

# Using Information Communication Technologies to Address Gender-Based Violence <sup>1</sup>

## Introduction

The last two decades have seen the rapid growth of information and communication technologies<sup>2</sup> (ICTs), and the proliferation of development interventions that seek to harness their power to advance economic and social development. ICTs are now being used in a wide range of ways to foster social change, from transforming public service delivery, to fostering citizen engagement in governance, and improving the efficiency of agricultural development.

Increasingly these technologies are also being employed in interventions to tackle gender-based violence (GBV). But as the use of these technologies to address GBV grows, what do we know about what works and why, how can UNDP staff take advantage of the opportunities the technologies present, while minimising the risks, and what are the best ways to develop, implement and measure the effectiveness of such interventions?

This paper, which was commissioned as part of UNDP's process of refining its strategic approach to working on GBV, outlines some of the ways in which digital technologies are being used to address GBV, the challenges and opportunities they present, and the impact of such interventions. It also highlights the potential ways in which UNDP could develop these types of innovations further. The paper draws on the experiences and learning from UNDP initiatives supported by its Innovation Facility<sup>3</sup> and innovations by others working in the field of gender-based violence.<sup>4</sup>

## Part One: An overview of the issue

### 1.1 The GBV challenge

Despite several decades of work to tackle gender-based violence, it remains a pervasive problem around the world. Gender-based violence is rooted in unequal gender power relations and related social and cultural norms, which may manifest differently depending on the social-cultural context. But other factors may affect GBV in a given setting, such as: the context (conflict, humanitarian, stable), the level at which the violence occurs (within an intimate relationship or perpetrated by the state, for example), the nature of the violence (domestic violence, female genital

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<sup>1</sup> Researched and written by Ceri Hayes, Independent Gender Consultant, on behalf of UNDP

<sup>2</sup> ICTs is an umbrella term that includes any communication device or tool that people use to share, distribute and gather information, and communicate with one another. This can include computers, the internet, mobile phone technology, radio, television, satellite systems and so on, although the majority of interventions described in this paper focus on the use of mobile technology.

<sup>3</sup> <http://inno4dev.org/>

<sup>4</sup> The report draws heavily on previously published work by the author on this subject, which was supplemented with additional desk research and interviews with several UNDP staff and external experts.

mutilation, sex trafficking etc) and the population affected by the violence (for instance, widows, adolescent girls, women with disabilities etc).<sup>5</sup>

Key obstacles to the effective prevention of and response to gender-based violence include: the hidden nature of GBV; the silence of survivors due to stigmatisation and widespread societal beliefs that violence is acceptable; weak or absent service provision, including security, health, social and legal services, particularly for marginalised populations and/or those living in remote areas; the risk of a backlash and further violence against those who report it or organise to challenge it; a lack of effective data systems to monitor, report and respond to the violence; and economic inequality.

### **What works?**

Rigorous data for what works to address GBV is still scarce. Most of the available evidence is skewed towards studies carried out in high-income countries, and it largely focuses on response, rather than prevention. The available evidence shows that successful interventions are those that include elements of: community mobilisation; critical discussion about gender relationships and the acceptability of violence; group training for women and men; work at the community level, not just with individuals; and combined livelihood and training interventions for women. Across different forms of violence, effective programmes are also likely to take a holistic approach, engage multiple stakeholders, be participatory, and combine face-to-face work with other approaches, such as media campaigns and skills building elements.<sup>6</sup>

## **1.2 The ICT response**

The use of ICTs to respond to some of these challenges has grown rapidly in the last decade. Research conducted in 2014 into the use and scope of these tools documented ICTs being used in a range of ways in GBV intervention and prevention, from mapping and gathering data, awareness-raising amongst families and communities, facilitating service provision and support for survivors, to monitoring and evaluation of interventions.<sup>7</sup>

It found many of these tools are embedded within a wider 'off-line' programme of work to tackle GBV and promote gender equality, although some tools have evolved independently of these broader interventions.<sup>8</sup> Some have been developed with violence *prevention* in mind, but for the most part the majority of tools developed to date focus on *mitigation* and *response*.

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<sup>5</sup> Moosa, Z. et al. *A Theory of Change for Tackling Violence against Women and Girls*, Gender and Development Network, ActionAid UK, Department for International Development and UK Gender and Development Network, 2012

<sup>6</sup> Heise, L. *What Works to Prevent Partner Violence: An Evidence Overview*, 2011; Ellsberg, M. *Prevention of Violence against Women and Girls: What Does the Evidence Say?* The Lancet, Volume 385, No. 9977, p1555–1566, 2015; Fulu, E etc. *AI Effectiveness of Interventions to Prevent Violence against Women and Girls: A Summary of the Evidence*, 2014

<sup>7</sup> Hayes, C. *Tackling Gender-Based Violence with Technology: Case Studies of Mobile and Internet Technology Interventions in Developing Contexts*, STATT, 2014

<sup>8</sup> *Ibid* p.30 Initiatives that have evolved independently tend to link with organisations working in the field for advice on developing and localising the technology for different contexts or have embedded links to organisations that can provide users with further support in the technology itself, although this is not always the case. Women's rights advocates have criticised the development of these tools without due consultation with GBV experts and survivors (see section 1.3 for more details).

It is possible to group technology-based interventions into several broad categories – tools for survivors, tools for advocates, tools to provide voice and empowerment, and tools to crowdsource,<sup>9</sup> map and share information – although in practice many of them cut across these different categories.<sup>10</sup> Most of the examples highlighted in this paper focus on the use of mobile and internet technologies.

### 1.2.1 Tools for survivors

The development of personal safety apps, designed to protect individual users when faced with a threatening situation, has proliferated in the last few years. A number of these, such as Circle of 6,<sup>11</sup> were initially designed for use by college students in North America and Europe. However, since the high-profile gang rape of a young woman in Delhi in 2012, India has led the way in developing many of these mobile phone applications.<sup>12</sup>

The basics of most apps are similar: a user-decided list of emergency contacts to alert, and transmission of GPS-determined location. Some of them have a built-in alarm. The apps have become more sophisticated as they've evolved, with many activated by a scream or a vigorous shake, whereas earlier versions required the user to press a number of buttons.<sup>13</sup>

These modern-day equivalents of the 'rape alarm' have proved very popular amongst urban, middle-class populations, and anecdotal evidence suggests users feel safer carrying a phone with one of these apps.<sup>14</sup> However, to date most people in developing countries have limited access to smart-phones, and the infrastructure may not exist to provide individuals with the rapid response required in emergency situations.

Women's rights advocates have also warned that a lot of safety apps are being designed without consultation with survivors of violence or those who work with them, and are often framed in a way that perpetuates the problem by putting the emphasis on women to prevent the violence themselves, rather than on the perpetrators.<sup>15</sup> In an attempt to improve the quality of safety apps, one organisation, the Association for Progressive Communications, has designed a rubric to enable users to review the quality of safety apps.<sup>16</sup>

In addition to promoting personal safety, ICTs are also being used to facilitate survivors' access to essential services. For instance, in 2013 Vodafone Foundation Fiji launched mWomen, a mobile phone technology service that enables survivors to

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<sup>9</sup> Crowdsourcing is the practice of engaging a 'crowd' or group of people for a common goal —often for innovation, problem solving, or efficiency.

