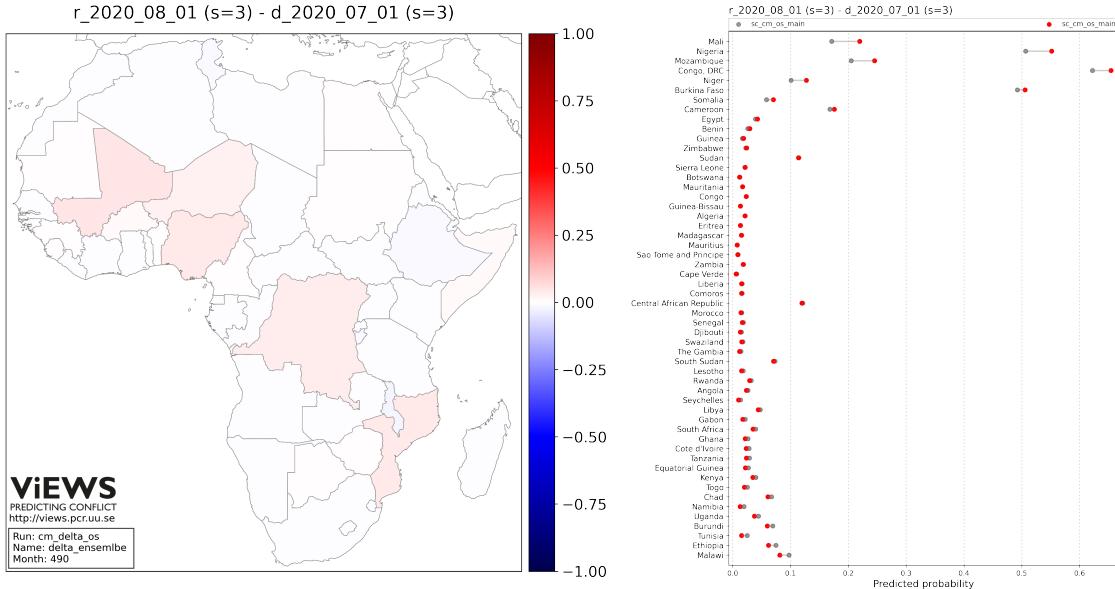


Figure 4: Change in predicted one-sided violence (os) at  $s = 4$

system. For the strong majority of countries, little to no changes are observed and the risks of at least 25 fatalities from state-based violence in October 2020 are predominantly lower than 0.2. Ten countries however remain at a risk above 0.5 even with the new threshold: Libya, Egypt, DRC, Mali, Somalia, Nigeria, Mozambique, Cameroon, Burkina Faso and Niger. Notable risk elevations are found in both of the former two, as seen from figure 2. In DRC, Somalia and Nigeria, at least 25 fatalities is nearly guaranteed, given a probability exceeding 0.8 for DRC and nearly 1.0 for the latter two.

A significant risk decrease is also observable for Chad, for which the predicted probability of conflict has decreased by approximately -0.15.

## 2.2 Non-state conflict (ns)

For non-state violence, the probabilities of at least 25 fatalities in October 2020 are very low; most countries do not even exceed a probability of 0.1. Only two countries observe a risk higher than 0.5: DRC (at approximately 0.6) and Nigeria (surpassing 0.7).

Risk decreases around -0.05 are found in four countries: Libya, Chad, Sudan and Central African Republic.

## 2.3 One-sided violence (os)

Also for one-sided violence, the probabilities at  $s = 4$  are extremely low; with nine exceptions, all countries observe a probability lesser than 0.1. Of the exceptions, only three countries

exceed a risk of 0.5. This is Niger (just surpassing 0.5), Nigeria (approximately 0.55) and DRC (at about 0.65), all of which also displayed a notable risk elevation.

### 3 PRIO-GRID-month forecasts for October 2020

Figure 5 shows the probability of at least one fatality in October 2020 in each fine-grained sub-national geographical location ('PRIO-GRID cell') and for each of the three outcomes. The forecasts are based on data up to and including June 2020. The color mapping is the same as for the country-month forecasts.

