

COMMUNITY-BASED POLICING  
AND  
POST-CONFLICT POLICE REFORM

A HORIZON 2020 PROJECT

Tech and COP  
Assessment in Each  
Regional Country  
Context

D 3.7

Norwegian University of Life Sciences  
Department of International Environment and Development Studies



## Deliverable 3.7

### Country Reports: Tech and COP Assessment in each regional country context

In fulfillment of Deliverable 3.7, SIMLab has produced regional overviews that combine findings from the desk reports (Deliverable 3.2) and the fieldwork Context Assessment reports (Deliverable 3.3) for each of the four regions. The regional summaries, which are technical, rather than academic reports, aim to contrast country specific findings across each of the regions, while also identifying key unifying themes that deserve further exploration. The summaries pull from ongoing consortium research, data on ICT usage, and literature regarding regional and country-specific security. Key themes address particular community level challenges with regard to social vulnerability, security threats, and access to information and communications technologies. These themes will ultimately help to support the decision-making used in eventual Technology implementation guides (Deliverable 3.8), and future avenues for consortium research and collaborations.

**N.B.** The initial delivery date for Deliverable 3.3 was set as 30 November 2016. A previous postponement request was made, based on changes in the project timeline due to staff changes at SIMLab and the timing of the work of the researchers. This request was but never responded to by the EC Programme Officer.

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# Regional Overview: East Africa

## Executive Summary

Across the region of East Africa, conflict and insecurity present challenges to police reform and community policing initiatives. While Kenya, Somalia, and South Sudan all face particular challenges, it is useful to consider the patterns that echo across all three countries, and consider how ICTs can be leveraged in the face of insurgency, terrorism, and civil conflict, to strengthen community relations and partnerships with security providers and police. While Kenya is a substantially larger and more developed country, with a population of approximately 42.7 million,<sup>1</sup> Somalia and South Sudan are smaller neighbors at 10 and 12.5 million in population respectively,<sup>2</sup> and both face steeper development challenges. Nonetheless, their proximity as neighbors with shared borders, and even shared internally displaced persons (IDPs), makes them a useful case for study from a regional perspective. Violence is endemic in all three countries, and while ethnic violence is more predominant in both Kenya and South Sudan, Somalia struggles with violence along clan lines, and from the continued insurgent rule and violence perpetrated by the Al-Shabaab terrorist group. In terms of infrastructure and ICTs, Kenya is significantly more advanced in terms of development, including a mobile penetration rate of 82% of the population as of 2015.<sup>3</sup> Somalia and South Sudan have nonetheless seen ICT growth in recent years, though penetration rates remain at approximately half the population or lower. Growth is continually threatened by government instability and ongoing conflict, and all three countries are grappling with issues of ICT surveillance and privacy, with freedom of speech and communication coming under threat from government forces and insurgent groups alike. Across all three countries, important patterns emerge from the initial research findings, revealing high levels of poverty and illiteracy, unstable governance and distrust in the rule of law at the community level, and ongoing insurgent conflict that creates particular vulnerabilities for youth and women. These realities pose significant vulnerabilities for many communities, and even as ICTs and particularly mobile devices have grown in popularity, there remains significant portions of all three countries that do not have access to consistent or meaningful access to ICTs, an important reminder of the need to carefully consider locally appropriate and inclusive communication strategies to reach communities and build trust with security providers and police.

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<sup>1</sup> BBC Monitoring (2016). *Kenya country profile*. Retrieved from: <http://www.bbc.com/news/world-africa-13681341>

<sup>2</sup> Central Intelligence Agency (CIA). (2017, January 12). Africa: South Sudan. *CIA World Factbook*. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/geos/od.html>

<sup>3</sup> CIA World Factbook (2016). Africa: Kenya. Retrieved from: <https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html>

## Lines of Inquiry

SIMLab's Lines of Inquiry examine the overall technology and communications landscape in the focus countries in greater detail, in an effort to better understand the ways in which people access information with regard to possible threats, security resources, community information, reporting to and from police forces, among a myriad other community security related issues. The lines of inquiry examine five key areas: the people affected; the community and culture in which they live; the market and technology environment; the political economy and environment; and the implementing organization or environment. In this case, the implementing organization or environment refers to the environment in which possible initiatives or pilot projects might take place, and focuses on precedent examples of organizations or pilots that leverage community engagement or technology strategies for sharing information, make services more accessible, creating greater accountability, or connecting community and police.

## People

The following section on people examines the role of demographics in how people access information and technologies in the three countries of study. Factors such as income and poverty, gender, age, or literacy levels, all pose significant security vulnerabilities generally as well as barriers to access for ICTs. Unsurprisingly, conflict and poverty are disruptors of any sort of stability in daily life, and create high levels of vulnerability. This in turn makes access to media and ICTs much more challenging. Access to information and communications is also challenged by low levels of education and literacy, as well as the gaps in access that fall along gender lines, for example.

Unemployment and poverty are high across all three countries, and unemployment is consistently higher for women, youth, and particularly female youth. A large portion of Kenya's population is described as "food insecure" as drought spreads, Somalia is facing the threat of famine again for the second time in six years, and South Sudan has seen famine declared in several of its counties as of April 2017, indicating the severity not just of the country's poverty, but also the civil conflict that challenges the government's ability to take action. Poverty in Turkana, where the SIMLab research has focused for the present moment, is estimated at 94% of the population, with residents suffering from food insecurity.<sup>4</sup> Notably, this lack of economic opportunity this leaves youth vulnerable not just to poverty or economic instability, but also to the lure of insurgent groups, such as Al-Shabaab in Somalia, who offer, at the very least the perception of, a more stable lifestyle. In remote and rural parts of all three countries, communities are highly dependent on agricultural, pastoral, and semi-nomadic lifestyles for employment and economic opportunity. Impoverishment and inequality also extends to access to services and resources, where policing and security is just one example of insufficient servicing from government.

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<sup>4</sup> Siringi, S. (2013). Daily Nation. *Kajiado richest and Turkana poorest in new county ranking*. Retrieved from: <http://www.nation.co.ke/news/politics/Kajiado-richest-county-Turkana-poorest-/1064-1930892-q2ypfwz/index.html>

Consistent with the regional struggles with poverty, literacy rates across all three countries are low, at just 38.5% in Kenya, 37.8% in Somalia,<sup>5</sup> and 27% in South Sudan.<sup>6</sup> In all three countries, literacy rates are consistently lower for women and female youth, indicating a critical gender gap, and one that extends to women's meaningful access to media and ICTs, as they are less likely to be able to understand print media, navigate internet web sites, or use mobile phones with ease, for example. While Kenyans speak English more consistently, all three countries are multilingual, and Somalia and South Sudan speak both Arabic and English. In South Sudan, dozens of local languages are spoken by the country's numerous ethnic groups. This is also a limiting challenge for use of mobile phones, or print media, particularly for those living outside of urban areas who may rely on local languages. This may also explain the continued popularity of radio as a key communication strategy across the region, as an affordable and accessible ICT to reach broader populations.

All three societies are young, with 75% of the Kenyan population under 30,<sup>7</sup> 70% of the Somali population under the age of 30,<sup>8</sup> and 65% of South Sudan's population below the age of 24.<sup>9</sup> Educational infrastructure is limited to begin with, and further disrupted by violence and conflict. As outlined earlier, children are vulnerable not only as displaced persons or refugees, but also are targeted for recruitment by insurgent groups or militias. Gender discrimination and gender based violence is also a notable challenges across the region. This is not limited just to higher rates of unemployment, poverty, or illiteracy, but also to higher victimization rates for women, such as through sexual and gender based violence. This is used as a tool of warfare, particularly in South Sudan's ongoing civil crisis, for example. Women, along with children, also make up the majority of IDPs, refugees, and migrants in the region.

## Community

A closer look at the community level helps to understand how individual characteristics and disadvantages may be aggregated within communities. Communities experience crime differently across geographies, and the movement of peoples through forced and voluntary migration across the country and region is also tied into vulnerability and instability overall, thus creating disruptions in access

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<sup>5</sup> CIA World Factbook. (2017, January 12). Country profile: Somalia. *Central Intelligence Agency*. <https://www.cia.gov/library/publications/the-world-factbook/geos/so.html>

<sup>6</sup> Central Intelligence Agency (CIA). (2017, January 12). Africa: South Sudan. *CIA World Factbook*. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/geos/od.html>

<sup>7</sup> CIA World Factbook (2016). Africa: Kenya. Retrieved from: <https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html>

<sup>8</sup> UNDP. (2012). Somalia Human Development Report 2012: Empowering Youth for Peace and Development. Retrieved from [http://www.hdr.undp.org/sites/default/files/reports/242/somalia\\_report\\_2012.pdf](http://www.hdr.undp.org/sites/default/files/reports/242/somalia_report_2012.pdf)

<sup>9</sup> Central Intelligence Agency (CIA). (2017, January 12). Africa: South Sudan. *CIA World Factbook*. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/geos/od.html>

to information, communications, and technologies. Notably, urban and rural areas have very different experiences of insecurity, and at the same time, very different access to technology, compounded by a number of other factors that also affect access, such as levels of income or literacy. Additionally, ethnicities and clan identifies prove to be an important factor in the region, as rivalries and longstanding conflict form the platform from which present day conflict and violence builds. For example, in Somalia, the country is largely homogenous in terms of ethnic identity, and groups identify along clan lines, rather than the more stark ethnic identities in South Sudan or Kenya. South Sudan's current civil conflict is a decidedly ethno-political conflict, between two of the country's largest ethnic groups, and conflict in Kenya's remote regions, such as Turkana County, tend to fall along the lines of traditional ethnic groups.