<sup>10</sup> Burns, C. cited in Hayes (2014)

<sup>11</sup> <http://www.circleof6app.com/>

<sup>12</sup> See, for instance, '15 personal safety apps for women' reviewed in the Times of India, December 2015:

<http://timesofindia.indiatimes.com/tech/slideshow/15-personal-safety-apps-for-women/itslideshowviewall/45431568.cms>

<sup>13</sup> *Ibid*

<sup>14</sup> Hayes, C p26 (2014)

<sup>15</sup> Interview with Sara Baker and Katerina Fialova, Association for Progressive Communications, November 2015

<sup>16</sup> <https://www.takebackthetech.net/take-action/2015-11-25-0>

interact with lawyers and professional counsellors using basic handsets.<sup>17</sup> In Palestine, the NGO, SAWA, has developed their ICTs to improve the service they offer survivors of GBV at a national call centre. This has resulted in a sophisticated computer system that allows its operators to receive multiple calls at the same time as well as remotely, and to establish an integrated database that can collect demographic data that is linked with a referral system list and reporting system.<sup>18</sup>

### **1.2.2 Tools for advocates**

The active engagement of women across the internet is in itself a powerful way of challenging the norms that lead to gender-based violence,<sup>19</sup> but the internet and social media tools are also providing a powerful platform for activists to amplify their advocacy efforts to end GBV. For instance, a new campaign #HerVoice has seen nine Indian non-governmental organisations come together online to demand government action and raise public awareness of sexual violence against women.<sup>20</sup>

TakeBacktheTech, a global, collaborative campaign project that seeks to address the intersection between violence against women and the internet, provides a range of tools for advocates on its website, including online advocacy tools, blogs, campaign kits, content creation forums and mapping tools, in a number of different languages.<sup>21</sup>

Another website, Crowdvoice, tracks voices of protest by curating and contextualising data, such as eyewitness videos, photos, and reports as a means to facilitate awareness regarding current social justice movements globally.<sup>22</sup>

### **1.2.3 Tools for voice and empowerment**

Access to information is vital to empower women and girls and bring an end to GBV. Technologies are increasingly being mobilised to help organisations disseminate vital information to survivors about their rights and to provide platforms for survivors to share their experiences and support each other. Crucially, a number of these are resisting the temptation to develop ICT-responses from the 'top-down', but are instead adopting a 'build with, not for survivors' approach.<sup>23</sup>

The UK-based social enterprise CHAYN has created online resources with and for women survivors of GBV in various countries. It uses crowdsourcing to collate materials for toolkits that offer practical support to survivors and the NGOs that work with them, on issues such as mental health and how to build a domestic violence case without a lawyer. It does this with the help of volunteers from across

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<sup>17</sup><http://foundation.vodafone.com.fj/resources/uploads/embeds/file/jeevan20.pdf>

<sup>18</sup> Hayes, C (2014)

<sup>19</sup> Interview with Sara Baker and Katerina Fialova, the Association for Progressive Communications, November 2015

<sup>20</sup> <http://www.withhervoice.org/>

<sup>21</sup> <https://www.takebackthetech.net/about>

<sup>22</sup> <http://crowdvoice.org/gender-violence-in-south-africa?all=true>

<sup>23</sup> Interview with Hera Hussain, Founder of CHAYN, November 2015

the globe, including survivors themselves and GBV experts, and makes these easily accessible via its website.<sup>24</sup>

The NGO, World Pulse, provides women with access to a safe online community where they can share learning, discuss solutions to issues such as GBV, and take action.<sup>25</sup> And APC has created a platform for digital story-telling, which gives women control over the medium, choice of words, pictures and music, so the process is as powerful for the story-teller as it is for the listener.<sup>26</sup>

For many women without access to these technologies the options are more limited, although some organisations are finding creative ways to address the digital divide. In rural Sierra Leone, for instance, the US-based non-profit organisation, Media Matters for Women,<sup>27</sup> is linking traditional systems of radio broadcasting with mobile phones to create innovative digital communication networks to disseminate information on GBV and other issues to women and men living in remote parts of the country.<sup>28</sup>

The low-cost project has enabled several thousand women access to information about their rights, side-stepping the bureaucracy of government institutions and overcoming the challenge of high levels of illiteracy and low levels of access to technology. The use of solar rechargers has made radio programmes available even when there are frequent power shortages.<sup>29</sup>

#### **1.2.4 Tools for mapping and sharing information**

A number of projects have developed or adapted technology to address the under-reporting of cases of violence against women. One of the pioneers of this type of intervention is HarassMap,<sup>30</sup> a volunteer-based social initiative founded in late 2010 to tackle the issue of sexual harassment in Egypt.

The project makes use of multiple technologies, including an online interactive map,<sup>31</sup> social media and mobile phones, to map incidents of sexual harassment and to mobilise community members to speak out about harassment locally. It compliments these efforts with national-level campaigning and marketing, both online and offline, to breakdown gender stereotypes and promote zero tolerance of sexual harassment.

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<sup>24</sup> <http://chayn.co/>

<sup>25</sup> <http://www.worldpulse.com/en/get-involved/take-action/voices-against-gender-based-violence>

<sup>26</sup> <https://www.apc.org/en/projects/digital-storytelling>

<sup>27</sup> <http://mediamattersforwomen.org>

<sup>28</sup> Hayes, C. (2014)

<sup>29</sup> *Ibid*

<sup>30</sup> <http://harassmap.org/en/>

<sup>31</sup> The map makes use of geographic information system (GIS) and SMS technologies to record where incidents of harassment occur across the country. Individuals that either experience or witness sexual harassment are able to anonymously submit reports directly through the web interface, through Facebook or Twitter, or by sending an SMS using the short code 6069. Additionally, the Map documents the scope and seriousness of the problem by publicizing actual stories of harassment that have been submitted. In turn, those who submit their stories of harassment receive critical information on psychological and legal services. Map reports and information are displayed via an open source platform to allow Egyptians to obtain information about sexual harassment and support those who are harassed in their neighbourhoods. [http://harassmap.org/en/wp-content/uploads/2013/03/Towards-A-Safer-City\\_full-report\\_EN-.pdf](http://harassmap.org/en/wp-content/uploads/2013/03/Towards-A-Safer-City_full-report_EN-.pdf)

The technology has enabled the initiative to reach women and men in all parts of the country, including some of the most remote rural areas, and to bypass some of the social taboos about speaking out about violence. Research conducted by HarassMap in 2014 highlights the potential value of crowdsourcing as a data collection tool, with many users encouraged to share explicit details they might feel uncomfortable sharing in face-to-face interviews.<sup>32</sup>

### **1.2.5 Other emerging tools**

New technologies, and new applications for existing technologies are also emerging all the time to play a role in tackling GBV. For example, electronic tagging and GPS surveillance are being used to help control perpetrators of violence against women that have been issued with a restraining order by the courts.<sup>33</sup> This technology alerts police to a potentially violence encounter between a couple, and can also act as a deterrent to perpetrators.

Gamification, the concept of game mechanics and game techniques to engage and motivate people for a specific goal, which has already been widely applied in marketing, is now starting to be used in the prevention of GBV as a tool to educate and challenge behaviours and stereotypes that contribute to gender-based violence.

For instance, the Canadian organisation, Metrac, has developed a number of games and quizzes to educate and encourage action to tackle violence against women and youth. One example is its online video game, RePlay, which aims to promote healthy relationships amongst youth aged 8 to 14, and has been adapted for use with students in Vietnam.<sup>34</sup>

The use of visuals, graphics and interactive components potentially offer creative new ways to engage a range of audiences, but as with most of these technologies, there is, as yet, a lack of evidence of their efficacy in addressing GBV (see section 1.3.3).

## **1.3 ICTs & GBV: challenges and opportunities**

As section 1.2 highlights, ICTs initiatives to tackle GBV vary considerably in the types of context in which they're operating and the nature of the technology-based solution they employ, which can make it challenging to draw meaningful comparisons between different projects. Nevertheless, a review of the limited literature available and of practice-based insights on this issue points to a number of potential challenges, but also opportunities for technology-based solutions to GBV.

