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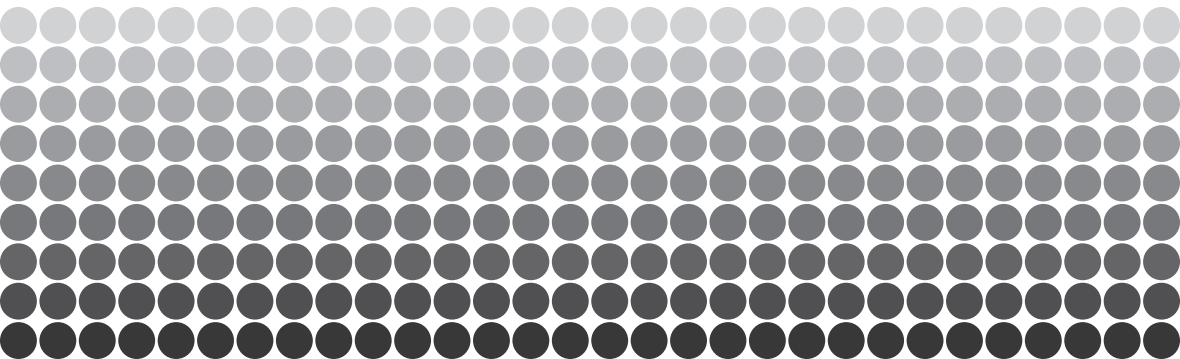
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Armaments, Disarmament and International Security

Measuring conflict incidence in Syria

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I. Measuring conflict incidence in Syria

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After three years of conflict in Syria, many remain sceptical that a viable way to bring peace will be found. Any attempt to mediate in the conflict requires an understanding of the conflict's dynamics, an area to which the discipline of peace and conflict research can contribute. However, as shown in 2013 by divisions in the United Nations Security Council and among states in the region, discussions of the evidence for chemical weapon use and disputes over which groups represent the anti-government forces, there is no unified, reliable, evidence-based narrative of the conflict.

The principal difficulty for conflict researchers is gathering reliable data, including from media reports. Given the complexity of the Syrian conflict, media bias in reporting remains a key challenge, plaguing the collection of useful data and misinforming researchers and policymakers regarding the actual events taking place. The seriousness of the consequences of the continuing failure of diplomacy and politics, and the urgency of better understanding the key elements behind the intensification of violence, mean that a more rigorous approach is needed, including for the gathering of data.

This section highlights the limitations facing the collection of conflict event data from media reports and proposes different methodologies to reduce bias and provide a clearer picture of what is taking place in one of the bloodiest civil wars of the 21st century.[1]

Geographically and temporally disaggregated data

Conflict research has recently focused on geo- and time-disaggregated data to understand dynamics of violence within countries.[2] Data sets such as the Armed Conflict Location and Event Data Project (ACLED) and the Uppsala Conflict Data Program (UCDP) Georeferenced Event Data (UCDP-GED) take this approach.[3] The use of geographical and temporal data in the analysis of violent conflict has advantages over qualitative assessments and

[1] The research reported here is based on a pilot project to build a data set on the incidence of violence and political actions in Syria. When completed, the data set will include detailed information on the location and time of violent actions, on political and diplomatic actions and on the actors involved, as well as event-specific evidence of the outcomes and means of violence. The pilot project started as a joint initiative between SIPRI, the London School of Economics and Political Science (LSE) and the German Institute for Economic Research (DIW Berlin) in Aug. 2013 and lasted until Oct. 2013.

[2] E.g. Gleditsch, K. S., Matternich N. W. and Ruggeri, A., 'Data and progress in peace and conflict research', *Journal of Peace Research*, vol. 51, no. 2 (Mar. 2014).

[3] Raleigh, C. et al., 'Introducing ACLED: an armed conflict location and event dataset', *Journal of Peace Research*, vol. 47, no. 5 (Sep. 2010); and Sundberg, R. and Melander, E., 'Introducing the UCDP Georeferenced Event Dataset', *Journal of Peace Research*, vol. 50, no. 4 (July 2013).