Migration, whether forced migration or displacement due to violence, or economic migration in search of job opportunities, is common. In Somalia, for example, 1.1 million Somalis are internally displaced, and another 1.1 million have sought shelter across East Africa, including in Dadaab in Kenya, the world's largest refugee camp.<sup>10</sup> Similarly, South Sudan has high rates of internal displacement, with nearly a quarter million IDPs throughout the country,<sup>11</sup> and an estimated 800,000 South Sudanese who have fled to neighboring Uganda.<sup>12</sup>

Though urbanization is increasing across the region, all three countries remain predominantly rural. In Kenya, an estimated 25.6% of the population live in urban areas, as compared to 39.6% in Somalia,<sup>13</sup> and just 18.8% in South Sudan.<sup>14</sup> As urbanization steadily growing across the region, infrastructure and development have largely favored urban areas, including infrastructure for ICTs. Given infrastructure development, as well as the likelihood of slightly higher incomes and higher literacy at the household level, ICT use and media device ownership is more common in urban areas. In Kenya, for example, the country's capital and major urban center of Nairobi has significantly higher literacy levels than the country on the whole, at 87.% in Nairobi as compared to 38.5% nationally.<sup>15</sup> Nonetheless, even though urban populations may appear to have higher or better access to ICTs, it

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<sup>10</sup> HRW. (2016, September 14). Kenya: Involuntary Refugee Returns to Somali. *Human Rights Watch*. Retrieved from <https://www.hrw.org/news/2016/09/14/kenya-involuntary-refugee-returns-somalia>

<sup>11</sup> International Organization for Migration (IOM). (2017, April 12). 8,000 People Displaced by Recent Violence in Wau, South Sudan. *IOM*. Retrieved from <https://southsudan.iom.int/media-and-reports/press-release/8000-people-displaced-recent-violence-wau-south-sudan>

<sup>12</sup> Matthews, C. (2017, April 12). South Sudanese refugees struggling to survive in Uganda's cities. *IRIN*. Retrieved from <http://www.irinnews.org/feature/2017/04/12/south-sudanese-refugees-struggling-survive-uganda%E2%80%99s-cities>

<sup>13</sup> UN Data. (2015). Somalia. *United Nations Data*. Retrieved from <http://data.un.org/CountryProfile.aspx?crName=somalia>

<sup>14</sup> Central Intelligence Agency (CIA). (2017, January 12). Africa: South Sudan. *CIA World Factbook*. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/geos/od.html>

<sup>15</sup> Eldis. (2007).

bears noting that urban centers also house increasing numbers of migrants and displaced populations, who have very different demographic backgrounds than the urban host population, and be facing significant vulnerabilities that impact their ability to access ICTs or communicate effectively to gain access to services. Urban and rural areas also vary in their experiences crime and safety. In Turkana County in Kenya, for example, “cattle raids, inter-communal resource conflicts, and banditry are common,”<sup>16</sup> whereas theft of goods or petty violence may be more common in Nairobi, Kenya. Interestingly, responses to incidents vary greatly, with rural communities tending to rely on existing traditional structures for dispute resolution, particularly given the relative absence of government agencies or service providers, such as the police. In more remote areas where traditional law remains in place, community members may rely on elders to assist with disputes, whether interpersonal or contractual, rather than any more formal security or governing body.<sup>17</sup> This is a critical pattern to consider, as it will be fundamental to include as part of any community partnerships around security or relationship building with the police, in rural areas.

## Market Environment

Overall, the markets in all three countries for ICTs, and particularly for mobile technologies, has grown in the last several decades. Kenya’s market sector is relatively well regulated, and characterized as one that is friendly to innovation. In Somalia, though growth has been possible, a failure to consistently regulate the market has created a complex and inefficient market with multiple small providers. Nonetheless, given high levels of competition, access to mobile telephony is still among the most affordable in all of Africa.<sup>18</sup> Particularly in Somalia and South Sudan, ICT infrastructure is limited largely to urban areas, and South Sudan lags behind significantly in the region terms of infrastructure, owing in large part to the country’s ongoing conflict that has become more severe since December 2013.

Mobile penetration is highest in Kenya, estimated at 82% of the population as of 2015,<sup>19</sup> while in Somalia mobile penetration is estimated at anywhere between 29%<sup>20</sup> to 55%<sup>21</sup> of the population, and in South Sudan mobile penetration is

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<sup>16</sup> IRIN (2009). *What drives conflict in Northern Kenya*. Retrieved from:

<http://www.irinnews.org/report/87450/kenya-what-drives-conflict-northern-kenya>

<sup>17</sup> CGCS. (2014, June). Mapping ICTs in Somalia: Policies, Players, and Practices. Center for Global Communication Studies. Retrieved from

[http://www.global.asc.upenn.edu/app/uploads/2014/08/Mapping\\_ICTs\\_in\\_Somalia.pdf](http://www.global.asc.upenn.edu/app/uploads/2014/08/Mapping_ICTs_in_Somalia.pdf)

<sup>18</sup> CGCS. (2014, June).

<sup>19</sup> CIA World Factbook (2016). Africa: Kenya. Retrieved from:

<https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html>

<sup>20</sup> GSMA. (2016). The Mobile Economy: Middle East and North Africa 2016. (GSMA).

Retrieved from

<https://www.gsmaintelligence.com/research/?file=9246bbe14813f73dd85b97a90738c860&download>

<sup>21</sup> CIA World Factbook. (2017, January 12).

estimated at approximately 23%,<sup>22</sup> at just one quarter of the country's population. While penetration numbers are typically shared as evidence of a country's development and progress toward ICT infrastructure, these are equally useful indicators to emphasize the significant portions of all three countries that have little to no access to mobile phones of any kind, and are therefore excluded from any type of initiative that utilizes mobile communication. It also bears noting that even in cases where metrics indicate high mobile penetration, the reality may be significantly lower because of cellphone owners with multiple active phone numbers, driving up statistics of presumed cell phone usage.<sup>23</sup> Given these low levels of penetration, it is also reasonable to expect that police forces in all three countries, particularly in rural or remote areas facing high levels of poverty and limited services, will be unlikely to have regular access to mobile phones for communicating with each other, or with community members in any meaningful way. Where data is available, reports indicate that internet access remains low, and is largely limited to access via mobile devices rather than broadband, which in turn limits what type of internet sites or applications can be used. Additionally, internet access may be greatly challenged by poor, unstable, or expensive connectivity.

As such, radio remains a popular ICT across all three countries, and proves particularly popular in rural areas where ICT infrastructure is limited or challenging with limited levels of electrification. Even so, data indicates that in each country, portions of the population do not access any media or ICTs on a regular basis, even including radio, whether due to economic, literacy, or social reasons. This means that any communication strategy must carefully consider how to best engage with vulnerable populations through accessible, and likely in-person, strategies, building on traditional communication techniques such as community meetings, murals, or public performances.

## Political Environment

The political environment regarding the governance of police as well as the ever expanding ICT market sector is complicated territory in all three countries. Although community policing has been introduced by national policy, in the case of Kenya, and through initiatives by the donor community, community policing or COP remains an unfamiliar concept and one that has been put into place in very few instances. As such, community-facing engagement supported by ICTs is largely nonexistent, limited to designated telephone numbers for citizens to call the police with complaints, but little has been done to educate the community about the accountability process, or to promote any other form of relationship building with the police to make citizens feel more comfortable reporting or communicating. At the same time, media freedom and freedom of speech has been infringed in all three countries, even in spite of national legislation governing freedoms of speech.

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<sup>22</sup> Central Intelligence Agency (CIA). (2017, January 12). Africa: South Sudan. *CIA World Factbook*. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/geos/od.html>

<sup>23</sup> Economist (2016). *Why half of Africans still don't have mobile phones*. Retrieved from: <http://www.economist.com/blogs/economist-explains/2016/12/economist-explains-13>

Spyware, surveillance, and privacy breaches, whether perpetrated by insurgent groups or government allies, are likely to contribute to significant discomfort at the community level, making citizens less likely to feel comfortable communicating with one another about security issues, or with the police or other security agencies about potential risks. This discomfort and distrust is a critical issue to address, as overcoming these obstacles will be an important factor in the success of any police reform or community policing strategy that involves ICTs.

## Implementing Environment

Across the region, community policing has been promoted as a concept primarily by donor agencies, and initiatives that leverage ICTs explicitly have largely been limited to social development more generally, rather than promoting community security or creating mechanisms for community police engagement. Nonetheless, examples indicate the extent to which ICTs can provide a platform for engagement and empowerment, particularly for vulnerable groups such as youth or women. Examples have primarily included leveraging ICTs to address ongoing unrest or conflict at a broader scale, whether for soliciting donations, crowdsourcing information about the locations of ongoing crises, or analyzing hate speech in an effort to quell ethnic or politically motivated violence. Findings also indicate some initiatives focused on trainings for mobile literacy, particularly for youth empowerment. Ongoing research will continue to engage with precedent examples as a means to understanding how ICTs can best be applied to address police reform and community policing in the face of ongoing ethnic conflict and insurgency.

In Kenya in particular, SIMLab's work on a pilot initiative in Turkana County will work directly with Handicap International (HI) on an ongoing community safety initiative. Currently, HI and several community partners, including the Free Pentecostal Fellowship in Kenya (FPFK), are operating an Early Warning System (EWS) and running a Community Peace Representative (CPR) program, to promote community awareness about security risks and peacebuilding efforts. Currently, the EWS uses five community "surveyors" across three communities to send coded SMS according to a taxonomy of risks. Local chiefs also send text messages, which are received by dispatch and passed back to police via SMS. Beginning in May 2017, SIMLab's role in the pilot initiative will be to help identify how the system can scale up, perform better data analysis, and include additional technologies as necessary.

## Key Emerging Regional Themes

Numerous key themes emerge from the desk research in each country and across the region. While not all were covered specifically in the desk review, these offer possible opportunities for future research or areas of engagement, in which ICTs and inclusive technologies could play an important role in bridging the gap between communities and the government, police, or other security providers.

### Addressing ethnic violence

Particularly in Kenya and South Sudan, where ethnically-motivated violence is still common, strategic use of inclusive ICTs could go a long way toward helping communities learn about current events, become more educated on tribal

differences, voice concerns, and engage in community building at the local level. Sensitive and well designed radio programming is one clear example, as are facilitated community meetings that bring together neighboring groups. The work of the Community Peace Representatives (CPR) by Handicap International, described in the section above, are one example of using neutral parties such as churches or NGOs to help bridge across clan or ethnic divides through community communication strategies, in this case CPRs who work with local communities to discuss peacebuilding or armed violence reduction, for example.