### **1.3.1. Gender equality issues & ICTs**

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<sup>32</sup> Fahmy, A et al. *Sexual Harassment in Greater Cairo: Effectiveness of Crowdsourced Data*, HarassMap, 2014

<sup>33</sup> [http://ec.europa.eu/justice/gender-equality/other-institutions/good-practices/review-seminars/seminars\\_2013/vaw\\_en.htm](http://ec.europa.eu/justice/gender-equality/other-institutions/good-practices/review-seminars/seminars_2013/vaw_en.htm) and <http://www.telegraph.co.uk/news/uknews/law-and-order/11711286/Domestic-abusers-to-wear-GPS-tracking-devices.html>

<sup>34</sup> <http://www.metrac.org/gamesandapps/>

On the one hand, technology has the potential to play a key role in challenging unequal power relations, a key driver of GBV. Extending the benefits of mobile phone ownership to women, for instance, can help to transform the lives of women from low and middle-income countries by increasing their independence, ability to earn an income and promoting their safety.<sup>35</sup>

However, in reality, women and other marginalised groups still face significant barriers in access to ICTs, such as low literacy levels, a lack of ICT training and support, the prohibitive cost of many ICTs, their lack of mobility and free time, and cultural norms which proscribe women's behaviour and interests. As a result, they are far less likely to own a mobile phone or use the internet than men.<sup>36</sup>

Beyond questions of access, other concerns about the internet and new media from a gender perspective include: the inadequate representation of women's viewpoints, interests and knowledge; gender stereotypes and sexist language are widespread; control of and representation in the ICT industry is dominated by men; and the prevalence of technology-related violence against women.<sup>37</sup>

The Association for Progressive Communications (APC) has been working since 2005 to document, report, monitor and analyse technology-related violence against women. The most common cases they have documented are: cyberstalking, sexual harassment, surveillance and the unauthorised use and manipulation of personal information including images and videos. The organisation found that while these violations are increasing, women and girls who fall victim do not know what to do to stop the abuse, what charges they can report, who they should report to and what help they can get. In many countries policies, regulations or services that respond to these new forms of violence do not exist or are inadequate. It has designed a range of tools to support women to document and respond to tech-related violence, including country maps for reporting cases,<sup>38</sup> a digital security first aid kit for human rights defenders,<sup>39</sup> and a set of feminist principles of the internet to inform work on gender and technology and influence policy-making on internet governance.<sup>40</sup>

If new technologies are to be used as instruments for tackling GBV, it's important that these gender concerns with ICTs are taken into consideration when designing solutions. As a minimum, technology-based solutions should respect user's confidentiality, security and privacy, and avoid reinforcing and disseminating messages that help to normalise unequal gender norms, roles and behaviours.

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<sup>35</sup> A 2010 survey by the GSMA Development Fund and the Cherie Blair Foundation found that extending the benefits of mobile phone ownership to women can transform the lives of women in the global south.<sup>3</sup> Of the more than 2,000 women surveyed from four low- to middle-income countries (Bolivia, Egypt, India, and Kenya,) 41% of women reported increased income or professional opportunities as a result of owning a mobile, 85% reported higher independence, and 93% reported feeling safer because of mobile phone ownership

<sup>36</sup> A 2012 report by Intel Corporation and Dahlberg Global Development Advisers found that women in low and middle-income countries are up to 37% less likely to own a mobile phone than men. Furthermore, compared with men in these countries, 25% fewer women use the internet.

<sup>37</sup> For a comprehensive explanation of technology-related violence and related issues, see:

[http://www.genderit.org/sites/default/upload/end\\_violence\\_malhotra\\_dig.pdf](http://www.genderit.org/sites/default/upload/end_violence_malhotra_dig.pdf)

<sup>38</sup> <https://www.takebackthetech.net/mapit/>

<sup>39</sup> <https://www.apc.org/en/irhr/digital-security-first-aid-kit>

<sup>40</sup> [http://www.genderit.org/sites/default/upload/fpi\\_v3.pdf](http://www.genderit.org/sites/default/upload/fpi_v3.pdf)

### 1.3.2 Geographical uptake

The geographical uptake of technologies to address GBV has been very uneven to date: despite having the highest rates of GBV in the world and faster mobile growth than any other region globally, the use of these technologies in Africa remains very underdeveloped.<sup>41</sup> Many of the technologies developed also rely on the use of smartphones and the internet, which are not accessible for many people living in poverty.

Even the initiative implemented by Media Matters for Women in Sierra Leone (see section 1.2.3), which explicitly targets rural women and girls, found that the costs of purchasing basic memory cards for mobile phones can be prohibitive for many of the women and girls in the communities they target. It's clear much more investment in low-tech, accessible and cost-effective solutions is needed.

### 1.3.3. Assessing effectiveness and impact

Few interventions to prevent and address gender-based violence, particularly in low-income and crisis contexts, have incorporated robust systems to monitor and evaluate (M&E) their impact and, as outlined in section 1.1, the evidence base is weak. Common challenges associated with monitoring and evaluation of these initiatives include the difficulty of obtaining reliable data, the complexity of the different kinds of interventions (strengthening support services, raising awareness, policy and legal reforms, community mobilisation etc) and the very different social and cultural contexts in which they're implemented, the lack of adequate financial resources available for M&E, and the failure to measure long-term, as well as short-term impacts.

Add to this the difficulties of monitoring the impact of ICTs, because of their diversity and rapidly changing nature, and the picture becomes even more complicated. Most research conducted into the impact of ICTs for development has found positive effects in the impact areas investigated.<sup>42</sup> However, research has not focused so much on the negative impacts, which tend to be indicated by anecdotal evidence. Again, there is relatively little evidence from developing countries and indications that findings in respect of developed countries may not apply to developing countries.<sup>43</sup>

A 2013 assessment<sup>44</sup> of a technology-related intervention to improve sexual and reproductive health in Uganda underlines how important it is to conduct robust evaluations. At first glance, the initiative, which involved launching an SMS-system that invited young women and men in Uganda to send questions on sex matters to a toll-free number and receive answers, appeared to be successful. But an impact

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<sup>41</sup> Burns, C. cited in Hayes, C. 2014

<sup>42</sup> Issues Paper on Measuring the Impact of ICTs for Development, UNCTAD, 2010

<sup>43</sup> Ibid

<sup>44</sup> <http://www.nber.org/papers/w19107>



assessment, based on a randomised control trial, suggests the initiative resulted in negative impacts on the sexual risk-behaviour of youth.<sup>45</sup>

While RCT remains the most scientifically rigorous method of hypothesis testing available, they may not always be appropriate in all contexts, and may present certain challenges when evaluating the efficacy of mobile interventions.<sup>46</sup> Mixed methods that combine quantitative and qualitative data collection may be better suited to assessing some GBV interventions. Either way, it's important that the evaluation of these technologies keeps pace with their deployment.

ICTs can themselves offer new ways of collecting data. Data collection and monitoring and evaluation through mobile apps are rapidly taking over traditional methods of collecting and using information – and some of the results are very encouraging. For instance, many applications and agencies working in agriculture development have seen positive results from using ICT-enabled tools in their data collection.<sup>47</sup>

'Big data'<sup>48</sup> initiatives, which utilise new, digital data sources to inform projects and programmes in international development, also have the potential to improve data collection and analysis in the area of GBV. In collaboration with UN Global Pulse, UN Women, and individual academic researchers, Data2X<sup>49</sup> is spearheading research that analyses cell phone data usage patterns to infer women's socioeconomic welfare, mobility patterns and financial activity. The project also plans to use remote sensors to reveal epidemiological trends and provide information on women's access to services that can help guide policies on GBV.<sup>50</sup>

Another initiative, GirlHub, is making use of Sensemaker, a narrative-based research methodology that makes use of unique software applications to enable the capture and analysis of a large quantity of stories in order to understand complex change in girls lives in Ethiopia and Rwanda. Respondents conduct the primary analysis of their own stories, greatly reducing the potential for interpretive bias and encouraging stakeholder involvement.<sup>51</sup>

Given the range of ICT and GBV interventions emerging, there appears to be an urgent need to: debate statistical standards and M&E tools that could be useful; accelerate capacity-building for the production of relevant impact data; and allocate sufficient funds to undertake robust assessments of these initiatives.