Violent action   Other forcible action   Political and organizational action
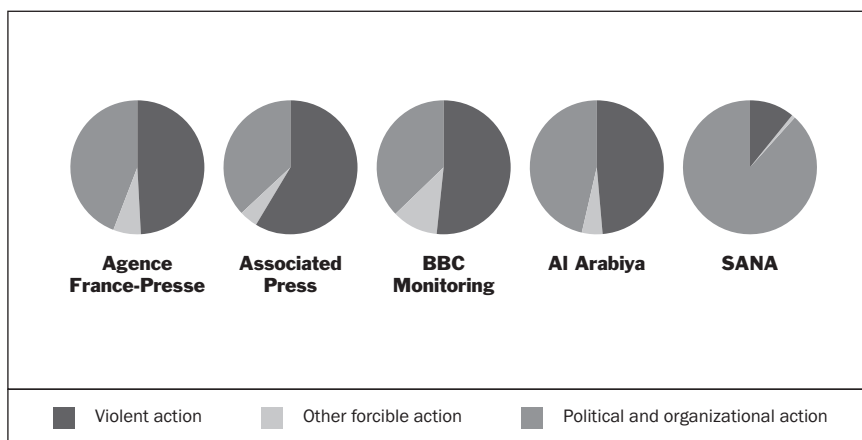
Figure 1.1. Type of reported conflict events in Syria, by media source

macro-level quantitative measures. First, it provides more detailed micro-level information on violence and permits more accurate analysis of variations between and within conflicts.[4] Second, it assists in examining changes within a certain conflict and the spatial spread of violence. Third, disaggregated data provides policymakers and diplomats with comprehensive knowledge on different incidences of violence.

Despite the growing availability of conflict event data sets, numerous analytical and conceptual challenges remain.[5] One challenge is the lack of a single definition of violence or precise tools to measure it. For example, ACLED covers both lethal and non-lethal battles, while UCDP-GED only codes events that result in more than 25 battle-related deaths.[6] The choice of definition of a violent conflict event significantly alters the object of analysis and may produce contradictory outcomes. Other challenges include lack of transparency in data gathering, media bias and source-selection biases.[7] The following subsection highlights the challenges related to biases in media reporting in a sample data collection on the Syrian civil war.

[4] Buhaug, H., 'Dude, where's my conflict? LSG, relative strength, and the location of civil war', *Conflict Management and Peace Science*, vol. 27, no. 2 (Apr. 2010).

[5] Gleditsch et al. (note 2); and Eck, K., 'In data we trust? A comparison of UCDP GED and ACLED conflict events datasets', *Cooperation and Conflict*, vol. 47, no. 1 (Mar. 2012).

[6] On the UCDP methodology see also chapter 2, section III, in this volume.

[7] Gleditsch, K. S. and Beardsley, K., 'Core issues in international data collection', eds P. F. Diehl and J. D. Morrow, *Scientific Study of International Processes*, general ed. R. A. Denemark, *International Studies Encyclopedia*, (Wiley-Blackwell: New York, 2010); and Chojnacki, S. et al., 'Event data on armed conflict and security: new perspectives, old challenges, and some solutions', *International Interactions*, vol. 38, no. 4 (2012).

Biases in traditional media sources

To assess possible media biases in reporting on conflict events, data was collected on conflict events in Syria reported by five traditional media sources—Agence France-Presse (AFP, a French news agency), Associated Press (a United States news agency), BBC Monitoring (a British Government-funded media-monitoring organization), Al Arabiya (a Saudi-funded Arabic-language television news channel based in the United Arab Emirates) and the Syrian Arab News Agency (SANA, a Syrian Government-owned Arabic-language news agency). The events were categorized as 'violent action', 'other forcible action', or 'political, diplomatic and organizational action'. The data contains temporal and geo-spatial information on the events, as well as the actors involved and the outcomes of the violence, among other variables. The period of the study was 60 non-consecutive days, chosen randomly between March 2011 and July 2013.[8]

The number of reported events in the Syrian conflict, both violent and political, varied enormously between news sources. Al Arabiya reported the highest number of events (741 events), followed by AFP (628), BBC Monitoring (538), SANA (332) and lastly Associated Press (267).[9] Moreover, there is clear variation in the types of conflict event reported by the five sources (see figure 1.1). As would be expected, SANA lies at one extreme: it barely reported on violent actions, especially during the period before 2013. Only 11 per cent of its reports were on violence, while the rest of its coverage focused on internal political events. The other four outlets all reported much more on violent actions, but there are still variations: for example, while 49 per cent of Al Arabiya's reports on Syria in the selected period were on violence, the equivalent figure for Associated Press was 59 per cent. In contrast, while Al Arabiya covered political action in 46 per cent of its coverage, Associated Press did so in only 37 per cent of its coverage. Such discrepancies in the number of events and on the type of event reported show that a data gatherer's choice of media outlet plays a significant role in the quality of conflict data collected, highlighting the concerns of media bias in the field.