### **Broadening the definitions of community policing**

As community policing policies attempt to work themselves into application in reality across the region, a key part of their success will be developing a positive, inclusive, community level understanding of COP. Particularly given the traditions of community organization by clan or ethnic group, research findings suggest that the term “community” can in fact be problematic, and one that signals clan or ethnic identity, rather than a broader civic identity promoting efficacy and engagement with government. Additionally, community policing appears to bring up negative associations with local level “policing” strategies imposed by authoritarian regimes to oppress local communities, or the vigilante “policing” through neighborhood watch groups that have sprung up in areas where government control is largely absent. Therefore, much like the strategies identified in the above discussion on ethnic difference, consistent radio programming and facilitated community meetings can be an effective tool for ensuring that a conversation around community policing is not solely taking place a policy level. In rural areas, this could be most effectively facilitated with police or security providers present, and facilitated or promoted by tribal or traditional leaders, as a way of addressing how existing traditional structures may interplay with emerging community policing strategies. In urban areas, where traditional structures may not be in place, local NGOs or service providers can be key stakeholders to help facilitate meetings around safety and security, and serve as a bridge the local police in order to begin to develop the perception of police as legitimate and trustworthy, and to jointly come to an understanding with the community about how community policing could most effectively be realized.

### **Leveraging traditional community mediation structures**

As discussed in the above section, it is important to remember that the region’s overwhelmingly rural population may still rely on existing traditional conflict resolution or mediation structures when faced with conflict. Therefore, community policing strategies would do well to integrate into existing practices of face-to-face community meetings convened by a tribal leader or community elder, or door-to-door communications for announcements, for example. In order to integrate technology most effectively, potential strategies might train tribal leaders or community representatives in the use of accessible technologies, such as easy to use satellite or mobile phones, to enable local leaders, trusted by the community, to have an easier method through which to connect with the police or other security providers. Though less common in urban areas, this type of “community representative” model is one that could be strategically applied in urban areas, utilizing common technologies, such as mobile phones with SMS text messages or

interactive voice response (IVR), or popular radio programs that incorporate a specific theme regarding security, conflict, or crime, and enable listeners to engage in dialogue with show hosts and even government officials or police.

## Concluding Remarks

Overall, while Kenya, Somalia, and South Sudan all face particular challenges, key patterns emerge across all three countries and serve as powerful reminders of how the region's increasing use of ICTs can be best leveraged to promote community security and community oriented policing. High rates of poverty, illiteracy, and displacement, all related to government instability and ongoing ethnic and extremist violent conflict, are common in all three countries to differing degrees, and each limit access to information and technologies significantly. Though mobile penetration has grown, ranging from approximately 25% of the population in South Sudan to 85% of the population in Kenya, there remains a sizeable portion of the regional population without meaningful access to ICTs of any kind, a powerful reminder of the need to focus on communication strategies that leverage a range of inclusive tools, balancing the clear advantages of mobile technologies with existing, more traditional techniques such as community meetings and workshops. As research continues, and particularly with the initiation of the pilot project in Turkana County, Kenya, it will be critical to document how a bridging of "high-" and "low-" technology can most effectively bring community members and police forces together in an inclusive and representative manner, increasing information flows and bolstering community safety.

# Regional Overview: South Asia

## Executive Summary

The ICT4COP research covers two South Asian countries: Afghanistan and Pakistan. The following country report addresses the media and communications landscape in both countries in an effort to identify possible areas for further research or engagement around community security. The report address the five key lines of inquiry engaged in the initial desk research, comparing and contrasting across the two countries, and concluding with a brief consideration of key regional themes.

With political instability, ongoing insurgent warfare, incipient efforts at police reform, and a rapidly growing ICT sector, the two countries offer a useful perspective into how information and communications technologies (ICTs) can be leveraged to strengthen relationships between communities and service and security providers, including police, and build toward greater community security at the local level. For decades, South Asia has experienced violent conflict characterized by political instability, government corruption, and an increasingly fractured and complex security environment with numerous extremist and insurgent groups laying claim to territory and launching violent attacks on individuals, communities, and government forces alike. Conflict has caused significant internal displacement and migration across the region, including a large population of Afghans seeking refuge from violence in neighboring Pakistan.

Amidst these challenges, the region has nonetheless seen significant growth in technology adoption, particularly for mobile cellular coverage, which has expanded considerably since mobile networks were initially introduced into the region in 2002. Opportunities for engagement in the intersection of ICTs and security are numerous, as police reform has only very minimally engaged with community-facing technologies, and an appetite for community empowerment through media and ICTs is growing in the region. That said, however, freedom of speech is still actively threatened by government allies and insurgent groups alike, and cultural resistance to adoption of new technologies remains a significant barrier, particularly for women. These complications only add on the already existing gaps in access to ICTs due to high levels of poverty, illiteracy, whether written or technological, and disruptions due to violence and conflict. Therefore, any adoptions of ICTs should be careful to consider the vulnerable groups excluded, such as youth, women, elderly, migrants, and the indigent, and make an effort to include strategic redundancies through accessible ICTs such as radio programs or community meetings to ensure the broadest possible population is reached and effectively engaged.

## Abbreviations

ICTs	Information and communications technologies
LGBTI	Lesbian, gay, bisexual, trans, and/or intersex

SIM

Subscriber identification module

## Lines of Inquiry

SIMLab's Lines of Inquiry examine the overall technology and communications landscape in the focus countries in greater detail, in an effort to better understand the ways in which people access information with regard to possible threats, security resources, community information, reporting to and from police forces, among a myriad other community security related issues. The lines of inquiry examine five key areas: the people affected; the community and culture in which they live; the market and technology environment; the political economy and environment; and the implementing organization or environment. In this case, the implementing organization or environment refers to the environment in which possible initiatives or pilot projects might take place, and focuses on precedent examples of organizations or pilots that leverage community engagement or technology strategies for sharing information, make services more accessible, creating greater accountability, or connecting community and police.

### People

The following section on people examines the role of demographics in how people access information and technologies in the two countries of study. Factors such as income and poverty, literacy levels, or gender and age, all pose significant security vulnerabilities as well as barriers to access for ICTs.

Poverty levels are high across both countries, with large rural populations working in agriculture. As such, unemployment and underemployment are common, a first signal that consistent access to media and ICTs may be challenging due to inconsistent salaries on a monthly or yearly basis. Both Afghanistan and Pakistan are multilingual societies with high illiteracy rates, creating challenges for access to ICTs, whether because of the implications that illiteracy has for well-paid and consistent earnings, or for being able to understand a radio broadcast, reliably read messages or online news, or to use a mobile interface written in an unfamiliar language, among other considerations. While literacy is estimated at approximately 28% in Afghanistan,<sup>24</sup> Pakistan's overall literacy is significantly higher, at approximately 58%.<sup>25</sup> Nonetheless, this means that the region faces an illiteracy rate of anywhere between 40 to 70% of the population who are less likely to access ICTs, and even when they do, may have a significantly different and likely more challenging user experience.

With regard to the research's cross-cutting themes of gender and youth, it is important to note the particular gaps and vulnerabilities facing women and children in both countries, whether with regard to access to fundamental rights or services,

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<sup>24</sup> International Finance Corporation (IFC). (2013, September). IFC Mobile Money Scoping Country Report: Afghanistan. *IFC*. Retrieved from <http://www.ifc.org/wps/wcm/connect/7cdac90043efb2839599bd869243d457/Afghanistan+Scoping+Public.pdf?MOD=AJPERES>

<sup>25</sup> National Education Management Information System (NEMIS). (2017, February). Pakistan Education Statistics 2015-2016. *NEMIS*. Retrieved from <http://library.aepam.edu.pk/Books/Pakistan%20Education%20Statistics%202015-16.pdf>

security, or media and ICTs. Women across the region experience a severe gender gap with regard to levels of education, literacy, or even personal freedoms and protection against violence. In Afghanistan, an estimated 18% of women meet literacy standards,<sup>26</sup> while in Pakistan an estimated 48% of women are literate.<sup>27</sup> While literacy itself poses challenges to access to resource and ease of use of ICTs, this is additionally challenged by some lingering cultural reluctance to adoption of ICTs, particularly for women, for whom it is seen as unnecessary or even improper to engage with social media, for example.

Women are also underrepresented in the workforce, and particularly underrepresented in the police force, accounting for just 1% of Afghanistan's police force, for example.<sup>28</sup> This is particularly problematic in a society where women are often expected to be subservient to male family members and husbands and restricted in their mobility or ability to leave the home. These restrictions on agency making any outreach between women and the police or other security agents restricted to begin with, and this is particularly challenging with regard to reporting more sensitive cases of domestic violence or harassment and rape, a sensitivity that might be bridged in part by having more representations of female police officers, for example.

Youth, by comparison, have more favorable statistics than women with regard to literacy and access to media and ICTs. In Afghanistan, As of 2015, the youth literacy rate, for ages 15-24, was estimated at 58.21%, significantly higher than the adult rate, estimated at anywhere between 28 and 38% of the population.<sup>29</sup> This is noticeably higher for male youth, who have a literacy rate of 69.95% while female youth have a literacy rate of just 46.33%.<sup>30</sup>

For youth in Pakistan, youth literacy is also slightly higher than that of adults, and has remained consistent at 72% of youth between the ages of 15-24 from 2012 to 2016.<sup>31</sup> Just as in Afghanistan, literacy among male youth is higher, at 81%, as compared to just 64% for female youth.<sup>32</sup> This literacy likely lends itself well to literacy with ITCs, as youth have a higher level of comfort in exploring interfaces in

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<sup>26</sup> USAID. (2013a).

<sup>27</sup> Asia Development Bank (ADB). (2016). PAKISTAN COUNTRY GENDER ASSESSMENT. ADB. Retrieved from <https://www.adb.org/sites/default/files/institutional-document/218821/pak-gender-assessment-vol1.pdf>

<sup>28</sup> UNAMA. (2013, August 4). Afghan Female Police Officer Literacy Rates Improve Through Mobile Phone Programme. *United Nations Assistance Mission in Afghanistan*. Retrieved from <https://unama.unmissions.org/afghan-female-police-officer-literacy-rates-improve-through-mobile-phone-programme>

<sup>29</sup> UNESCO. (2015). Mobile Literacy Programme in Afghanistan. *UNESCO Institute for Lifelong Learning*. Retrieved from <http://www.unesco.org/uil/litbase/?menu=4&programme=146>

<sup>30</sup> UNESCO. (2015).