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<sup>45</sup> <https://undp.unteamworks.org/node/517216>

<sup>46</sup> One challenge of evaluating the efficacy of mobile interventions via RCTs is the choice of a comparison condition. One solution is to develop or use a minimal-contact version of the low-tech intervention (e.g. a self-help book or non-interactive web-pages) as the comparison condition. <http://iom.nationalacademies.org/Reports/2012/Communication-and-Technology-for-Violence-Prevention.aspx>

<sup>47</sup> In Central African Republic, Catholic Relief Services used barcoded ID cards to track beneficiaries, vouchers, and vendors' sales at seed fairs. They saw a number of benefits, including a reduction in the time it took to run a seed fair (time reduced from 6 to 3.5 hours) as well as the staff required to manage the fair. For other examples, see: <http://www.fao.org/docrep/017/aq003e/aq003e.pdf>

<sup>48</sup> <http://inno4dev.org/content/page/methodologies>

<sup>49</sup> <http://data2x.org/>

<sup>50</sup> [http://data2x.org/wp-content/uploads/2014/11/Data2X\\_MappingGenderDataGaps\\_FullReport.pdf](http://data2x.org/wp-content/uploads/2014/11/Data2X_MappingGenderDataGaps_FullReport.pdf)

<sup>51</sup> Using SenseMaker to Understand Girls' Lives, Lessons Learnt from GirlHub, May 2014

### 1.3.4 Inclusive approaches

The development of ICT interventions has brought new actors, such as technology developers, mobile phone companies and internet firms, to the field of gender-based violence, many of whom bring limited understanding of the issues of power and inequality that underpin the use and uptake of technology-based solutions.<sup>52</sup>

GBV experts have underlined the importance of ICT and GBV experts working together closely to ensure their interventions are conceived and delivered in a way that enhances, rather than compounds the issues they are trying to tackle (see section 1.2.3). Engaging the end user in every stage of the process, from concept to completion and evaluation, is crucial, not only to ensure ownership, but also to promote sustainability and challenge assumptions made in the design of the project about what works and why.

The growing trend for holding 'hackathons'<sup>53</sup> to catalyse the development of technology-solutions for a whole range of development issues, presents both an opportunity and a challenge in this respect. Social enterprise, Chayn, has organised a number of hackathons to address GVB and social justice issues. It cautions against the rush to develop technologies without understanding first who the technology is trying to enable, what their needs and barriers are, and how they can be enabled to engage with other actors to build solutions for themselves and their community.<sup>54</sup>

### 1.3.5 Sustainability and scale

Organisations interviewed for the 2014 research study say that funding is central to the question of the sustainability of any work on GBV, and interventions that make use of ICTs are no exception. A number of organisations reported receiving new sources of funding as a result of incorporating technologies into their work. For instance, a number had benefitted from pro-bono support from technology providers and/or funding via the corporate social responsibility funds of private companies.<sup>55</sup>

However, despite the interest of new actors in this area, most felt this had yet to translate into additional and sustained funding for their work on GBV.<sup>56</sup> They also pointed to the costs and technical challenges inherent in developing and using new technologies as a potential barrier to the sustainability of ICT interventions in this area, although for the most part technology costs were frontloaded during the start-up phase and diminished thereafter.<sup>57</sup>

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<sup>52</sup> Hayes, C (2014)

<sup>53</sup> Hackathons are events where a group of ICT developers, designers and programmers come together at a specified venue and work together in teams to collaborate on projects. Organisers often provide prizes or awards to the team or teams that come up with the best solution or idea.

<sup>54</sup> Interview with Hera Hussain, Chayn, November 2015

<sup>55</sup> Hayes, C (2014)

<sup>56</sup> *Ibid*

<sup>57</sup> *Ibid*

To date, very few ICT-focused solutions to address GBV have been scaled, and efforts to scale mobile and other technologies more broadly for development and make them sustainable have largely failed.<sup>58</sup> This is typically because the evidence of impact is insufficient, follow-on funding is not available, or suitable partnerships have not been found to carry forward the work, all factors which need to be given consideration from the outset of developing an ICT intervention.<sup>59</sup>

UNDP<sup>60</sup> and others<sup>61</sup> have developed guidance to help organisations think through some of the implications involved in scaling ICT and other innovations. It is also important to recognise that sometimes scaling will not be appropriate; and discontinuing work may actually be a critical part of innovation.<sup>62</sup>

## **Part two: How is UNDP using ICTs to address GBV?**

### **2.1 UNDP's Innovation for Development work**

UNDP has been driving innovation in the development field for several years. To steer this agenda, the organisation established an Innovation Team with dedicated staff across UNDP, and in June 2014 launched an Innovation Facility<sup>63</sup> with support from the Government of Denmark. The Facility provides seed funding and technical support for country offices to test out innovative solutions to development problems and to partner with new and non-traditional actors.<sup>64</sup>

Initiatives supported by the Innovation Facility have included a number of technology-related interventions, from mobile feedback mechanisms, to gamification, crowdsourcing and hackathons, to solve a wide range of development challenges.<sup>65</sup> Several of these ICT initiatives have had a focus on finding solutions to gender-based violence (see 2.2 below).

But while technology is seen as an accelerator of innovation, it is not the only driver of UNDP's innovation work. It places an emphasis on ensuring 'end-users' of development services are at the heart of finding and designing solutions. 'End-users' are people affected by development challenges who are not seen as beneficiaries of development interventions, but individuals and groups who have the ability to design solutions to their problems. UNDP's innovation work involves supporting 'innovation labs' that incubate and test user-driven innovations as well as behavioural science trials to create better coherence between public services and

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<sup>58</sup> <http://www.ictworks.org/2013/08/28/m4d-mobile-for-development/> and [http://csis.org/files/publication/150929\\_Zheng\\_BridgingDigitalDivide.pdf](http://csis.org/files/publication/150929_Zheng_BridgingDigitalDivide.pdf)

<sup>59</sup> Interview with Benjamin Kumpf, Policy Specialist for Innovation, UNDP and August 2015 blogpost: <https://oxfamblogs.org/fp2p/how-do-we-get-better-at-killing-our-darlings-is-scale-best-pursued-oblighely-more-thoughts-on-innovation-and-development/>

<sup>60</sup> <https://www.unteamworks.org/node/517218>

<sup>61</sup> See, for example, mHealth's checklist of considerations for scaling up mobiles for health interventions: <http://solutionscenter.nethope.org/blog/view/mhealth-adding-up-the-issues-in-scaling-up>

<sup>62</sup> *Ibid*

<sup>63</sup> <http://www.undp.org/content/undp/en/home/ourwork/development-impact/innovation/resources-for-innovation.html>

<sup>64</sup> <http://www.undp.org/content/undp/en/home/ourwork/development-impact/innovation.html>

<sup>65</sup> <http://inno4dev.org/>

citizens' choices, and big data analysis to inform policies and services.<sup>66</sup>

## 2.2 Key learning from UNDP's work

To date, UNDP has made limited use of ICTs in programmes to address GBV, although a number of approaches piloted under its Innovation for Development seed funding are exploring ways in which these tools can be used to address GBV and other development challenges.

The following case studies highlight some of these initiatives, and the learning they are generating.<sup>67</sup> A number of key points emerge from the case studies:

- UNDP adds value to these types of interventions by acting as a connector bringing together different actors, providing a policy platform and leverage to raise the issues with government, and acting as a funder and a source of technical support to partner organisations.
- Technical solutions benefit from being part of wider initiatives to tackle GBV and should be used alongside other methods, such as awareness-raising and outreach, to be most effective.
- Technology can offer a means to reach out to people and groups that may be typically excluded from development processes, but consideration needs to be given to issues of access - offline as well as online solutions may need to be made available, for instance.
- Monitoring and evaluation of ICT-solutions to GBV is a major challenge and programmes would welcome guidance, tools and support to enable them to integrate measures to monitor the effectiveness and impact of these solutions.
- Involving the end user from the outset of the approach is necessary to ensure the technology meets and responds to their needs.

