

ISSUE BRIEF: Using Technologies for Conflict Prevention

United Nations Development Programme

CRISIS PREVENTION AND RECOVERY



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RAPID INFORMATION-SHARING AND RESPONSE

Opportunities for applying digital tools such as mobile technology and social media for conflict prevention are increasing rapidly, paralleling the speed in which access to technology is expanding. Mobile phones, Facebook, Twitter and other digital tools offer exciting potential for preventive action, allowing information concerning potential violence to be shared quickly and immediate response to be activated.

For conflict prevention, new technologies offer unique and innovative opportunities, allowing real-time information to inform preventive action in potential conflict. The speed in which information is gained, shared, and acted upon is key to ensuring stakeholders are able to coordinate timely responses and address tension before escalating into violence.

Recognizing the potential of technology to complement existing approaches for early warning and early response, UNDP is deeply involved in pioneering applications of digital tools to conflict prevention. UNDP works with local partners and industry leaders to develop appropriate and effective tools.



Mobile phones and other technologies provide individuals with opportunities to gain access to information and participation. iStockphoto/ Cliff Parnell.

MOBILE TECHNOLOGIES FOR CONFLICT PREVENTION

Over the past few years, expanding access to mobile devices has resulted in the emergence of new types of information as a complementary tool for early warning. Widely used throughout the world, including in many conflict-affected and fragile contexts, mobile technology provides individuals with an opportunity to contribute information in a real-time manner.

As a result, preventive platforms become more participatory, including stakeholders that are directly and immediately affected by potential incidents of violence. UNDP's work in **Kenya** concerning the 2010 constitutional referendum is one example of this, where a toll-free SMS based service was set up to allow people from around Kenya to report threats. New technologies can also provide key conflict prevention actors, including UNDP, with a level of localized information not previously accessible.

UNDP using technology for collaborative conflict prevention: the 2010 Kenyan constitutional referendum

In **Kenya**, UNDP has pioneered crowdsourcing for conflict prevention during the country's constitutional referendum in 2010. With the memories of the 2007/2008 post-election crisis still fresh – the Uwiano platform was deployed, consisting of a toll-free SMS service allowing people from around Kenya to report threats. A total of 20,000 SMS messages were received, analyzed, and verified by volunteers and responses initiated involving civil society groups and the police. The referendum passed without violence.

Digital tools, such as online mapping, have been used for rapid information exchange in various fields, including humanitarian assistance and crisis management.

In **Haiti**, within 48 hours of the earthquake in January 2011, an SMS-based platform was set up that allowed individuals to send free text messages requesting help. As the number of messages received grew, the real-time information provided was used to coordinate the responses of humanitarian and development agencies involved in the emergency response, including UNDP.

CROWDSOURCING FOR CONFLICT PREVENTION

Crowdsourcing involves the use of digital tools such as SMS and social media for gathering and sharing real-time information. 'Crowdsourced' information, as the name suggests, is information that comes from a large crowd, whether it be a whole population or selected individuals. Information can be provided voluntarily and sometimes anonymously. Any type of information can be shared, ranging from number codes that correlate to a specific event, written text or points of interest identified on an online map. Mobile messaging, social media and other low-cost and easy-to-use technologies can be used to inform broader preventive mechanisms.

Maps are another area where crowdsourcing technologies are increasingly used. Maps can be custom-built, open to the public, or field partners to chart, contribute and verify real-time data.

UNDP supported the development of a mapping platform in **Kyrgyzstan**. This platform was used throughout the October 2011 national elections to mitigate the risk of election-related violence. Trained monitors were placed at polling stations to observe tensions and feed information via mobile messaging into the early warning-response system. UNDP, in conjunction with local partners, is currently supporting the development of a similar platform in **Liberia**.

TAILORING DIGITAL TOOLS TO LOCAL CONTEXTS

Digital tools can be tailored for local contexts, increasing the ability of technologies to be participatory and increasing local ownership. Examples include: online mapping platforms such as Ushahidi, which displays information submitted by users via SMS on a map; FrontlineSMS, a free large scale text messaging service that can be implemented without the use of the internet; or FreedomFone, which is a system that enables data collection over the phone using voice only which is useful in areas where low levels of literacy are a challenge.

Participants can send through information that serves as a warning to potential violence. Information can be shared with a central platform that coordinates an external response or amongst a crowd or group of people to facilitate an organic reaction.

Digital tools for early warning and early response offer an improved way of bridging the gap between 'warners' and 'responders'. The most appropriate and effective systems are typically those that draw upon technologies that are already common in a country, and ones which people from all walks of life are familiar with. In **Haiti** and **Kenya**, the SMS-based platforms were only effective because people had access to, and were familiar with, mobile technology.

KEY ISSUES

Digital tools can be deployed quickly and often at relatively low cost, but how they are used poses a number of challenges. One challenge is that users need to have basic trust in the system. This includes ensuring that the safety of contributors is not in jeopardy – this would undermine participation and have the opposite effect of what is intended to achieve. This is a particular challenge in countries where state authority is perceived to be part of the problem.

Broad and real-time participation are the defining elements in applications of digital tools in conflict prevention. However, they can also pose problems. Vetting information takes time, as there is a direct tradeoff between accuracy and speed. If a real threat is not addressed because information has not been vetted or if wrong information gets disseminated, the results can be catastrophic.

Directing responses and preventing violence remains the greatest challenge.

BUILDING CAPACITY AND PARTNERING WITH INNOVATORS

The potential of new technologies to act as conflict prevention tools is significant. However, it is important to note that any application will complement, not replace, existing conflict prevention frameworks. Digital tools offer the possibility of facilitating rapid information flows, enabling timely, localized responses before tensions erupt into violence. In turn, they present exciting potential for complementing and strengthening existing infrastructures for peace. Through working with local partners and industry leaders to develop innovative approaches, UNDP continues to build local capacity to prevent conflict. This contributes to establishing empowered lives and resilient nations.

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