<sup>31</sup> National Education Management Information System (NEMIS). (2017, February). Pakistan Education Statistics 2015-2016. *NEMIS*. Retrieved from <http://library.aepam.edu.pk/Books/Pakistan%20Education%20Statistics%202015-16.pdf>

<sup>32</sup> NEMIS. (2017, February).

written languages, whether via the internet or on mobile devices. In Afghanistan, youth access to the internet is slightly higher than the national average, at 12.7% as compared to 12.3%, for example.<sup>33</sup>

Youth are predominant populations in both countries, with an estimated 64.5% of the Afghan population under the age of 24,<sup>34</sup> and an estimated 53.3% of the Pakistani population under the age of 24.<sup>35</sup> As these sizeable youth populations continue to grow, they are becoming adults in a society with growing familiarity with ICTs but also increasingly common violence and instability. Even though literacy rates indicate that youth are accessing education at higher rates than the overall adult population, education has nonetheless been threatened and disrupted by the ongoing violence in both countries, with children forced out of school in insurgent-controlled areas, the enforcement of male-only schools by insurgent groups, or even military takeovers of public schools for use as strategic wartime positions.

In the complex security environment in which the region finds itself, it bears noting that this higher literacy and access to ICTs may also make youth more vulnerable to extremist propaganda or recruitment by insurgent groups via social media sites such as Facebook, Twitter, or messaging applications such as WhatsApp.

## Community

A closer look at the community level helps to understand how individual characteristics and disadvantages may be aggregated within communities. Communities experience crime differently across geographies, and the movement of peoples through forced and voluntary migration across the country and region is also tied into vulnerability and instability overall, thus creating disruptions in access to information, communications, and technologies. Violence and conflict from insurgent groups has been common across both countries for decades, and has caused significant challenges at the local level. Migration, whether forced migration or displacement due to ongoing violence or natural disaster, or even economic migration in search of job opportunities, is also common in both Afghanistan and Pakistan, with significant migration of Afghans into Pakistan, estimated at approximately three million Afghans, for example.<sup>36</sup> Both countries are multiethnic and multilingual, with 14 ethnic groups recognized in Afghanistan, for example.<sup>37</sup>

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<sup>33</sup> Broadcasting Board of Governors (BBG). (2014). Media Use in Afghanistan. *BBG*. Retrieved from <https://www.bbg.gov/wp-content/media/2015/01/Afghanistan-research-brief.pdf>

<sup>34</sup> International Finance Corporation (IFC).

<sup>35</sup> Central Intelligence Agency (CIA). (2016, January 12). South Asia: Pakistan. *CIA World Factbook*. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/geos/pk.html>

<sup>36</sup> Gul, A. (2017, March 14). Pakistan Set to Conduct First Census in 19 Years. *Voice of America*. Retrieved from <http://www.voanews.com/a/pakistan-census/3762227.html>

<sup>37</sup> Central Intelligence Agency (CIA). (2017, January 12).

Afghanistan and Pakistan alike are predominantly Muslim at higher than 95%,<sup>38</sup> with the vast majority of Muslims, at around 85%, identifying as Sunni, and the remaining 10% identifying as Shia,<sup>39</sup> a split which has been a partial explanation for the growing sectarian violence across the region.

Notably, urban and rural areas have very different experiences of insecurity, and at the same time, very different access to technology, compounded by a number of other factors that also affect access, such as levels of income or literacy. Although both countries are predominantly rural, urbanization rates are growing in each country, as cities provide increasing infrastructure, services, and refuge for rural residents seeking economic opportunity or safety from insurgent control in rural or remote territories. Although territorial control by insurgent groups is largely limited to rural areas, urban areas are nonetheless targeted sites of violence. Whereas rural areas might be current or formal sites of active warfare, urban areas are instead sites of violent terrorist attacks, such as on government buildings or schools.

In addition to experiencing violence and conflict differently, urban and rural areas also access media and ICTs distinctly. For example, urban residents repeatedly report higher access to news, in addition to the internet and mobile phones. Radio, however, is much more common in rural areas in both Afghanistan and Pakistan, and thus is an important tool to remember as a key option for connecting with more remote communities around risks or public safety, as it often accessible for low-income, low-literacy communities. Nonetheless, even though radio is more common in rural and remote areas, reports indicate that there remain communities who do not access radio at all, regardless of geography. Therefore, outreach strategies cannot rely on radio as the only tool for vulnerable or remote communities, and must instead continue to rely on more traditional community engagement strategies, particularly those that may already be ongoing and ingrained, such as community meetings with tribal or local leaders.

## Market Environment

As the report has alluded to thus far, access to media and ICTs, mainly through mobile access, has grown significantly in both countries in the last 15 years. Even as violent conflict has been ongoing across the region, economic development through the ICT sector has nonetheless been possible, with mobile network coverage reaching an estimated 80-90% of both countries.<sup>40</sup> Mobile technologies in particular have also become significantly more affordable over time, particularly with the growth of a second-hand market and the relatively inexpensive cost of acquiring a SIM card. While fixed telephony is nearly nonexistent in both countries, mobile telephone use has grown tremendously, with penetration at approximately

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<sup>38</sup> Central Intelligence Agency (CIA). (2017, January 12).

<sup>39</sup> Central Intelligence Agency (CIA). (2017, January 12).

<sup>40</sup> Central Intelligence Agency (CIA). (2017, January 12).

61% in Afghanistan,<sup>41</sup> and approximately 73.3% in Pakistan.<sup>42</sup> Smartphone usage is incipient, with licenses issued in Afghanistan beginning in 2012, and estimated at approximately 14% of the market as of 2014.<sup>43</sup> While mobile cellular access has far outpaced any other form of ICT in terms of uptake, there are nonetheless other forms of technology that bear noting, as television and radio remain popular forms of communication, and radio in particular is a useful tool for the significant populations in both countries who are impoverished, living in remote areas with limited access to electricity or mobile networks, and who may be illiterate or only very minimally literate in either country's predominant languages. As discussed in the previous lines of inquiry regarding gender and age, significant gaps in access to media and ICTs nonetheless remain, with women accessing ICTs of all kinds at significantly lower rates than men, regardless of age or geography. Given the ongoing conflict in both countries and the sheer remoteness of some communities, it also bears noting that there are significant populations who have no access to ICTs whatsoever, and instead rely entirely on community communications structures through tribal elders or local leaders.

Overall, there is little to suggest in the research that there has been meaningful adoption of technologies for citizen engagement or awareness regarding security or strengthening relations with the police or security forces. However, both countries have seen growing risks related to internet and social media use, as insurgent groups have leveraged new technologies, taking clear note of their higher rates of use among youth, as a tool for spreading propaganda, targeting recruitment, or limiting freedoms of speech. As such, promoting technological literacy becomes all the more important for the types of risks that new users to social media or the internet may face as insurgent groups grow more tactical in their use of media. In general, surveillance and digital media security is another growing risk for ICT users, to be discussed in greater detail in the following section on the political environment.

## Political Environment

Given the general political instability in each country, governance over media and ICTs has also been volatile and controversial. Unstable leadership and corruption is perceived as common within government, and trust in local level entities such as the police is also relatively weak. Although governments in both countries have supported efforts to increase ICT infrastructure and mobile networks as they grow in strength and popularity, both countries face grave human rights abuses with regard to the free and open use of the internet and digital security. The targeting of freedom of speech by journalists or activists via television broadcasts, internet publications, social media, or even interpersonal communications, is not limited to insurgent groups or violent extremists. Rather, violence has also been attributed to government forces or police, and governments in both countries have relatively broad powers to conduct surveillance, censor online content, or even criminalize

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<sup>41</sup> Central Intelligence Agency (CIA). (2017, January 12).

<sup>42</sup> ITU. (2014). Pakistan Profile. *ITU*. Retrieved from <http://www.itu.int/net4/itu-d/icteye/>

<sup>43</sup> BBG. (2014).

some user behavior online. Unsurprisingly, this poses a major challenge to freedom of speech, and to establishing the trust necessary to encourage open reporting of security risks or incidents at the community level. These are all necessary conditions in the context of security sector or police reform, as there leaves little room for government and police accountability if open reporting is threatened.

## Implementing Environment and/or Pilot Project Parameters

With a proactive and robust private ICT sector in both countries, there are a number of useful precedent examples that help to understand how media and technology could be leveraged in the future in the context of police reform and building relationships between community members and security providers, such as police. In both countries, several precedent examples target the empowerment of women and youth specifically, in an effort to address the vulnerabilities of both groups in society, as they are more susceptible to violence and conflict. This is particularly true for women and female youth, who may have significant stumbling blocks in attempting to consistently access ICTs, or to use ICTs independently or with ease, whether due to cultural, economic, or literacy limitations. In Afghanistan in particular, groups have focused on promoting literacy through “mobile literacy” curricula, that works to engage users in interactive, SMS-based programs, that bolster written literacy and technological literacy simultaneously.

In both countries there are examples of smaller initiatives that work toward community safety, engaging with community members in urban and rural areas through citizen councils, or around security plans, in an effort to foster a consistent conversation around safety and security. As the research continues, it will be critical to continue to engage with these type of case study examples to understand successful citizen engagement strategies can best be leveraged in the context of citizen security and building transparent and trusting relationships between communities and the police.

## Key Emerging Regional Themes

Numerous key themes emerge from the desk research in each country. While not all were covered specifically in the desk reviews, these offer possible opportunities for future research or areas of engagement, in which ICTs and inclusive technologies could play an important role in bridging the gap between communities and the government, police, or other security providers. If the opportunity to conduct fieldwork emerges in either of the countries, these will be key thematic areas with which to engage.

