

# Concept Note: The Global Impact and Vulnerability Alert System

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## **I. Background**

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1. Over the past decade, the international community has put in place a number of useful sector- specific global early warning mechanisms, ranging from systems tracking disease outbreaks and natural disasters to mechanisms that capture signs of droughts, famines and climate change to those that signal emerging complex emergencies. However, it has become clear in the context of the global food and economic crises that there are few mechanisms that are able to report across sectors on the immediate impacts that global shocks have on the lives of the poorest and most vulnerable populations<sup>1</sup>. As a result, decision makers find themselves having to make difficult decisions based on projections and anecdotal accounts as opposed to collected data that can immediately signal changes in welfare of the most vulnerable populations.

2. World leaders at the G20 Summit in London recognized this information gap and called on "the UN, working together with other global institutions, to establish an effective mechanism to monitor the impact of the crisis on the poorest and most vulnerable". At the April meeting of the UN system Chief Executives Board for Coordination (CEB), the UN's senior management committed to "urgently establish a UN system-wide vulnerability monitoring and alert mechanism to track developments, and report on the political, economic, social and environmental dimensions of the crisis".

3. On behalf of the Secretary-General, the Deputy Secretary-General has initiated discussions to explore how a Global Impact and Vulnerability Alert system (the "Global Alert system") – consisting of a Global Impact and Vulnerability Data Platform and a series of Global Alert products – could be established. This note describes initial thinking on the Global Alert system's objectives and purpose and its conceptual and operational parameters. It also provides a description of the underlying Global Data Platform and provides an initial discussion of sources and types of data to be collected.

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## **II. Objective of the Global Alert System**

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4. The objective of the Global Alert is to provide early indications of how an exogenous shock, like the financial crisis, is affecting the economic, social and political welfare of the most marginalized populations and countries. By analyzing both the exposure and resilience of populations to the changing environment, the Global Alert will

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<sup>1</sup> There is an increasing trend to link early warning systems so that information on one type of shock provided by one system is taken into account by another. For example, the Inter-Agency Standing Committee on Early Warning/Early Response combines information on vulnerability to food shortages, pests, animal diseases, human public health, children's conditions, population movements etc. The Global Impact and Vulnerability Data Platform will build on this network and expand it with additional data and tools for analysis.

also be able to signal emerging vulnerabilities. Both features will fill the information gap that currently exists between the point when a global or international crisis hits vulnerable populations and when information reaches decision makers through official statistical channels. The Global Alert will serve to galvanize both policy makers and communities to ensure that in times of global crisis, the fate of the poorest and most vulnerable populations is not ignored.

5. In particular, the Global Alert will:

- Provide the international community with early, real-time evidence of how a global crisis is affecting the lives of the poorest and most vulnerable populations;
- Raise “red” flags on newly emerging and dramatically worsening vulnerabilities of global concern;
- Provide high-level decision makers with real time information and analysis to ensure that crisis-related decisions take appropriate account of the needs of the most vulnerable countries and populations;
- Bring the “voices of the most vulnerable” into high-level decision making forums; and;
- Monitor the duration of a crisis.

6. The Global Alert will be **triggered when a crisis affects more than two countries in different geographic regions** (i.e. goes beyond a single-country or regional crisis) and when there are first “soft” signs that its impact will affect people’s lives beyond one dimension of welfare and will lead to a significant decline in their welfare. Thus the Global Alert system is not concerned with “typical vulnerabilities” nor will it focus on intermittent, localized shocks and vulnerabilities which are already monitored by existing early warning systems.

7. The Global Alert system would track not only who is *most severely* impacted by the consequences of a global crisis, but it would also seek to identify population groups that experience the *most dramatic changes* in their wellbeing. Where possible, differentiated impacts on specific population groups (e.g., men/women, rural/urban, etc.) should be captured. The Global Alert system will also need to be flexible to track newly emerging and possibly unexpected shocks and resulting vulnerabilities.

8. Once triggered, the Global Alert system would produce regular Global Alert products (see Section V) highlighting changing patterns of global impact and vulnerability. In order to capture early signals of a changing environment, it would rely in part on a small number of real-time economic, social, and political indicators chosen on the basis of their reliability and their sensitivity to environmental change. The Global Alert would analyze this data in the context of more traditional qualitative and quantitative data streams brought together in a Global Impact and Vulnerability Data Platform (see Section III).