### 2.2.1 Using mobile phones to report domestic violence in India <sup>68</sup>

#### Context

Violence against women is widespread in India and much of it – domestic violence, dowry deaths, acid attacks, honour killings, rape, abduction and cruelty – is perpetrated by family members. Data from the National Crime Records Bureau shows that an Indian woman is most unsafe in her home: 43.6% of all crimes against women are by husbands and relatives. <sup>69</sup>

<sup>66</sup> <http://www.undp.org/content/undp/en/home/ourwork/development-impact/innovation/>

<sup>67</sup> A comprehensive review of learning from non-GBV focused ICT initiatives was not possible within the scope of this project, but it is something that UNDP should consider exploring further in future to enhance both GBV and non GBV-focused interventions.

<sup>68</sup> The main sources for this case study include interviews with Ernest Noronha, Policy Analyst, HIV, Health and Development, Asia-Pacific Regional Centre (formerly UNDP India) and Dr Nayreen Daruwalla, Director of the Programme on Prevention of Violence against Women and Children, SNEHA (Society for Nutrition, Education and Health Action), and a report submitted to UNDP India by SNEHA, A Model of Intervention and Prevention for Recognition of and Action on Gender-Based Violence

<sup>69</sup> <http://www.theguardian.com/global-development/2015/jun/02/phone-app-challenging-violence-against-women-mumbai-slum-dharavi>

**Domestic abuse is pervasive** in Dharavi slum, Mumbai, which is home to more than 700,000 people and one of Asia's largest slum settlements. The problem is compounded by deprived and compromised living conditions in Dharavi and financial constraints and neglect, thus making women more vulnerable to abuse and violence. Patriarchal norms also perpetuate the notion that **violence is something to be suffered in silence.**

### **Project approach**

Mumbai-based non-governmental organisation SNEHA (Society for Nutrition, education and Health Action) has worked with women survivors of violence in Dharavi since 2001. During this time it has seen an increase in the cases of violence, but very low numbers of these cases actually being reported, largely due to the lack of a support structure and societal norms that force women to keep quiet.<sup>70</sup>

In 2014, SNEHA partnered with UNDP India on the 'Little Sister' project, an 18-month initiative **aimed at increasing the reporting of cases of violence.** A key aspect of the project involved training and equipping women volunteers from the community, known as 'sanginis', **with low-budget cell-phones loaded with an app** that could be used to report, track, map, and improve the response coordination of incidents of violence.

The android smartphones were loaded with an open data kit (ODK) form<sup>71</sup> and an Indian personal safety app called EyeWatch. EyeWatch's inbuilt audio/video/image support enables the user to send images, videos and sound bytes along with the location in SOS alerts.<sup>72</sup>

It has a built-in alert system that automatically notifies and calls a pre-specified contact for help. In addition, survivors receive inconspicuous text messages to help report and track repeat violence, and have a free helpline number to call.<sup>73</sup>

Once the app is activated and an alert has been raised, a call goes through to a SNEHA member of staff who can offer assistance. Survivors can access counseling, if appropriate, at SNEHA's centre, and can also get support in the community from the sanginis and SNEHA's team of community organisers, who oversee the work of the sanginis. The system allocates each survivor a unique I.D. number to preserve their anonymity, but also make it easier to track the support they access and any further incidences of violence. Their details are stored in a central database maintained by the NGO.

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<sup>70</sup> Dr Nareen Daruwalla, cited in The Guardian online, Global Development, June 2015 <sup>70</sup> <http://www.theguardian.com/global-development/2015/jun/02/phone-app-challenging-violence-against-women-mumbai-slum-dharavi>

<sup>71</sup> Open Data Kit (ODK) is a free and open-source set of tools which help organisations author, field, and manage mobile data collection solutions e.g. to build a data collection form or survey, collect the data on a mobile device and send it to a server and aggregate the collected data on a server and extract it in useful formats. <https://opendatakit.org/>

<sup>72</sup> <https://www.eye-watch.in/Pnf.action>

<sup>73</sup> The Dissemination of the Convergence Model on Addressing Gender-Based Violence in Informal Urban Settlements: A Report, SNEHA, Mumbai, March 2015

The technology-based intervention is **part of a broader, on-going programme** of work by SNEHA to address violence against women and girls that also includes counselling and crisis intervention services, prevention work with communities, work to strengthen and reform public systems, such as the response of the health, police and legal system to cases of violence, advocacy and work with perpetrators of violence. This model of intervention and prevention of violence has evolved from SNEHA's own understanding of successes and failures in exploring different strategies to address gender-based violence.

### **Progress and results**

The project trained 200 sanginis to identify and report incidents of gender violence and the use of the technology has led to a **big increase in the number of cases of domestic violence being reported**. Prior to the project commencing, around 200 cases were identified and reported by the sanginis over a ten-month period. Once the technology was introduced, the number of cases reported in an equivalent period rose to 900.

On average each sangini reported between 25-40 cases per month. Around 75% of these incidents occurred in the home at the hands of the husband or other family members.

But while the number of cases reported to SNEHA increased dramatically, data collected from July to December 2014 showed that of the 345 cases SNEHA analysed, **only 19 percent were reported to the police**. For this reason, the NGO continues its work to sensitise police and other public-service providers on the needs of survivors. Through its outreach programme it has already trained 4,500 police officers and cadets in Mumbai on how to handle cases and more than 2,100 public hospital staff to help them identify evidence of violence among patients. It is hoped these efforts will increase women's confidence in using these services.

Last year the project won the Vodafone Foundation Mobile for Good Awards 2014 in Delhi and received 1.2 million Indian rupees of funding and mentoring support from NextGen to expand and upscale their capacity, improve project monitoring and enhance impact evaluation of the project.<sup>74</sup>

Part of this process has involved revising the app based on feedback from users to make it more streamlined and easier to use. In September 2015, Little Sister rolled out its customised integrated application that combines the ODK function with an emergency alarm system. This allows the Sangini to contact their supervisor (the community organisers), the local police station, and ambulance facilities in case of an emergency.

One of the most unique features of the new application is map function in the server that allows SNEHA to see the occurrence of violence happening in real time. Every time an alarm is raised on the Sangini's phone, it shows up on the map on the server. The admin function also allows the organisation to assign cases to counsellors and

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<sup>74</sup> <http://www.snehamumbai.org/events/newsarticleview.aspx?NewsArticleId=222&NewsType=1>

hence **monitor the progress of the client** from the minute she reports an incident of violence, to the time she seeks counselling, and her progress thereafter.

SNEHA is also considering ways in which the technology could potentially be adapted for use by public service providers so that cases can be documented more systematically across the different support services. In the long-term it would also like to see the technology turned into an opensource application that can be used by the whole community.

There has been no independent external evaluation of the project, but the model and lessons learned have been shared with a municipal corporation of Bangalore City that is considering adapting it for its own context.

### **Lessons learned**

- The sanginis or female volunteers come from and live in the communities targeted by this initiative. They have already been through **intensive training on gender equality and women's rights**, the law on GBV, counselling and how to bring about change in their own lives. The fact they are experienced and trusted in the communities enables them to win the confidence of women survivors more easily than an outsider, such as a police officer. They also understand the law and can work with police in their local area to close the gap between the law and how it is implemented in practice. They are encouraged to work in groups and receive a lot of back-up from SNEHA to ensure they are not putting themselves at risk through their work.
- The technology has helped SNEHA to crowdsource cases of violence, track incidents of repeat violence and understand more about the prevalence of violence in Dharavi, which is an important part of prevention. But while women are now reporting more violence to the NGO there is an ongoing challenge of encouraging them to report to the authorities to ensure perpetrators are brought to justice. A lot of the women whose cases were documented by the sanginis did not want the case to go any further. It's therefore **important the technology is not used in isolation** from other efforts to improve support services and change attitudes in the target communities. SNEHA believes increasing reporting without ensuring there is appropriate support available for women would have been irresponsible.
- **UNDP's added value** in this project was to help SNEHA consolidate its work on GBV into a more integrated response, bringing together the services it offers survivors in hospitals, with its work in the communities, such as support to women's self-help groups and street play and structured discussions with men and youth, and to improve legal assistance and medical help to survivors. It also provided SNEHA with a policy platform to debate the issues with the government.
- **The technology is very cheap**: it cost less than US\$20,000 to adapt the software that already existed and customise it to be used through an NGO-led model. The developers considered the user's needs and, with their input, adapted it for a bystander or witness to an incident to use the technology. With sufficient training and support, SNEHA believes there is the potential for

it to be used by a whole range of volunteers, not only the sanginis, to document and reports cases of violence.