### Enabling women’s access to opportunities and security through ICTs

A number of examples from both Pakistan and Afghanistan indicate that many initiatives leverage ICTs explicitly to engage with women, working to bridge the gender gap through strategic use of mobile technologies or computer literacy. The example of the training centers initiated by Roya Mahoob through the Digital Citizen Fund in Afghanistan is one useful precedent example centered around empowering

women through digital literacy, and countering cultural prejudices against women's use of media or economic independence.<sup>44</sup> This is a theme that deserves continued exploration in the context of community safety and security specifically, as women face particular vulnerabilities due to harassment and sexual violence, and in turn, are in need of services and resources that are sensitive to their needs, in particular because they are less likely to be literate or have consistent access to ICTs independently. Engaging women is significant not only for their own safety in the face of discrimination or domestic violence, but also in the broader peacebuilding effort. As community members and household leaders, women are critical to promoting broader community safety, and this is also true for anti-insurgency efforts. Mariam Safi, a researcher at the Centre for Conflict and Peace Studies in Kabul, argues that women are "crucial to counter-extremism work," particularly because of their ability to communicate effectively with youth who are vulnerable to recruitment, for example.<sup>45</sup>

## Empowering youth, enabling education, and countering extremist recruitment

Youth are particularly vulnerable in the conflictive countries of Afghanistan and Pakistan, whether due to their higher likelihood to live in poverty, their vulnerability to targeted violence, or their susceptibility to recruitment into extremist conflict. Given these particular vulnerabilities, strategies that focus on engagement with youth are critical to the country's peacebuilding efforts, and will be particularly necessary for building relationships between youth and police or security providers.

Given the particular vulnerability of school buildings and educational facilities, "school safety plans" are one example of engagement that can be particularly effective, as a tangible point of engagement around which a diverse set of community members and stakeholders can come together to discuss security at the neighborhood or community level. In these cases, the media or technology implied might primarily be "low-tech," in the form of community meetings, enabling face-to-face, accessible discussion platforms. At the same time, however, planning decisions can also be disseminated through multiple media channels, with feedback solicited via SMS or community engagement boards, to facilitate ongoing discussion with a broad range of community members.

Additionally, given the reality that youth tend to have higher literacy rates, and higher digital literacy rates than the adult population on average, it is particularly important to work on education youth around online safety and digital security. This is true generally for the safeguarding of privacy and personal information,

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<sup>44</sup> MacDiarmid, C. (2016, December 5). Can Women Lead the Way in Afghanistan's Growth in Tech? *TakePart*. Retrieved from <http://www.takepart.com/feature/2016/12/05/afghanistan-coding>

<sup>45</sup> Ansbro, O. (2017, March 21). Why Women Are Crucial to Fighting Radicalization in Afghanistan. *News Deeply*. Retrieved from <https://www.newsdeeply.com/womenandgirls/articles/2017/03/21/women-crucial-fighting-radicalization-afghanistan>

preventing harassment of female or LGBTI youth, or even to prevent recruitment of youth by insurgent groups through social media, for example.

### Advocating transparency and digital freedoms in civil society

As internet and media use continues to grow in both countries, freedom of speech has become increasingly challenged for media outlets, journalists, and activists alike. As freedom of speech continues to prove elusive for government to uphold, whether in the face of targeted violence from insurgent groups, or even in the form of harassment, surveillance, or censorship by police or government agents, it is increasingly important to focus on digital security and privacy across the region. In the context of community security and policing, there is a clear need to work with communities to discuss the appropriate roles for security providers to make use of surveillance strategies, and to educate community members on how to ensure their own privacy and safety online. This is also a critical conversation for police and security providers to engage in to ensure that community members understand how they can safely communicate regarding sensitive information. Community members must feel secure and assured that any communication regarding possible threats, suspected insurgence, or security incidents, such as through WhatsApp, or phone calls, will be safely and anonymously communicated, and not result in any form of retribution.

### Concluding Remarks

Conflict remains a key challenge to stability and security in Afghanistan and Pakistan. Overall, however, continued growth and uptake of ICTs across Afghanistan and Pakistan point to a promising future for development in the region. Amidst significant security challenges, instability in governance, and internal displacement and migration, the region has nonetheless seen significant growth in technology adoption, particularly for mobile cellular coverage, which has expanded considerably since the introduction of mobile in 2002. Though the research has identified very few community-facing technologies for policing or security, opportunities for engagement in the intersection of ICTs and security are numerous, and police reform is one key area where inclusive technologies could have a greater impact, particularly given the region's growing appetite for community empowerment through media and ICTs. That said, however, freedom of speech is still actively threatened by government allies and insurgent groups alike, and cultural resistance to adoption of new technologies remains a significant barrier, particularly for women. These complications only add on the already existing gaps in access to ICTs due to high levels of poverty, illiteracy, whether written or technological, and disruptions due to violence and conflict. Therefore, any adoptions of ICTs should be careful to consider the vulnerable groups excluded, such as youth, women, elderly, migrants, and the indigent, and make an effort to include strategic redundancies through accessible ICTs such as radio programs or community meetings to ensure the broadest possible population is reached and effectively engaged. Key themes identified by the research findings indicate strategic areas for future engagement, including focusing on the engagement of women and youth to promote digital literacy, build relationships with the police, and to empower women and youth as peacebuilders in the face of insurgency at the

local level. Throughout all, it will be critical for police reform and community policing initiatives to ensure that sensitivity to vulnerable populations and privacy and freedom of speech are upheld in order to build community trust, regardless of the communication channel.

# Regional Overview: Central America

## Executive Summary

As a region of study, Central America struggles mightily with high levels of gang violence, poverty, and migration. Reporting often characterizes the region in dramatic terms, with statements declaring Central America to be under siege, or at “undeclared” war. Writing for NPR, journalist Eyder Peralta asserts: “Central America has been engulfed by bloodshed.”<sup>46</sup> In a piece by the Igarapé Institute, the authors state succinctly that this “bloodshed” is a pattern across the region, here highlighting rates of violence in urban areas: “Although Central America’s last civil war ended in the 1990s, many of its cities are affected by warfare in all but name.”<sup>47</sup> The ICT4COP research focuses specifically on the countries of Guatemala, El Salvador, and Nicaragua, each of which share the outlined characteristics. While violent histories of state repression, revolutionary uprisings, and civil conflict in the 1980s are familiar stories in each of the three countries, the patterns of present day gang violence nonetheless diverge. Nicaragua is the notable exception, where levels of violence are significantly lower and community-police relations are rated positively, even in spite of an impoverished country and resource limited government. Nevertheless, in each of the three countries, these histories have meant that military and police forces continue to be intertwined under national control, thus complicating efforts at decentralization or grassroots policing approaches. Guatemala is the largest of the three countries, with approximately 16 million residents, while Nicaragua and El Salvador each have approximately 6 million.

With regard to information and communications technologies specifically, trends in the three countries point to remarkable increases in access to mobile and internet technologies, a pattern seen across the region and the developing world. Even as access increases, however, clear gaps emerge in levels of access between men and women, older and young adults, non-indigenous and indigenous communities, and urban and rural areas. Though community level data on ICT usage can be difficult to find through desk research, it is clear that these gaps in access are also exacerbated by poverty, illiteracy, and the instability brought by migration, all of which are experienced at relatively high levels across each of the three countries profiled here. Nonetheless, each of the desk reports, included in Deliverable 3.2, and the summaries below on the lines of inquiry address how different demographic, market, and political factors affect ICT access, gaps, and usage.

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<sup>46</sup> Peralta, E. (2014, October 28). With A Soft Approach On Gangs, Nicaragua Eschews Violence. *NPR*. Retrieved from <http://www.npr.org/sections/parallels/2014/10/28/359612148/with-a-soft-approach-on-gangs-nicaragua-eschews-violence>

<sup>47</sup> Muggah, R. (2016). Latin America’s Desesperados. *Igarapé Institute*. Retrieved from: <https://igarape.org.br/en/latin-americas-deseperados/>

Consistent with a general lack of awareness about community policing strategies in either Guatemala or El Salvador, as noted by the ICT4COP Work Package researchers, the research also revealed few examples of technologies or communications strategies leveraged to strengthen community police relations, or to promote information sharing around citizen security. Nonetheless, approaches in Nicaragua's community policing point to engagement strategies that effectively reach vulnerable communities and rely on minimal technology, such as neighborhood based police patrols, community mediation by police, or mobile reporting campaigns directed specifically at female victims. In the following discussion on the research's five key lines of inquiry, the summaries address these comparisons across El Salvador, Guatemala, and Nicaragua in greater detail, offering further analysis and speculation on the role of inclusive information and communication technologies in strengthening community police relations and promoting safer, more stable communities across the region. Following the lines of inquiry, a final section on key emerging themes presents regional patterns related to security and community vulnerability, highlighting possible opportunities for leveraging community engagement, communications, and technology.

## Lines of Inquiry

SIMLab's Lines of Inquiry examine the overall technology and communications landscape in the focus countries in greater detail, in an effort to better understand the ways in which people access information with regard to possible threats, security resources, community information, reporting to and from police forces, among a myriad other community security related issues. The lines of inquiry examine five key areas: the people affected; the community and culture in which they live; the market and technology environment; the political economy and environment; and the implementing organization or environment. In this case, the implementing organization or environment refers to the environment in which possible initiatives or pilot projects might take place, and focuses on precedent examples of organizations or pilots that leverage community engagement or technology strategies for sharing information, creating greater accountability, or connecting community and police.

The findings presented below compare lines of inquiry across each of the three chosen Central American countries of El Salvador, Guatemala, and Nicaragua. Comparing and contrasting the experiences in each of the countries, particularly across additional sub themes that address vulnerabilities such as gender gaps, age discrimination, or geographic divides, offers a closer understanding of the peculiarities of the cases, elevates certain findings, and indicates key areas for further inquiry on the part of the research consortium.

The following findings pull from the "desk reports" prepared for Deliverable 3.2, and offer succinct summaries of each in order to present regional comparisons in the three Central American countries in the ICT4COP research. The desk reports make use of ongoing research from the ICT4COP consortium Work Package researchers as well as secondary literature researched conducted by SIMLab to better understand the communications context in which people access technology, get information, and communicate with other community members and service providers, including the police. It bears noting that even as the following summaries attempt to compare findings across countries, the data sources are not the same for each country, and thus are an approximated assessment of how the countries compared regionally. As research continues, these descriptions may eventually be refined for accuracy.

## People

The following section on people examines the role of demographics in how people access information and technologies in the three countries of study. Factors such as income and poverty, gender, age, or literacy levels, all pose significant security vulnerabilities as well as barriers to access for ICTs. Across all three countries, a high percentage of the population lives below the poverty line, creating severe income inequalities that greatly challenge opportunities for the most vulnerable. In Central America, poverty levels often intersect with informality, comprising more

than half of the working population across the countries and making workers more vulnerable to changes or seasonality in employment or extortion by gang members. Poorer populations are also significantly more likely to suffer forced migration and victimization by gangs, and poor women and youth in particular are susceptible to gang recruitment or victimization.