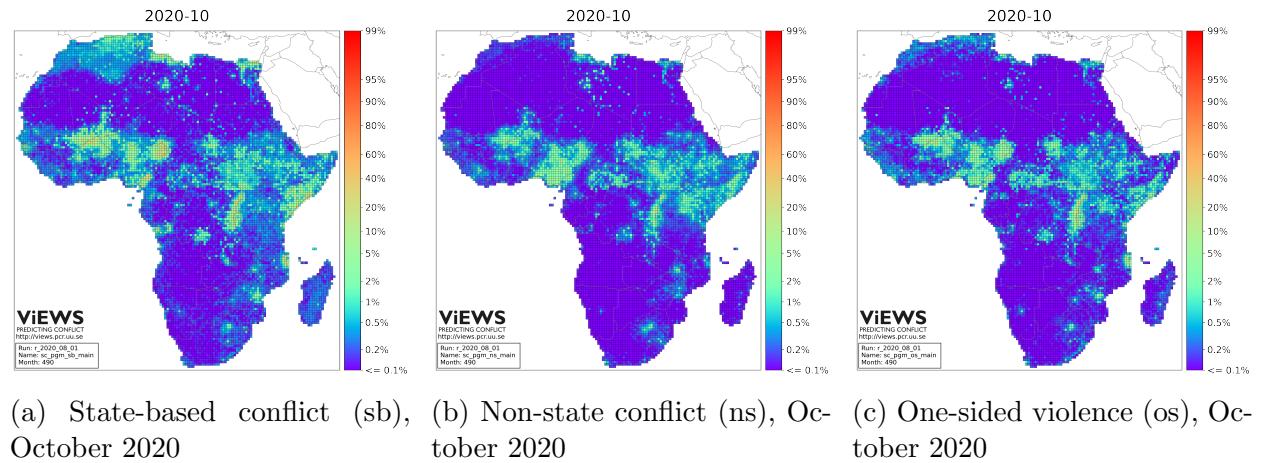


Figure 5: Ensemble forecasts for October 2020

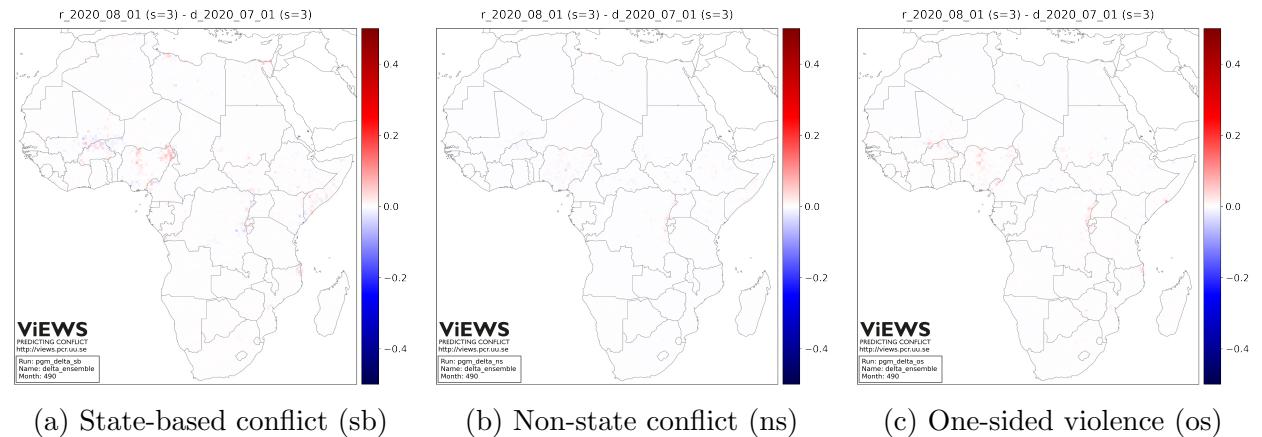


Figure 6: Change in  $pgm$  predictions at  $s = 4$  compared to last month

### 3.1 State-based conflict (sb)

The densest risk clusters at the  $pgm$  level for state-based conflict at  $s = 4$  continue to be found in north-eastern Nigeria, the Anglophone region of Cameroon, the Ituri and Kivu provinces of DRC, southern Somalia, the Nile delta and Sinai in Egypt, around Tripoli in Libya, the Cabo Delgado province of Mozambique, and in the border areas between central Mali, northern Burkina Faso, and south-western Niger.

Compared to the new forecasting system's July forecasts at  $s = 4$  (see figure 6a), the most pronounced changes in the risk assessment at the PRIO-GRID level also mostly align with the high-risk clusters. Risk elevations are most prominent in Nigeria, whereas declines prevail in Mali.

### 3.2 Non-state conflict (ns) and one-sided violence (os)

The forecasts for non-state and one-sided violence largely depend on the same factors as the forecasts for state-based violence, albeit with somewhat different implications.

Seen from Figure 5b, Nigeria and the Ituri and Kivu provinces of DRC continue to be the hotbeds for non-state conflict, along with the larger risk cluster that remains dispersed over the Horn of Africa. Likewise, the steady risk clusters over Sinai and the Nile delta in Egypt, as well as the protest prone regions in Morocco, Algeria, and Tunisia, remain intact. At  $s = 4$ , only a handful of subnational locations however face a conflict risk above 0.5, and risk changes across the continent are moderate, as seen by the mild color scheme in figure 6b.