- **Monitoring and evaluation has been a major challenge** of the project. The technology has allowed SNEHA to collect quantitative data more systematically, but demonstrating the difference in women's lives is much harder. The initial version of the app did not look into user engagement or effectiveness, but an upgraded version will measure effectiveness in identification, reporting and follow-up of cases through a self-evaluated checklist. The team is also developing intermediate indicators to set up a more systematic way to monitor and evaluate the Little Sister project. SNEHA has a repository of qualitative data collected from the narratives of women who visit the centre for counselling and other support.

### **2.2.2 Using online games to challenge gender stereotypes and change discriminatory attitudes<sup>75</sup>**

#### **Context**

Gender-based violence is a major challenge in Nepal: according to a 2012 study by the Government of rural women's experience of violence, close to half of women surveyed (48%) reported experiencing violence in their lifetime, and over a quarter had experienced violence in the last 12 months.<sup>76</sup>

Since **traditional notions of masculinity** are thought to be a contributing factor in gender-based violence, UNDP Nepal and the civil society organisation, MenEngage, commissioned research in 2014 to explore the underlying reasons for men's engagement in violence and the linkages between gender identities and the use and/or tolerance of violence.<sup>77</sup>

The research highlighted the way deeply ingrained social norms and expectations concerning masculinities and femininities profoundly influence Nepal's socio-cultural and legal institutions and culture. It recommended, amongst other things, the adoption of **more initiatives to transform traditional perceptions of masculinities** and promote tolerance and non-violent attitudes.<sup>78</sup>

#### **Project approach**

Drawing on the findings of this report, UNDP Nepal developed and implemented a pilot project between July and December 2014 to encourage young women and men to consider the social impact of gender stereotypes and fixed ideas about masculinity and femininity. The project, known as *Kasto Purush Kasto Nari* (What if Men and Women Changed Places for a Day), involved the development of a

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<sup>75</sup> The main sources for this case study include an interview with Sachchi Ghimire Karki, Programme Analyst, Governance and Rule of Law Unit, UNDP Nepal, the UNDP Innovations website (<http://inno4dev.org/campaign/detail/3513>) and a final project report by UNDP Nepal: '*Kasto Purush, Kasto Nari: A Successful Prototype in Battling Gender Stereotypes*'

<sup>76</sup> A Study on Gender-Based Violence Conducted in Selected Rural Districts of Nepal, Nepal, 2012: <http://asiafoundation.org/publications/pdf/1164>

<sup>77</sup> Nepali Masculinities and Gender-Based Violence, Uprety, S. et al, May 2014

<sup>78</sup> *Ibid*



**Facebook application that included short animated videos** <sup>79</sup> highlighting various forms of gender-based violence and gender inequality, albeit with typical male and female roles reversed. Users were then asked to participate in a **simple quiz to test their responses** to the content of the videos.

Technology and gender-based violence experts, along with young people, including high school students between the ages of 13-19 years from Kathmandu Valley, were all involved in the initial project design and testing. Nepal tech company, the Noah's Ark animation company, and the University of Chicago Gaming Lab, were responsible for the design of the product. UNDP also worked with the media to disseminate the Facebook page as widely as possible.

The project formed part of a wider initiative by UNDP and the Ministry of Home Affairs, the Armed Violence Reduction and Strengthening Community Security (AVRSCS) project, which aims to address the root causes of community insecurity and prevent further violence. <sup>80</sup> It cost around US\$20,000, with funding from UNDP's Innovation Fund.

**Basic monitoring was built into the development of the app** so that UNDP and partners were able to monitor uptake of the game, but not user-engagement or behavioural change, although the AVRSCS project does measure this as part of other initiatives, such as a long-running radio programme in rural communities.

### **Progress and results**

Over 570 young people participated in the social media quiz game and the project received very positive feedback from the young people that used it:

- The app received over 40,000 likes on UNDP's Facebook page
- 80% of the Facebook users said they found the video interesting and would share it with friends and families
- 86% of the Facebook users said the animated videos prompted them to think about the often invisible/ignored forms of violence in their communities
- 85% of the respondents who watched the animated videos said they would change their behaviour based on the understanding of the traditional roles of men and women

UNDP and the Ministry of Home Affairs have since sought to **integrate the videos into other project activities**. For instance, through the Ministry of Home Affairs, the police have adopted the video and the game for use with school children. There are ambitions to turn the videos into a T.V series in order to reach a much broader audience, but this proposal has not attracted a great deal of donor interest as yet. UNDP Sri Lanka and Vietnam have also been inspired to develop similar initiatives.

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<sup>79</sup> An example of the animation can be found here: <http://www.asia-pacific.undp.org/content/rbap/en/home/ourwork/development-impact/innovation/projects/nepal-addressing-gender-based-violence.html>

<sup>80</sup> [http://www.np.undp.org/content/nepal/en/home/operations/projects/democratic\\_governance/avrscs/home.html](http://www.np.undp.org/content/nepal/en/home/operations/projects/democratic_governance/avrscs/home.html)

There are now plans to design another project to engage a younger age group, building on the learning from this initiative. Users will be able to play the game online and offline and they will be given individual scenarios to navigate. The aim is to involve school-teachers in monitoring the intervention, so that shifts in behavioural change amongst young people as a consequence of this initiative can be observed more closely. UNDP is seeking to **develop new partnerships** with UNICEF and the Private Boarding Schools Association to test and implement the innovation.

### Lessons learned

- Online and viral apps can be a very cost-effective way of raising awareness about GBV issues since much of the promotion can be done through online advertising, much of which is free.
- It seems unlikely that one of the project objectives – to turn young people into ‘agents of change’ – was met as the result of a one-off intervention, and the lack of robust monitoring means it’s difficult to assess whether young people followed up on their commitment to share the learning from the video with the family and friends. The project monitored how many people were reached, but to measure changes in behaviour will **need a more rigorous approach to monitoring** in future.
- Social media apps can potentially become an important part of GBV behavioural change campaigns, particularly amongst young people, since they offer a fun and accessible way for participants to understand complex issues. They also **provide a means to reach out to and include people, in this case young people, who may typically be excluded** from development processes.
- UNDP has a **strong partnership with the Ministry of Home Affairs**, which enabled it to leverage buy-in and support for this project. It was able to mobilise various interest groups to drive the project, from young people to gender and technology experts. It was also able to create a space for innovation.
- Social media attention is short-lived, so it’s really important that initiatives like this are **linked to existing interventions** to ensure any tools or materials developed can be re-used or adapted for use in other projects.
- Recognising that many people living in rural areas do not have reliable access to social media, UNDP Nepal and the Ministry of Home Affairs have sought to **make use of the video off-line**. For instance, the video is now shown to young people in schools and to people in communities using a mobile video van with a screen and projector, followed by discussions about the issues raised in the videos. There are also plans underway to develop a board game that can be used to prompt similar discussions around gender stereotypes and gender-based violence.