Given the particular experiences and vulnerabilities of youth and women, these are sectors of society deserving of greater attention with regard to community engagement around citizen security. This is particularly important in an effort to end the cycle of gang recruitment and violence seen across all three countries, albeit to a lesser degree in Nicaragua where gang membership and violent crime is significantly lower than either El Salvador or Guatemala. For women, violence occurs at higher rates, and impunity for gender-related crimes is consistently high, which in turn encourages an environment in which women are less likely to report crimes, as they have little reason to believe that any follow up actions will be taken. Though even less data is available, this is also reasonable to expect for LGBTI populations as well, who are often targets of violence and have minimal legislative protections against hate crimes in any of the three countries. While some data reveals that youth are more likely to use ICTs and social media in particular, and have higher levels of literacy than adults on average, women's use of and access to ICTs is harder to determine from the literature. In addition to better understanding youth access to ICTs, this represents a clear area for further investigation through collaboration with the ICT4COP Work Package, or through fieldwork, wherever possible. Additionally, women's literacy is consistently lower than that of men, indicating another plausible barrier to access to communications and technologies requiring written literacy.

Generally speaking, literacy rates are steadily improving in all countries, at approximately 80% of the adult population. In each of the three countries, literacy is significantly lower for vulnerable populations such as women, the poor, or indigenous. These gaps are particularly visible in Guatemala, where 40% of the country's population identifies as indigenous, many of whom speak indigenous languages such as Mayan as a first language, thus further complicating the accessibility of mobile or internet technologies that may rely heavily on the written word. Further discussion of how technologies are used continues in the summary on the market environment, with emphasis on how certain communication approaches can be made more accessible and thus leveraged for strengthening information sharing and relationship building around security issues. At the community level, discussed in the following section, security vulnerabilities and gaps in access to ICTs become clearer when examining geographic differences, migration patterns, as well as community perceptions regarding appropriate public engagement with gangs.

## Community

A closer look at the community level helps to understand how individual characteristics and disadvantages may be aggregated within communities. Communities experience crime differently across geographies, and the movement

of peoples through forced and voluntary migration across the country and region is also tied into vulnerability and instability overall, thus creating disruptions in access to information, communications, and technologies. Even a brief look at crime and violence in the region reveals that a normalization of crime, particularly extortion and corruption, has taken place to a certain degree across all three countries, albeit to a lesser degree in Nicaragua, where crime is less prevalent. Nonetheless, even though just 3% of Nicaraguans report crime as their country's "most pressing problem,"<sup>48</sup> research reveals that less than half of Nicaraguans report crimes to the police, for fear of retribution, perceptions of impunity, or lack of knowledge about the process. Low levels of reporting to the police or government are standard across all three countries, indicating a clear lack of awareness, trust, or appropriate communication channels between community members and police or government.

Notably, urban and rural areas have very different experiences of insecurity, and at the same time, very different access to technology, compounded by a number of other factors that also affect access, such as levels of income or literacy. Urban communities are more literate on average, and also higher income earning, earning nearly twice as much than in rural areas. However, even as increasing numbers of the regional population move to urban areas, Central America remains a highly agricultural region and rural communities continue to constitute 40% of the population across El Salvador, Guatemala, and Nicaragua. Rural communities have particular security needs, as they are more likely to suffer from land encroachments or theft of property, whereas urban communities are more likely to experience violence and extortion. Geography also plays an increasingly important role in access to services, and ICTs is no exception, in which ICTs, with the exception of radio, are consistently accessed at higher levels in urban areas, thus implying that communications strategies must be adapted not only to the conflict realities in urban or rural communities, but also to the types of technologies or communications available in particular geographies. In some areas, rural communities are also indigenous, which will require another layer of adaptation to ensure that illiterate individuals or non-Spanish speakers have access to accessible information.

Migration, whether forced migration or displacement due to violence, or economic migration in search of job opportunities, is common in all three countries. In El Salvador in particular, displacement and migration continues to take place at high levels, with upwards of 280,000 Salvadorans displaced in both 2014 and 2015.<sup>49</sup> El Salvador also presents a particular reality because of the high numbers of deportations from the United States that have brought Salvadorans involved in gang activity in the United States back to the country, where they have continued to establish networks of extortion and violence. In Nicaragua, by contrast,

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<sup>48</sup> Replogle, J. (2014, July 29). Why Nicaraguan Kids Aren't Fleeing to U.S. *KPBS News*. Retrieved from <http://www.kpbs.org/news/2014/jul/29/why-nicaraguan-kids-arent-fleeing-to-the-us/>

<sup>49</sup> Albaladejo, A. (2016, February 18). No Life Here: Internal Displacement in El Salvador. *Latin America Working Group (LAWG)*. Retrieved from <http://www.lawg.org/action-center/lawg-blog/69-general/1588-no-life-here-internal-displacement-in-el-salvador>

migration is internal or regional, with Nicaraguans often migrating to Costa Rica or Panama in search of agricultural work, rather than fleeing violence explicitly. These conditions of migration and mobility may also play into how Central Americans are able to access information and services, and the instability of lifestyle and income implies that a significant proportion of a given country's population is likely to have inconsistent access to information or technologies such as a mobile phone or the internet, particularly as they move across borders.

Lastly, a comparison across the three countries reveals that the role of gang members in society is one that is difficult to reconcile at the local level. In Guatemala and El Salvador, where gang membership is high, police are highly suspicious of most community members in territories known to fall under gang control. Indeed, the pervasiveness of gang presence and the lack of prosecution of gang members has created an environment in which community members are unlikely and unwilling to report crimes for fear of retaliation, greatly impacting their communication with the police. In El Salvador in particular, high profile negotiations between gang members and the government towards a "truce" have met with community opposition, whether over the corruption charges levied against government officials in collusion with gang members, or out of a broader discomfort with the possibility of pardoning and reintegrating former gang members back into Salvadoran society. In El Salvador in particular, a clear need presents itself to encourage transparency and increase community awareness around the negotiations process, and to engage with public opinion on how former gang members can be most effectively and fairly reintegrated into Salvadoran society. In the following discussion on market environment, the report summarizes overall trends in access to information and communications technologies in the region, with a focus on how these levels of access can be both challenges and opportunities for strengthening community police relations in the region.

## Market Environment

Across all three countries and Latin America more broadly, access to mobile and internet technologies has steadily increased in recent years. Where differences lie, however, are in gaps in coverage, and lingering challenges to access. While approximately a quarter of households have access to a computer, levels of access to the internet at the household level are typically under 20%, indicating that internet access is shifting to mobile rather than computer-based access. Nonetheless, this access is limited to begin with, leaving a sizeable portion of the population left out of information communicated via web pages or web applications. In El Salvador for example, internet access is significantly higher in urban areas, with 33.1% of urban individuals reporting access to the internet, while just 10.3% of the country's rural population reported access.<sup>50</sup>

Though increasing competition among mobile providers has built an improved network system, and while SIM card and cell phone ownership rests well above 100

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<sup>50</sup> International Telecommunications Union (ITU). El Salvador Profile. *ITU*. Retrieved from <http://www.itu.int/icteye>

registrations per 100 users, penetration is estimated at approximately 80-90% of the population across all three countries. This tends to be slightly higher in urban areas, at around 90%, and 70% in rural areas. Given survey responses indicating that the percentages of households using mobile phones is lower than percentages of individuals, this may indicate that mobile phones are shared within the household. This raises important questions about how mobile phones are shared when power dynamics exist between male and female household members, for example, and serves as a powerful reminder that no assumptions can be made about consistent access to mobile technology, even when reported by users. Additionally, even with increased penetration and competition across the region, mobile service has proven to be very unaffordable in Nicaragua, particularly as compared to other neighboring countries, and even though it remains among the poorest countries in Latin America. Given this high cost of mobile, this implies that even with high penetration, mobile technology users who are lower income may be very likely to suspend service or opt out of buying credit for periods of time to reduce costs, thus interrupting any communications that are mobile-reliant.

Additionally, it bears emphasis that an estimated 20% of the regional population has no cell phone whatsoever, whether with internet capability or otherwise, meaning that for engagement strategies to be effective, they must also consider low-technology or low-connectivity approaches such as radio broadcasts or community meetings in order to reach the "last mile." Even as access grows, it is these type of gaps that are paramount to consider, as the research continues to look for areas of opportunity in leveraging communications for community policing engagement. Technologies such as radio remain particularly relevant for providing coverage to indigenous communities, rural areas, and for households living in poverty. In addition to performing well in low-connectivity environments, radio is also useful for communicating in societies that may not be fully literate in written communications, whether in Spanish or indigenous languages. In the following section on the political environment, the research considers how policing approaches, as well as the governance of technology and information, impact the local level experiences of security provision and information sharing in the three focus countries.

## Political Environment

Political histories of dictatorship, corruption, and general distrust in government plays an important role in each of the three focus countries. However, this cannot be solely attributed as the explanatory factor for present day violence or the failure to realize effective police reform. While police reform has been attempted in all three countries following civil conflict in the 1970s and 1980s, community policing strategies have been minimally adopted in El Salvador and Guatemala, where police are seen as corrupt actors in collusion with criminal actors. Nicaragua, however, has excelled in maintaining high levels of trust in police, grassroots policing strategies, and keeping violent crime at lower levels, with a decidedly softer approach than the *mano dura* or "iron fist" approaches seen in El Salvador and Guatemala. Even so, Nicaraguan police forces suffer from many of the same complications and challenges as those seen in El Salvador and Guatemala, with

poorly paid force members, national level control that can restrict community initiatives, and frequent support from military forces, which can often escalate efforts to curb violence and make community members feel less safe. Both countries also face challenges of corruption and incompetence in the judicial system, and a prison population that greatly exceeds the country's capacity, contributing to ongoing gang control and violence.