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### **III. The Global Impact and Vulnerability Data Platform**

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9. The Global Alert system's core analytical products (see Section V) will be derived from a Global Data Platform, which will draw together data and software that will be freely accessible to all Member States, UN agencies, and the global public. The Global Data Platform will bring together both lower frequency and higher frequency (real time) quantitative and qualitative data. The lower frequency data refers to data that is collected on a yearly or less frequent basis (e.g., MDG indicators). For the purposes of the Global Alert, it will primarily provide the basis for assessing resilience (capacity to respond to a crisis) or exposure (existing transmission channels for the shock). It will also provide the base-line for assessing whether perceived trends on the ground were "abnormal" and likely to be a consequence of the external shock being monitored.

10. The higher-frequency data, or "real time data," will be collected on a quarterly, monthly or weekly basis along a few selected dimensions. Part of this data would be collected at sentinel sites in specific countries. Other sources of data would include Government agencies (including local authorities), NGOs and the local media. This data will constitute the heart of the Global Alert system, and will provide the real-time evidence – both qualitative and quantitative – of the effects of external shocks on marginalized populations. Data will be collected using a variety of methodologies, including mobile communication tools (i.e. text messaging), quick impact assessment surveys, satellite imagery and sophisticated media tracking systems.

11. Where possible, data will be drawn from existing data sources compiled by UN agencies, governments, and NGOs. Particular attention will be given to incorporating existing early warning and monitoring systems that already compile large amounts of data (e.g., IASC Early Warning Early Action System, GIEWS, FEWS, General Data Dissemination System, etc.).

12. The Global Data Platform will have to overcome a number of challenges with regard to its data inputs such as varying degrees of country coverage, limited data comparability and different data reliability. Methods for dealing with low quality data and data gaps will need to be adopted. Moreover, data could be hardest to collect for some of the most vulnerable population groups (e.g., migrants, seasonal workers, and households in remote rural areas) and possibly some vulnerable countries (e.g., post conflict and disaster prone countries). However, the usefulness of including the latter in the data collection efforts would still need to be discussed. Given that these countries are already being considered as vulnerable, real time data may not add greatly to our understanding of changing vulnerabilities. In addition, given the often large presence of humanitarian agencies in such countries and high levels of contact with the populations (e.g., in relief camps), data, if needed, may actually be easier to collect.

13. Data shortcomings are likely to be particularly acute in the case of the higher frequency indicators which are central to the Global Alert. For this reason a phased approach for collecting high frequency indicators will need to be adopted. In the first phase, the Alert may need to base its analysis on a **sample of proxy countries** where data collection efforts are currently more developed and solid. However, participation in the Global Alert's data collection will be open to all countries and special efforts will be made to help transfer rapid data collection "best practices" and technologies to interested countries.

14. While the scarcity of real time data may be partly due to data collection gaps (or in some cases a lack of rapid data transmission), it is also a function of dispersed and isolated data collection efforts. The Global Alert system will need to benefit early on from building a strong **network of data collectors**, both from within and outside the UN system, to bring data collection efforts together in a more systematic manner. Member States and NGOs will be critical partners in this enterprise. In addition, the Global Alert system will actively promote innovation in data collection through partnerships with academic institutions (e.g., [UCLA's Center for Embedded Networked Sensing](#) or the [New School's Parsons Institute for Information Mapping](#)), civil society organizations (e.g., [MobileActive.org](#)), and private sector partners such as the Nokia Foundation and Vodafone Group Foundation. To spearhead innovation, the Global Alerts system could include a specific "**innovation incubator**" that would promote the use of new, inexpensive technologies for data collection.

15. Quantitative data collection will be complemented by "**softer**" **qualitative information** collected through media scans (e.g., [InStedd](#)), wikis, opinion polls (e.g., [social weather stations](#)) and "eye witness accounts". This will add an important human angle to the data collected, and can help cross-validate real time data points. As much of this softer information will come in unfiltered, careful thought will need to be given to how to avoid overloading the Global Alert with too much information "noise".

16. The Global Data Platform will be "open" in three fundamental ways. First, access to provided data and software will be open to all. Second, users will be able to upload their own data which can then be used by anyone. Third, users will be able to access the analytical software available for data analysis, and add changes and modifications to develop new tools.

17. A data reliability and data analysis tool reliability index will need to be developed which will help users understand the limitations of the different data streams or data analysis tools available on the platform. Thus for example, data provided by UN agencies might get a gold star indicating that it had been carefully vetted and was deemed reliable; while data uploaded by the public might get a green star indicating that its reliability could not be assured.

18. The Global Alert will draw on a limited fraction of the data and tools available on the platform: those deemed to be most reliable.

19. The establishing of a Global Data Platform that brings together diverse strands of data will in itself be an important contribution to the international community. Many data platforms are closed: they allow use only by members of the organization or even require payment. The proposed platform would be open and thus would provide a “public good” to the international community. Existing data platforms and indicator frameworks tend to be sector-specific. As a consequence, they encourage narrow problem-solving. By drawing together a broad range of data streams the Global Data Platform will facilitate the analysis of complex interconnected dynamics which seem to be more characteristic of the emerging global challenges which we face today. Finally, once established, the Global Data Platform will be cost effective as it will eliminate the need for different agencies and partners to develop their own systems.