### 2.2.3 *Phones against Corruption in Papua New Guinea*<sup>81</sup>

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<sup>81</sup> The main sources for this case study include an interview with Tito Balboa, Chief Technical Specialist with the Provincial Capacity Building and Enhancement Programme (PCaB) (jointly funded by Australia and UNDP), and *Phones against Corruption: Preliminary Findings of User Experience Research, Paper for presentation at 2015 PNG Update*, UPNG, Port Moresby, June 2015

## Context

Corruption is a pressing issue in Papua New Guinea (PNG): the country features 144th out of 175 in Transparency International's Corruption Index and is in the lowest 15% of countries dealing with corruption according to the World Bank's Global Governance Corruption Index.<sup>82</sup> **Most citizens in PNG do not know where and how to denounce corruption** and often fear violent retribution if they do report it.<sup>83</sup>

## Project approach

In 2014, UNDP, in partnership with the governments of Australia and PNG launched 'Phones Against Corruption' to provide a confidential mechanism based on mobile messaging for reporting corrupt practices.

While the rate of mobile broadband penetration remains low in PNG at barely 4%, the mobile phone rate stands at more than 40%. For this reason, the programme uses text messages, or SMS, instead of a smartphone app, to maximise the reach of its audience. A private Australian company, Mobimedia Ltd, set up the platform and it uses a free number provided by the local phone operator, Digicel.

The mechanism has initially been trialled among 1200 staff of the Department of Finance (DoF). The process to report cases of corruption is simple: individuals are required to send a text message to this number and the system then prompts them, in their preferred language (either English or Tok Pisin), to provide details about where and when the case of corruption took place. Crucially, **all reports are anonymous** to protect the identity of those reporting.

Users receive feedback via SMS immediately after submitting a report. This includes generalised information about the number of cases reported, cases under investigation and news about arrests, but no specific questions about the case they've reported in order to protect their anonymity. If further evidence is needed to build up a case, officials will gather evidence directly from the province or district or public institution cited in the report.

All cases reported are then compiled in a database by an internal DoF team, which is responsible for investigating further. Well-founded reports with sufficient evidence lead to a criminal prosecution - currently around 4-5% of cases reported end up in court.

## Progress and results

*"Whistle-blowers have been living in fear, but Phones Against Corruption now gives us confidence to report misconduct."*<sup>84</sup>

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<sup>82</sup> <http://www.asia-pacific.undp.org/content/rbap/en/home/ourwork/development-impact/innovation/projects/png-phone-against-corruption.html>

<sup>83</sup> Ibid

<sup>84</sup> <http://www.asia-pacific.undp.org/content/rbap/en/home/ourwork/development-impact/innovation/projects/png-phone-against-corruption.html>

To date, the DoF has received 6000 SMS messages and 250 of them have been under investigation. This has resulted in two people being arrested for mismanagement of around US\$2 million and five corruption cases are currently pending court decisions.

There has not yet been an external evaluation of the project, but preliminary findings from research into user experience indicate positive results with over two thirds of respondents indicating they found the service easy and quick to use, 90% reporting they would be happy to use the service again and three quarters of respondents saying they felt confident action would be taken.<sup>85</sup>

The SMS system is now in its scaling up phase and there are plans to roll out the system to other government departments. The government is also setting up an Independent Commission against Corruption, which will be responsible for managing and responding to the data collected from messages in future. Ultimately it is hoped the system can be used to encourage members of the public to report incidents of corruption.

The pilot initiative, which was funded by UNDP's innovation fund, has twice won UNDP's RBAP Innovation Fund. It has also generated significant interest amongst other countries. For instance, the Australian-based SMS software provider, Mobimedia, has received requests from Bangladesh, Fiji, and other countries in the Asia-Pacific region, about possible replication in those countries in the near future.

## Lessons learned

- The **system's anonymity** is critical to protecting the identity of the informant since many people are deterred from reporting cases out of fear of retribution. Officials responding to reports of corruption do not know which or whose phone the report has come from, so they have no way of identifying the user. This feature is also important in interventions to encourage reporting of incidents of gender-based violence.
- **UNDP's value add** in this project has not only been to provide financial resources, but also technical support, from ensuring impartiality and due process are followed in investigations, to advising on the design of the Independent Commission.
- The SMS technology can be a useful tool in the **monitoring and evaluation** process. For this project, a survey using SMS was conducted alongside focus group discussions to gather information about user experience. One advantage of conducting a survey in this way is that it can reach individuals around the country at minimal cost. Users were given the option to participate in the user experience research immediately after they had reported a case of corruption. It was felt this would minimise user concerns about the anonymity of the service compared to sending out a bulk SMS to previous users soliciting their feedback. The approach of using SMS could be a disadvantage, however, if users find text messaging a challenge. The use of

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<sup>85</sup> 41 users responded to an optional series of SMS questions about their experiences of using the service, a sample of 15.5% of the total number of service-users during the period 18<sup>th</sup> April – 27<sup>th</sup> May 2015.

SMS also **did not preclude the need for some focus group discussions** to be held outside the capital Port Moresby, since access to communications and types of corruption vary in different provinces and it was important to gather the views of a range of respondents.

- **Involving users in project design** and follow-up is an important way of ensuring the technology is effective and easy to use. As a result of the initial user experience review, it was agreed that some changes would be made to the service, including the introduction of **regular awareness campaigns** about the service amongst staff in the DoF, arranging for the DoF to work collaboratively with relevant sections of other government agencies in order to investigate cases thoroughly, and an agreement that the service should not be extended to the public until it is functioning well in all government agencies. Users also reflected on the importance of having a robust system in place to respond adequately to corruption reports. It is hoped the establishment of the Independent Commission in 2015 will help to address this.
- This use of mobile technology can provide a **positive solution to the challenges that countries like PNG face with internet access and penetration**. It offers an interactive system of questions and answers that can be used in other types of reporting, such as **the reporting of cases of gender-based violence** or even the creation of a panic button through SMS. SMS can also be used for a range of applications, from reporting on project performance, to communicating in Disaster Risk Management, Relief and Humanitarian Operations, owing to its small data requirements, compared to the continuous and heavy data requirements of using a mobile phone for calls. SMS runs well where there is a 2G (GPRS) mobile network, although in countries where 3G and 4G is available apps may be better suited. However, this needs to be weighed up against the cost of internet services and the availability of internet and other technologies to the poorest sections of the population.
- The **use of crowdsourcing<sup>86</sup> to collect data** can be a cheap and rapid way to generate information or ideas from a large group of people, but there are disadvantages, in particular concerns around the reliability of the data. In this case, only 4-5% of the corruption reports generated were reliable and the human resources required to filter information were quite intensive. Overall though, as the user experience review confirms, the advantages have outweighed the disadvantages.

#### **2.2.4 Generating innovative solutions to address gender-based violence in Egypt<sup>87</sup>**

##### **Context**

Violence against women and girls is widespread in Egypt, both at home and in public spaces. For instance, the Demographic Health Survey for Egypt 2014 found that

<sup>86</sup> Soliciting contributions from a large group of people to obtain needed services, ideas or content

<http://www.merriam-webster.com/dictionary/crowdsourcing>

<sup>87</sup> The main sources for this case study include an interview with Gazbia Sorour, Innovation for Development team, UNDP Egypt Country Office and a report of a Youth Innovation Camp on Reporting Violence against Women, 1<sup>st</sup>-3<sup>rd</sup> February 2015, by UNDP Egypt, and a project initiation document for UNDP Egypt's 'Strategic Interventions to Combat Violence against Women' project.

three in 10 ever-married women aged between 15-49 years had experienced some form of spousal violence; one third of women who had experienced violence sought help with most turning to their families for support. There is evidence that cases of violence against women have increased in recent years.<sup>88</sup>

There are signs that reporting of incidents of violence against women is increasing, but **under-reporting**, due to a lack of confidence in the police and security institutions, and cultural norms that perpetuate the idea that women are somehow to blame, remains a major challenge.<sup>89</sup>

### **Project approach**

As part of an ongoing partnership with the National Council for Women (NCW), the government body responsible for the promotion of women's rights, UNDP Egypt, NCW and the Vodafone Foundation, organised an '**Innovation Camp**' in February 2015 to identify innovative solutions to the challenge of under-reporting of incidents of violence against women and girls.