MOPSIC, a data-driven community policing strategy in Guatemala has emerged as one possible approach, but significant work remains to ensure that communities are aware of the programs through appropriate outreach, and to bolster the work of the program to extend the capacity of the police officers themselves, rather than the data analytics of the force, for example. Against this backdrop, policies regarding information sharing and technology have begun to emerge, particularly as mobile usage grows in popularity. Given the pervasiveness of gang networks, some examples have emerged of government mandates to block cell phone network providers from servicing areas in and around prisons in El Salvador, for example, in an attempt to disrupt criminal activity made possible through cell phone communications by imprisoned gang leaders and members. While an understandable step toward limiting gang control, this is a powerful precedent for government control over cell phone communications and one that could potentially limit freedom of communications or speech to the civilian population if applied more broadly in the future. The pervasiveness of the gang population in El Salvador and Guatemala is also one of the motivations for government intelligence gathering and surveillance tendencies, and in Guatemala, this has manifested itself in the form of military intelligence that continue to operate clandestinely through operations known as CIACs, which are a holdover from the country's civil war decades earlier. Even in an increasingly hostile environment for technology policy and population surveillance, positive examples have nonetheless emerged, outlined below in the following section on the implementing environment in which ICT related community engagement initiatives can emerge.

## Implementing Environment and/or Pilot Project Parameters

All countries have seen different degrees of involvement by nonprofits, multilateral organizations, and governments in engagement around relationship building between community members and government, or the police. While some examples have attempted to leverage technologies or communication strategies, these precedents have been difficult to identify in the process of desk research, and reveal that very few examples actively bring community and police together for information sharing or relationship building. Isolated examples include using community members as information "antennas" in El Salvador, or a mobile application rolled out for incident reporting in Guatemala. For policing, Nicaragua remains the key regional precedent for grassroots organizing and policing around community safety, profiled in greater detail by ICT4COP researchers, as well as in the 3.2 desk review. Examples in Nicaragua include "community patrol," in which officers regularly interact with community members in an accessible way, providing opportunities for trust building as well as information sharing and reporting. Nonetheless, the research does not reveal that any new use of ICTs is explicit in the

Nicaraguan approach, but is rather bolstered by face-to-face community communications. In precedents that are less focused on the community and instead on general accountability, the CICIG in Guatemala offers a powerful example for leading with a human rights agenda against impunity, and has garnered significant public support for that reason, and represents a clear opportunity for broadening the community conversation around crime reporting, human rights abuses, and government corruption. Overall, the region's growing use of ICTs offers a promising environment in which to explore ways to leverage new and commonly used technologies to increase information sharing around critical security issues, and to strengthen community police relations. However, given the clear gaps seen in the accessibility of technologies, whether due to gaps from challenges such as affordability of mobile access in Nicaragua, high numbers of rural, indigenous communities in Guatemala, or income instability imposed by informality in El Salvador, any initiative or pilot to be implemented would require careful consideration of how to structure access and information for more vulnerable groups who still find themselves without consistent access to information or technology. In the following section, the report identifies key themes pertaining to security and policing across the region. The themes represent possible areas for further exploration, and opportunities for engaging with emerging regional issues affecting local communities.

## Key Emerging Regional Themes

Numerous key themes emerge from the desk research in each country and across the Central American region. While not all were covered specifically in the desk review, these offer possible opportunities for future research or areas of engagement, in which ICTs and inclusive technologies could play an important role in bridging the gap between communities and the government, police, or other security providers. If the opportunity to conduct fieldwork emerges in any of the three countries, these will be key thematic areas with which to engage.

### Non-police forces: Addressing the militarization and privatization of security

A common regional pattern is the militarization of the police force, as the nationalized police forces are often resource limited and may rely on military forces for specific anti-gang efforts, for example. If it is reasonable to expect that the military will continue to buffer police forces, even under growing efforts at police reform, there will be a clear need to adjust the approach of military-trained force members so as to encourage more favorable community engagement. In addition, the research reveals that an increasing number of households or neighborhoods are contracting private security, noted in the Guatemala Desk Report. While fulfilling a decidedly different role than a military member, this is again another example of a security agent that has a distinct orientation to the community. While private security serves to secure individual households or housing developments, this may not contribute to overall community or neighborhood safety.

## “Bad actors:” Engaging and rehabilitating returning deportees, gang members, and the prison population

Given the sheer magnitude of migration out of El Salvador and Guatemala, the ongoing cycles of violence in both countries, particularly El Salvador, have been bolstered in part by returning deportees. Deportees may have been involved in gang violence in major cities in the United States, for example, and return back to their home countries with intentions to continue operating within those networks. Similarly, violence and criminal networks continue unabated by imprisonment in the countries' overwhelmed prison systems, thus meaning that little to no rehabilitation takes place. Even as major peace negotiations have taken place in El Salvador, community level perceptions over how gang members should be dealt with has varied greatly. Major multilateral organizations and the Catholic Church have been involved in engaging with tentative peace processes or prisoner rehabilitation but this is a major area deserving of greater attention, and one that could be powerfully leveraged through community campaigns around awareness of ongoing gang negotiations and peace processes with the government, promotion for rehabilitation programs, or other local initiatives.

## Gender discrimination and femicide: Bolstering security through women's and LGBTI rights

Sexual and gender based violence rates are high across the region, and compounding this are high impunity rates for SGBV crimes, if and when they are indeed reported. In Guatemala, femicide has lower rates of conviction than any other type of crime. Rights for LGBTI individuals are minimally protected by legislation. This is a key area of opportunity, particularly around creating opportunities for accessible reporting mechanisms and strategies for structuring accountability mechanisms for police, as well as the judicial system, at the local level. Leveraging community feedback would be a clear way to allow communities to see more clearly the repercussions for criminals in the face of reported crimes.

## Youth vulnerability: Disrupting cycles of violence through youth engagement

Across the region, these countries tend to be young societies with high proportions of youth. Youth experience higher levels of poverty, and are frequently left vulnerable to gang recruitment and victimization, and even experience higher levels of homicide. Engaging and empowering youth is a global theme in disrupting cycles of violence and gang control and putting a positive step forward toward development. As youth levels of literacy increase, and as youth continue to engage more with ICTs, there are clear opportunities for engagement around accessible technologies tailored to youth.

## Community justice: Incorporating indigenous justice, governance, and law systems

In each of the countries, and in Guatemala in particular, a significant portion of the rural population is indigenous. With indigenous traditions come some examples of community-based justice systems that while representative of local traditions, may not be in accordance with local laws. As part of a broader effort at police reform,

addressing and integrating these local approaches to justice will be a key area of opportunity for engagement between police forces and community members. These communities also make particular use of ICTs, relying more heavily on radio and face-to-face communications, and thus will require a particular effort to ensure that community members' voices are properly represented and information is adequately transmitted.

## Police precedents: Leveraging lessons from Latin American leaders

One of the clear advantages of this regional selection is to take advantage of Nicaragua's lessons in successful grassroots and community policing, and understand how a resource-limited government and police force has been able to meet public standards, even while struggling with ongoing corruption and crime. This type of regional, or even "South-South" learning, offers great promise, and stands in contrast to the typical tendency to adapt lessons from places like New York City. Though other major cities may face similarly high levels of violence, the mobile and technology landscape is likely to be markedly different, and the application of similar technologies thus runs the risk of creating further vulnerabilities or gaps in access to information than were present prior. Rather, initiatives might instead focus around tangible engagements such as the creation of "community security plans," giving police and community members the chance to connect in a forward-focussed manner and together prioritize key areas of work.

## Conclusion

While access to mobile technologies and internet has increased significantly in the last decade, clear gaps are still seen between household and individual access, and higher rates of access for men and women, as well as for urban and rural populations. For the country's most vulnerable such as those without formal education, working in the informal economy, or non-Spanish speakers, access to communications and technologies may be exceedingly limited, and thus an unreliable way to effectively engage community members around security. While some efforts at community policing have newly emerged in Guatemala, grassroots community engagement remains limited in both Guatemala and El Salvador, and even in Nicaragua where community policing strategies are far more common, criticisms of the approach note that COP often equates with abuses of power by local leaders, rather than more inclusive community representation.

# Regional Overview: Eastern Europe

## Executive Summary

The ICT4COP research covers the three Eastern European countries of Bosnia and Herzegovina, Kosovo, and Serbia. In Eastern Europe, SIMLab has been able to conduct desk research and fieldwork in all three countries between November 2016 and April 2017, examining the communications and technology landscape and how this impacts communities' perceptions and experience of security, including their relationship with the police or other security providers. The following report summarizes findings from the desk research conducted in advance of the fieldwork as well as the context analysis reports for each country. The context analysis reports build on the findings that emerged from the Key Informant Interviews and Focus Group Discussions conducted in one urban and one rural site in each of the three countries, during which research subjects were of mixed gender, age, ethnic backgrounds, education levels, and income.

Of the entire set of eleven ICT4COP countries, Eastern Europe is perhaps most accurately labeled "post conflict," as all three countries have enjoyed relative stability and peace following the large-scale ethnic conflict during the 1990s. Conflict remains an issue, however, and manifests in several forms. At the national level, political recognition of federal entities, as in BiH, or international recognition of Kosovo as an independent state, remain ongoing points of tension and potential conflict. At the local level, ethnic integration and discrimination remains a major challenge for ethnic groups who were displaced during the 1990s conflict. This is exacerbated by generally high rates of unemployment and unstable income, experienced relatively equally for men and women, and leaving high numbers of youth without economic opportunity.

In this post-conflict context, ICT use has expanded, with high mobile penetration rates of above 90%, and high rates of television ownership. Although literacy rates are high across the region, with illiterate populations of just 2-3%, significant gender gaps present themselves, and women consistently have higher rates of illiteracy and reach lower levels of education. Research findings also indicate that "technological illiteracy" remains high, particularly among the elderly, in which users feel uncomfortable navigating new technologies effectively. Ethnic minorities, such as Albanians in Serbia, also report having difficulty accessing municipal or national resources written in predominant languages, thus complicating their ability to access services online. Therefore, even though the region has the highest combination of literacy and mobile penetration of the ICT4COP focus countries, gaps in access nonetheless remain, challenging the consistent use of ICTs, and indicating the clear need to ensure that more sophisticated technology initiatives, such as mobile reporting for crimes, are also combined with more accessible means such as call hotlines, or message boards.