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#### **IV. The Global Alert System’s Analytical Framework**

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20. The Global Alert system will rely on a well-developed analytical framework that will focus on answering a series of “**big questions**” deemed to be important to decision-makers at the country, regional and global levels as they seek to address emerging vulnerabilities. They could, for example, include questions such as:

- Which population groups appear to be most severely affected by the global crisis?
- What new types of vulnerabilities are emerging in the context of the global crisis?
- Which countries (types of countries) are experiencing the greatest impact of the shock and which ones seem to lack adequate capacities to respond?
- If no action is taken, what potential longer-term consequences would the international community be faced with?

21. These questions will be answered by selected quantitative and qualitative data drawn from the Global Data Platform described above. The Global Data Platform will also provide a series of software tools that will allow analysis of the various quantitative and qualitative data streams brought together by the platform. These could be used by Member States, UN system agencies and the global public for conducting their own analysis. Thus, for example, UN system agencies, funds and programmes and NGOs could use the data and software packages to help inform their own programme planning.

22. The analysis will be periodically synthesized in a Global Alert (see Section V) which will be presented by the Secretary-General to world leaders and the global public.

23. The **quality of the Global Alert’s analysis** will determine how seriously its findings will be taken by decision makers. As the Global Alert will rely heavily on real-time data,

which is often less rigorously collected and vetted, it will be important to establish *clear quality standards for rapid data collection*, which all participating partners should observe. Moreover, it would be crucial that the analysis provided by the Global Alert fully discloses *data limitations*. It may be advisable for the Global Alert system to establish an Expert Advisory Group composed of well respected experts in the fields of data collection and vulnerability analysis to lend its findings additional credibility.

24. In addition, the Global Alert system should ensure that it provides an unbiased independent service. It should take into account the political economy of vulnerability assessments and claims.

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## V. The Global Alert System's Value Added

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25. The Alert will fill the information gap that currently exists between the point when a global crisis impacts vulnerable populations and when solid quantitative information reaches decision-makers through official statistical channels. The value-added of the Global Alert System is:

- It will provide real-time (or near real-time data) across a variety of sectors.
- It will provide a data platform that can be a one-stop shop for analysis that looks at how complex systems interact. In particular, it will help the international community understand the interaction between different threats and crises.
- It will go beyond country-specific studies to identify regional and global trends.
- It will be established as a public good--many efforts like this tend to be privatized and are available only for payment.
- While presenting relatively high start-up costs, it will lead to system efficiencies as member states, UN system agencies and NGOs will not need to invest in developing their own systems.
- It will become a focal point for highlighting with structured and systematic evidence how an exogenous shock affects vulnerable people and regions.
- It can become an effective programming tool that will help resource-constrained development actors choose their interventions to assist the most needy.
- It will help harmonize UN, member state and NGO data gathering efforts
- Over time it should help improve quality and quantity of data collected globally

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## VI. Communicating the Global Alert System's Findings

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26. Packaging and effectively communicating the Global Alert system's findings will be essential if its product (the "Global Alert") is to have an impact on decision making. While the Global Alert system will have multiple users (including the general public, UN agencies, development practitioners and the media), its primary target audience will be **world leaders**. High-level gatherings, such as the G8/20 Summits, the General Assembly

and the World Economic Forum, will present strategic communication opportunities throughout the year for the Secretary-General to share the Global Alert's findings.

27. The form and format of how the Global Alert system's findings will be presented will require careful consideration. It will be important to brand the Global Alert system correctly: it should be seen as a neutral fact-finding and not a fund raising tool (similar to [DevInfo's](#) "Facts. You decide" branding). Any such misperceptions could jeopardize the credibility of the Alert's messages. In this regard, the Alert should draw attention to both negative developments, but also highlight when situations may be improving.

28. Given the sensitivities associated with presenting country-specific alert messages, the Global Alert system's findings should be packaged as global trend statements, e.g. "*during the past 6 months, sentinel sites in x number of countries in y region have reported serious increases in child malnutrition*". It may be possible to underlay such statements with specific country warnings, such as "*in particular, we have received reports of dramatic increases from our sentinel sites in country x.*" The initially limited number of sentinel sites will require that country specific secondary messages are put into a clear context, i.e. reporting from one country does not necessarily mean that other countries (with similar profiles) are not suffering.