The location within Syria of the conflict events sheds more light on these concerns. The regional distributions of the violent events reported by Al Arabiya and BBC Monitoring are fairly similar (see figure 1.2). Most of the violence during those periods was in Homs and Rif Dimashq (over 50 violent events), followed by Aleppo (between 30 and 40 events). BBC Monitoring reported more violent incidences in Idlib than the other news

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[8] Baliki, G. and Rigterink, A. S., 'Documentation Initiative of the Syrian Conflict (DISC) codebook', 21 May 2013, Unpublished manual, available from the authors.

[9] Since Associated Press reported on a much smaller number of events than the other international news outlets, conclusions related to this source should be interpreted carefully.
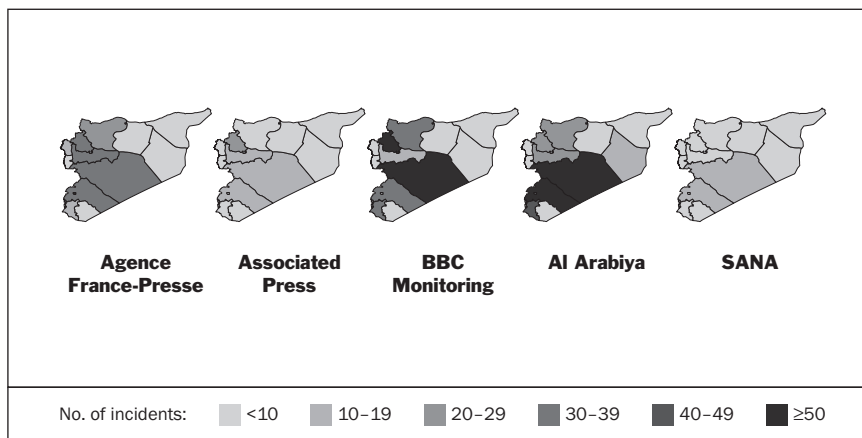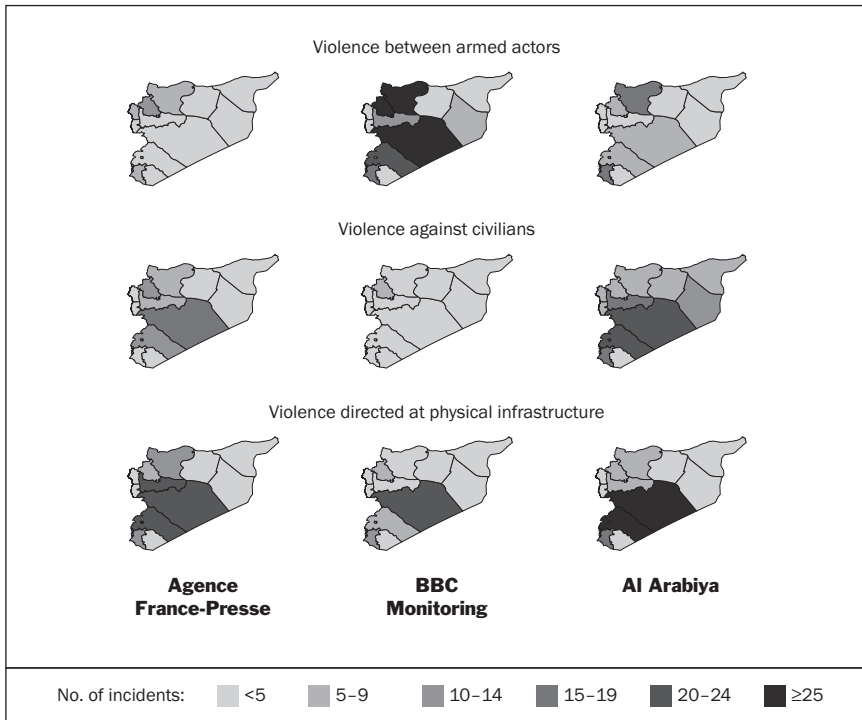
Figure 1.2. Reported incidents of violence in Syria, by media source and location

sources. Such a difference could reflect the availability of reporters from different news sources in areas under the control of different actors. The spatial distribution of violent events reported by AFP and Associated Press seem to differ slightly from the other international sources. In the case of Associated Press, this may reflect the much smaller number of reported events. SANA not only reported far fewer incidences of violence in Syria, but the events that it reported were concentrated in and around Damascus. Most of its reports were on opposition bomb attacks and military offensives against government facilities and forces. Other areas, such as Aleppo, were barely covered by SANA (close to zero events). Media source biases are thus also location-specific, and so one or a few sources are not sufficient to reflect the overall pattern of violence in Syria.