Also for one-sided violence (Figure 5c), the general forecast trends look largely the same as last month. Central Mali, northern Burkina Faso, north-eastern Nigeria, the Anglophone regions of Cameroon, the Ituri and Kivu provinces of the Democratic Republic of Congo and northern-most Mozambique, all continue to feature the strongest risk clusters  $s = 4$ . These are also the locations for the greatest risk elevations.

## 4 History of UCDP organized violence

Figure 7 presents the recent history of violence in each PRIO-GRID cell. Red cells experienced violence in June 2020, and purple ones have not seen armed conflict in many years.

Figures 7a, 7b, 7c show state-based, non-state, and one-sided violence respectively from the UCDP. Figure 7d shows data on protests from ACLED (<https://www.acleddata.com>).

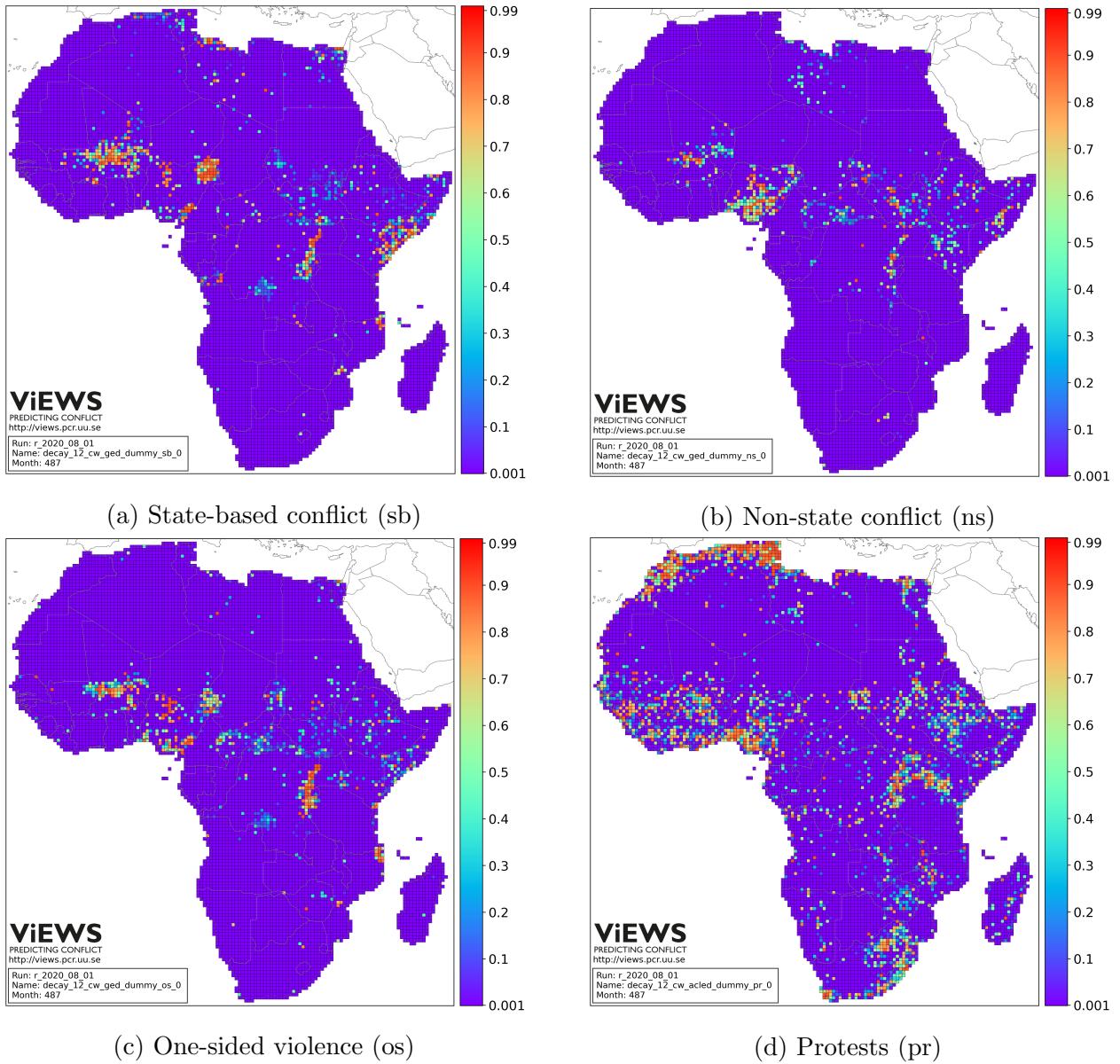


Figure 7: Decay function maps of observed conflict up until June 2020