29. Given short attention spans and general information overload, the Global Alert system's products will need to find creative ways to attract world leaders' interest. In the past, **data presentation** has often been dry (using traditional pie, bar and area charts) and not always accessible. In the last few years, data visualization – bringing together disciplines such as graphic design, computer science and statistics – has become more exciting. The Global Alert products should explore the use of new data presentation formats (such as interactive graphics, infographics, geographic information systems and mappings) and new technologies (such as Gapminder's [Trendalyzer](#) software). Analytical data "snapshots", for example, could be developed to highlight vulnerability diamonds, correlations between specific indicators, trend developments over short time spans, and "overlays" between different crises.

30. The Global Alert system's communication package may include different types of products (see attached graphic). These will vary depending on the audience and level of presented analysis. The Global Alert system could, for example, produce quarterly situation reports ("sit reps") that would combine alerts with slightly more in-depth analysis. In addition, "buzzer alerts" could be provided – when new data raises red flags – as a means to quickly convey early signs of distress. Both types of communication tools could be complemented by illustrative examples ("eye-witness reports") that highlight how the lives of individuals are being affected by dramatic changes in their environment.

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## VI. Operational Framework and Governance

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31. The Global Alert system's operational set up will have to be a light and non-bureaucratic structure that builds on and connects existing global alert mechanisms and rapid data collection initiatives. In order to ensure its sustainability, the Global Alert system should avoid – where possible – creating new, cost-intensive structures. The operational framework will be composed of three building blocks.

- *A small analytical team:* The team will be responsible for vetting, analyzing and packaging the collected data streams for the Global Alert. The unit or network of analysts would be funded by extra-budgetary resources, and staffed by a small project staff as well as individuals seconded from agencies. The location of the small team has not yet been decided, but will in any case function under the authority of the Secretary-General. Various options will be considered, including hosting by one agency and a stand-alone arrangement. The team will need to have a close link to the UN's highest levels of decision-making, but should also be able to retain a certain degree of analytical and creative independence.
- *An open-source technical platform:* The Global Data Platform will centrally house the data collected and shared by partners. The open-source technical platform will be at the heart of the Global Alert system's operational framework. It will be accessible to the UN System, NGOs, Member States, as well as the wider public.
- *A network of partners:* The success of the Global Alert system will depend greatly on how effectively it manages to bring together the data collection capacities of various partners in the field. Rather than designing new rigid coordination structures, the Global Alert would connect its partners through a loosely-tied partner network (see below).

32. The governance arrangements for the Global Alert system should be equally light and flexible. The following mechanisms could be envisioned (but more discussion will be required):

- *An Expert Advisory Group* that would be composed of highly respected experts (from both within and outside the UN system) in the fields of vulnerability assessment, statistics, information mapping and rapid data collection. The Group would provide regular advice to the Global Alert Team on various substantive aspects of the Global Alert system's process and output.
- *A DSG chaired Taskforce* (continued from design phase) that would serve as a UN system coordination mechanism. It would meet every 4-6 months to provide guidance to the analytical team and oversee the overall functioning of the Global Alert and the Global Data Platform

- A *Partner Network* that would connect data providers and other interested partners (through a wiki or other networking tools) to promote regular exchanges of experiences and ideas on innovative data collection methodologies. Partners would also have an opportunity to meet face-to-face during an *Annual Partner Colloquium*. The colloquium would provide a networking opportunity, and act as a sounding board and source of ideas and innovation.

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## VII. Partnerships

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33. Building strong partnerships beyond the UN system will be crucial to allow the Global Alert system to provide a credible and sound indication of how vulnerable population groups are experiencing the different effects of a global crisis in their lives. As described above, the Global Alert system would actively promote outside partnerships for the following purposes:

- *Data collection*: New rapid data collection methodologies are being piloted by many, diverse partners in the field, including universities, government-associated institutes, civil society organizations and the private sector. In order to allow the Global Alert system to build on this increasingly rich information source, it would need to actively reach out to partner organizations to explore how to draw on these ongoing data collection efforts. In this regard, a mapping of rapid data collection initiatives should be completed to obtain a better understanding of existing efforts. Careful thought would also need to be given to partnership agreements, including the design of common quality standards for data collection.
- *Innovation*: Rapid data collection is a new and quickly expanding field. In order to harness the full potential of these new technologies, the UN should pro-actively engage with the thought leaders in this field. As mentioned above, it may be worth considering attaching a small “innovation incubator” to the Global Alert system.

27. In addition, it will be important – starting during the design phase – to actively reach out to UN Member States. Governments will play a central role as potential Global Alert system users and providers of information. There needs to be a clear understanding from the beginning among the UN membership of what the Global Alert system would deliver for Member States (its “value added”), and even more importantly, what it would not be doing. Potential misperceptions and concerns should be addressed as early as possible.