The type of violence—whether directed at civilians, armed opponents or physical infrastructure—reported by each media source also varies, and the variation is more pronounced. For example, Al Arabiya reported more violence against civilians in the 60 days studied, while BBC Monitoring reported more clashes between armed groups (see figure 1.3). These variations do not necessary reflect underreporting by one media source or the other, as was the case with SANA (see above). They may instead reflect ambiguity in the details of the reported events, possibly revealing differences in perspective on who is an armed actor and who is a civilian.

New sources of conflict data: social media and crowd-seeding

Geo- and time-referenced conflict event data has been established as an important source of information for the advancement of peace and conflict

Figure 1.3. Reported incidents of violence in Syria, by media source, location and type

research.[10] While this data certainly provides more detail, it is not necessarily more accurate, and data gatherers continue to face numerous hurdles in the choice of information sources and in the validation of the correctness, representativeness and completeness of the data.

Data collection involves two principal stages: first the identification of the secondary media sources and then the qualitative-to-quantitative recoding process. Traditionally, conflict data initiatives have relied on international (and usually English-language) outlets as a principal source of information. As the above data on the conflict in Syria shows, there is an undeniable inconsistency between such news sources in the reporting of conflict events. It is not just the number of events reported that varies, but also the location of events and the actors involved.

The recent exponential growth of online and social media outlets means that more information on conflicts is now publicly available. It is crucial for conflict researchers to integrate such sources into their coding processes. In the case of Syria, given the tight government controls on the traditional

[10] Gleditsch et al. (note 2).

media there, social media sources have become essential alternatives.[11] Nonetheless, information from unidentified sources needs to be carefully verified, particularly due to polarization of opinions in the dissemination of information.[12]

Taking one step beyond the use of traditional and social media secondary sources, data can also be gathered from primary sources via crowd-seeding. Unlike crowdsourcing, which mainly relies on anonymous reporters to share information online without verification of the sources, crowd-seeding involves on-the-ground correspondents who submit daily reports on violent activities in a conflict.[13] By maximizing the set of inputted infor-mation, such an amalgamation of data could assist in overcoming the bias associated with conflict reports. Although more data does not necessarily mean more accuracy, the use of crowd-seeding could simplify the identifi-cation and matching of similar events, reduce the number of underreported events, and refine as much accurate information.

Crowd-seeding will not be a panacea against biases, and it is not fault-free. Two main concerns relate to the safety of the reporters and their polit-ical affiliation. Using equipment and other means for reporting that secure identity, as well as randomizing the selection of the reporters both geo-graphically and politically, will help reduce such concerns. Other weak-nesses in crowd-seeding can be mitigated by, for example, asking the reporters if they witnessed the event first-hand or if they heard of it from others, and using this information to filter and assess the incoming reports. Another tool would be measuring the geographical distance between the location of the reporter and the event reported, hence creating a measure of the accuracy of the event reported.

Nevertheless, the use and development of the crowd-seeding method-ology, coupled with the growing use of information technology in gathering and sharing data might present a new way forward for the collection of conflict event data. This will ultimately provide a better picture to policy-makers and humanitarian agencies of the reality of violence and political events on the ground, such as in Syria.

[11] Lynch, M., Freelon, D. and Aday, S., *Syria's Socially Mediated Civil War*, Peaceworks no. 91 (United States Institute of Peace: Washington, DC, 2014).

[12] O'Callaghan, D. et al., 'Online social media in the Syria conflict: encompassing the extremes and the in-betweens', arXiv Preprint 1401.7535, 29 Jan. 2014, <http://arxiv.org/abs/1401.7535>.

[13] LSE has been granted funding from the UK's Economic Social and Research Council (ESRC) to initiate a project in Syria to gather conflict and peace data from primary sources via crowd-seeding.