For three days, a group of 35 young women and men between the ages of 18 and 30 with a range of expertise, including in the use of ICTs, worked collaboratively alongside a group of gender-based violence experts to analyse the root causes of under-reporting, to brainstorm potential solutions and finally to build low-cost prototypes to trial their ideas.

The workshop generated six potential solutions, of which the top three ideas were selected and taken forward.<sup>90</sup> Winning solutions received prizes and the opportunity to have their concepts developed into prototypes.

### **Progress and results**

The ideas of the three winners were integrated into one prototype with the support of GBV and ICT technical experts from Vodafone, UNDP and NCW. They include the development of an app to make it easier for women and girls to report incidents of violence by connecting them directly to service-providers, including the police and NGOs working to address GBV, providing them with clear guidance about what constitutes violence against women and a forum on which they can share stories and get support.

Mobile penetration is high in Egypt, but literacy rates are low in some parts of the country and the majority of people don't have access to a smartphone. For this reason, the group is also working with the NCW to **improve the hotline service they provide**. This includes shortening the existing eight-digit number to a more straightforward to use three-digit number, and providing tailored training for call-

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<sup>88</sup> [http://egypt.unfpa.org/Images/Publication/2010\\_03/6eeeb05a-3040-42d2-9e1c-2bd2e1ac8cac.pdf](http://egypt.unfpa.org/Images/Publication/2010_03/6eeeb05a-3040-42d2-9e1c-2bd2e1ac8cac.pdf)

<sup>89</sup> Egypt Violence against Women Study, USAID, 2009 [http://pdf.usaid.gov/pdf\\_docs/Pnadq891.pdf](http://pdf.usaid.gov/pdf_docs/Pnadq891.pdf)

<sup>90</sup> The three winning solutions were: Te2dary "You Can" - An interactive system made up of an online media campaign; a panic button connected to the police, NCW and emergency contacts; a virtual/anonymous support system utilizing chat and voice; a database for rights, existing reporting mechanisms and legal procedures; Balaghny Shokran "Report, Thank you" - An Unstructured Supplementary Service Data (USSD) reporting system; and Women Against Violence in Egypt (WAVE) - a comprehensive initiative including support units in public spaces, awareness campaigns connected to a hotline, in addition to messages on subsidized products, and a national day for ending VAW.

centre staff to ensure they respond to reports as effectively as possible. They are also investigating how USSD technology<sup>91</sup> can be used to simplify the way women connect to the hotline.

No monitoring and evaluation has been carried out as yet beyond gathering feedback from participants who took part in the Innovation Camp, but the group is currently considering ways in which they can integrate measurement into the design of the tool. The concept will also be tested with potential users before being developed further.

### Lessons learned

- Survivors of violence participated in the workshop, and storytelling and the creation of an 'empathy map' were used as tools to help participants understand their experiences and needs. Organisers agreed it would be important to involve a more diverse cross-section of survivors in future events, including women from different parts of the country, to ensure a range of perspectives and experiences are integrated into the design of the solution.
- It's important to factor in sufficient time for the Innovation Camps. This one lasted three days, but ideally would have been longer to reflect the time it takes for participants to develop a deeper and more nuanced understanding of the complexities of gender-based violence.
- ICTs should not be seen as the only innovative solution to the challenge of gender-based violence, particularly as they may only be available to certain sections of the population. UNDP Egypt has also been **exploring non-ICT based solutions**, including the development of a card game for children aged 11-15 years to educate them about gender equality and challenge gender stereotypes.
- Organisers are finding the **monitoring and evaluation of the effectiveness of these new technologies a challenge** and suggested the development of a matrix of measures might be a helpful tool to support them in thinking through how and when to assess the progress and impact of their concept. The inclusion of M and E experts with an understanding of monitoring the use of technologies on the Innovation Team's roster of technical experts could also be helpful in addressing this.
- **UNDP's role as a connector** bringing together different actors to test and scale these sorts of interventions is really important. For instance, another Innovation Camp to address the needs of people with disabilities resulted in UNDP Egypt linking up the winning team and relevant government body with a Social Entrepreneurship Incubator to develop the idea further.

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<sup>91</sup> Unstructured Supplementary Service Data operates much like SMS (Short Message Service) but SMS uses a 'store and forward' technique to deliver text messages whereas USSD information is sent directly from a sender's mobile handset to an application platform handling the USSD service.

- **Human-centred design tools** can add creativity to the process of building solutions to social issues, such as gender-based violence, and are important for building a sense of ownership of a project.

### Part three: How to plan for programming

Technology-based solutions to GBV are still in a nascent stage, fragmented, and face significant barriers to developing into a coherent, widely accepted and understood field. However, the learning highlighted in sections one and two points to a number of principles and approaches that could help to overcome some of these obstacles and inform UNDP's contribution to developing this next generation of global violence prevention and response tools:

- To use new technologies as instruments for *transformation*, it is important to look into existing gender issues in ICTs in order to formulate and implement strategies for tackling GBV that enhance women's empowerment. As a minimum, interventions should do no harm, protect the privacy and security of women and girls and avoid reinforcing harmful gender roles that contribute to GBV. This approach requires being aware of the possible limitations of ICTs and recognising they may be used to cause harm as well as promote good.
- Due consideration needs to be given when designing interventions to issues of access and control over ICTs, the digital divide and who this impacts upon most. This may be characterised by gender, community, ethnic, economic or age groups. Factors such as literacy, content, cultural relevance and community needs also need to be addressed. More research and investment is particularly needed in the development of low-cost, low-tech, accessible solutions.
- The user needs to be involved meaningfully in all stages of product development, testing, implementation and evaluation. More detailed learning and analysis is needed of how the perspectives of end users are included in ICT solutions to GBV.
- The majority of technology-based GBV solutions developed to date have focused on *responses* to GBV, in particular addressing under-reporting, mapping incidents of violence and emergency response mechanisms. There's potential for more research into how technology-based solutions could enhance the *prevention* of GBV. For instance, how can the power of social media platforms or the incentives and critical thinking fostered by game dynamics help to engage the public and foster new forms of public participation and cooperation on GBV issues? More work is needed to explore how technologies can enable us to accelerate progress in finding viable solutions and effective strategies to complex social issues, such as GBV, that are effective in low resource environments.
- For online-based interventions, leverage the expertise from data professionals to monitor the user engagement with the content and adapt the design and messaging of the programmatic content based on the analysis of the user-engagement.



- The answer is not necessarily an app!<sup>92</sup> Programming should take inspiration from other areas of innovation, such as how marketing and behavioural insights could strengthen preventative messaging, rather than assuming ICTs are the best way to achieve your GBV (or other development) goal.
- Build the evidence base for these tools and the lessons learned. Develop a matrix of proposed changes, indicators and targets that could be used and adapted for different ICT and GBV interventions, ensure M&E is sufficiently costed and built into the design from the outset, and make technical support available to support this process and ensure approaches meet standards for evidence. Consider how ICTs could play an enabling role in data collection.
- Factor in sustainability and potential scaling from the outset. This needs to include collaborating and engaging with a wide range of partners, focusing on solutions that have low costs if possible, and considering the need for a longer-term perspective, as it's likely to take time to trial and refine the intervention. UNDP should design a scaling pathway and identify who should take on the long-term (financial responsibility) of the intervention i.e. the Government, private sector actors or NGOs. UNDP should deliberately bring these actors together to ensure the scaling, but also bring together different expertise areas.

**For further information on UNDP's Innovation work and to connect with a larger network of innovators and experts in this area, please contact the Innovation Team: [innovator.support@undp.org](mailto:innovator.support@undp.org) and/or visit: [unteamworks.org/innovation](http://unteamworks.org/innovation)**

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<sup>92</sup> Interview with Benjamin Kumpf, November 2015