## Abbreviations

BIH	Bosnia and Herzegovina
COP	Community oriented policing
FBiH	Federation of Bosnia and Herzegovina
FGD	Focus group discussion
GBV	Gender based violence
ICTs	Information and communications technologies
KII	Key informant interview
LGBTI	Lesbian, gay, bisexual, trans, and/or intersex
LSC	Local safety councils
RS	Republika Srpska
SIM	Subscriber identification module
SMS	Short message service

## Lines of Inquiry

SIMLab's Lines of Inquiry examine the overall technology and communications landscape in the focus countries in greater detail, in an effort to better understand the ways in which people access information with regard to possible threats, security resources, community information, reporting to and from police forces, among a myriad other community security related issues. The lines of inquiry examine five key areas: the people affected; the community and culture in which they live; the market and technology environment; the political economy and environment; and the implementing organization or environment. In this case, the implementing organization or environment refers to the environment in which possible initiatives or pilot projects might take place, and focuses on precedent examples of organizations or pilots that leverage community engagement or technology strategies for sharing information, make services more accessible, creating greater accountability, or connecting community and police.

## People

The following section on people examines the role of demographics in how people access information and technologies in the three countries of study. Factors such as income and poverty, gender, age, or literacy levels, all pose significant security vulnerabilities as well as barriers to access for ICTs. All three countries are multicultural, multiethnic, and multilingual. Across the region, countries saw significant demographic shifts as groups migrated and fled in the face of ethnic violence in the conflict and post-conflict period. For example, in the city of Banja Luka, one of the research sites in Bosnia and Herzegovina, the overall Serbian population more than doubled in size following the conflict, whereas the Bosniak and Croatian population lost nearly two thirds of the pre-conflict population. BiH on the whole lost an estimated one million people in population, for example. Kosovo, by contrast, saw a significant decrease in the country's Serbian population, and an increase in overall ethnic diversity, including an increase in the overall Albanian population, now the country's majority.

Unemployment rates are high across the region on the whole, though major urban centers tend to have lower unemployment rates. Interestingly, even in spite of gender inequalities in literacy rates and educational achievement, unemployment tends to be fairly split between men and women, though unemployment and poverty levels are higher for youth, an important signal of their vulnerability to criminal behavior, or even recruitment into violent extremism, to be discussed later on in the report. Although domestic and gender based violence is broadly perceived as a social problem by men and women alike, there are nonetheless limited resources, such as shelters, for women to seek assistance for domestic violence. Illiteracy is generally low across the region and continues to decrease, at rates of just 2-3% in each country. However, in Kosovo for example, while the average illiteracy was just 3.2% nationally, levels were as high as 12.5% for women, demonstrating a clear gender gap and need to carefully consider how this might

impact women's ability to effectively use a mobile phone interface, or mobile or computer applications, for example.

## Community

A closer look at the community level helps to understand how individual characteristics and disadvantages may be aggregated within communities. Notably, urban and rural areas have very different experiences of insecurity, and at the same time, very different access to technology, compounded by a number of other factors that also affect access, such as levels of income or literacy. As outlined in the above section on people, the region saw significant migration and displacement during the conflict years, leaving divisions in ethnic composition along geographic and federal lines. Community concerns over safety vary slightly by country and research site, but largely indicate the extent to which perceptions of violent conflict have receded, leaving concerns that primarily focus on issues such as organized crime, political corruption, domestic violence, or drug addiction. Though the region is experiencing peacetime, tensions nonetheless remain. In BiH, this comes in the fragile governance cohesion between the country's two main entities of the Federation of Bosnia and Herzegovina (FBiH) and the Republika Srpska (RS). In Kosovo, the country's two main ethnic groups, Albanians and Serbs, still have reportedly poor integration, and fear of violent incidents, including ethnic violence as recently as 2004, remain present in the public conscience. In Serbia, ethnic discrimination against the Roma is a concern, where the Serbian population is predominantly Orthodox Christian, at 84.%. While still uncommon, there are growing concerns over radicalization or growing extremism, particularly given Kosovo's sizeable muslim population, for example.

## Market Environment

Across all three countries, research and responses from focus group discussion (FGD) participants noted high levels of use of radio, television, and mobile phones at the individual and household level. Radio in particular was noted as a source for local and current events. Participants largely agreed that ICTs and technology innovations have improved their quality of life, although some noted a loss due to fewer opportunities for face-to-face communication.

Mobile phones appears to be part of a normal lifestyle for people across the region regardless of their age, and given the widespread availability of pre paid mobile cards and sites of purchase for mobile credit, appear to be relatively accessible even for those with lower incomes. In Kosovo, for example, penetration rates are as high as 97.7%,<sup>51</sup> and estimated at anywhere between 90.3% to 130% in Serbia,<sup>52</sup> with inflated penetration rates likely attributable to users owning more than one SIM card, a pattern that was corroborated by FGD participants.

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<sup>51</sup> Morina, D. (2016). Kosovo Hails Receipt of Own Telephone Code. Balkan Insights. <http://www.balkaninsight.com/en/article/383-kosovo-s-dial-code-12-15-2016>

<sup>52</sup> Statistical Office of the Republic of Serbia (2015). *Household survey*. Retrieved from: <http://pod2.stat.gov.rs/ObjavljenePublikacije/G2015/pdf/G20156007.pdf>

Respondents also noted the utility of free wireless internet, such as public wifi on some buses, for example to lower costs of use, and thus substituting mobile provider services with Viber or other wireless enabled communication platforms, and only using SMS or telephone calls when an internet connection is not available. This is particularly true in BiH, where the vast majority of mobile users, at more than 80% of the market, utilize pre-paid credit, rather than a mobile contract. This is a contrast to Serbia, where 50.4% of the mobile market utilizes postpaid, or contracts, while 49.6% are prepaid subscribers.<sup>53</sup> While prepaid options make mobile more accessible for those who have lower or more unstable incomes, it nonetheless signals that mobile users may have frequent interruptions in their service if and when credit runs out.

Computer and internet use is also high, at approximately 72% of the population in BiH,<sup>54</sup> or 64.4% of the population in Serbia,<sup>55</sup> and is mainly accessed through fixed rather than mobile broadband. It was frequently noted in FGDs that internet is used much less frequently by the elderly. In Serbia, for example, older FGD participants noted a preference for using non-smart mobile phones, and noted less reliance on the internet than younger participants. While participants noted some instances of municipal services available through mobile applications, this was true only in large urban areas such as Banja Luka, rather than the other research site of Derventa. On the whole, Serbia appears to have higher levels of “e-governance.” FGD respondents noted that the use of alerts or alarms in the case of emergencies or natural disaster is not common, but would be welcomed as an ICT adoption by municipal or national governments.

Media influence and mistrust of media outlets also came up as a key theme, and in Kosovo, for example, FGD respondents noted the influence that the Serbian media has over Kosovo’s Serbian ethnic minority. In the research site of Gracanica, a Serbian enclave within Kosovo, respondents noted the Serbian political leadership’s blatant use of media for political messaging. Perhaps in an effort to move beyond several decades of constant reminders of violence and trauma, most respondents noted that politics, sports, or weather are preferred topics for news, rather than information regarding safety or security. In Serbia, FGD respondents noted that radio coverage tends to focus on larger cities, and lamented the closure of a local radio station in the research site of Novi Becej, representing a lost opportunity for locally focused news and reporting.

Though not an overwhelming concern for FGD participants, some discussion centered around online security and privacy, harassment, or surveillance, to be discussed in greater detail in the following section on the political environment.

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<sup>53</sup> RATEL (2015). Retrieved from: [http://ratel.rs/upload/documents/Pregled\\_trzista/rate-pregled-trzista-za-2014-ENGLESKI-web.pdf](http://ratel.rs/upload/documents/Pregled_trzista/rate-pregled-trzista-za-2014-ENGLESKI-web.pdf)

<sup>54</sup> The ICT Development Index (IDI)-BiH Country Card  
<http://www.itu.int/net4/ITU-D/idi/2016/#idi2016countrycard-tab&BIH>

<sup>55</sup> Statistical Office of the Republic of Serbia (2015). *Household survey*. Retrieved from: <http://pod2.stat.gov.rs/ObjavljenePublikacije/G2015/pdf/G20156007.pdf>

Female respondents in particular noted patterns of online harassment and targeting of women.

## Political Environment

Governance across the region is often characterized as poor or ineffective, in large part due to ongoing struggles for political recognition or independence, such as BiH's two federal entities, or Kosovo's struggle for formal independence from Serbia. Overall, with regard to community oriented policing (COP), research participants reported little familiarity with the concept, but acknowledged the potential benefits of the approach. Though the Serbian government implemented a Strategy for Community Policing in 2013, for example, there have been very few concrete examples of COP strategies, and FGD respondents there noted having very minimal interaction with the police in the public sphere. In general, research participants reported an unfavorable view of the police, expressing mistrust for police and their ties to political leadership. Broadly speaking, there is limited understanding of the term community oriented policing, or COP, even in spite of existing local structures such as the "Local Safety Councils" at the municipal level in BiH, and there were no examples shared of instances of the police reporting back on safety issues or following up on events. Even in the case of an immediate threat, FGD respondents noted that they might be more likely to call family members or colleagues rather than the police, in order to ensure a more timely response. Mistrust of police is particularly strongly felt for ethnic minorities, such as in Kosovo, where the Serbian minority noted feeling hesitant to interact with the police for fear of discrimination or mistreatment. In Kosovo, KIIs with police representatives indicated that police themselves also feel frustrated by the prospect of COP because of the centralization of the police hierarchy and training process, limiting their ability to adapt their communication approaches to the local context.

With regard to data security and surveillance, a number of respondents indicating facing challenges to online data security and privacy, which was more prevalent in urban rather than rural areas, and noted as a particular issue for women or LGBTI communities facing online harassment or targeted hacking. For youth, FGD respondents noted an increasing prevalence of cyberbullying.

In BiH, for example, there are number of government agencies equipped to conduct surveillance on individuals, which may even result in individuals being surveilled by multiple agencies at a time. In Kosovo, concerns were shared over instances of police surveillance of political commentary on social media, recent attacks on journalism, or hate speech regarding ethnic minorities, all pointing to troubling violations of freedom of speech. In Serbia, younger citizens appeared to have greater concern over data and privacy, while older FGD respondents tended to favor surveillance of any kind, whether online or via video cameras.

Generally, FGD research subjects expressed hesitation related to crime reporting a crime, largely for fear of retribution. In BiH and Serbia, the main concern was a stated lack of privacy in the reporting process, or a possible leak of information

by police. In Kosovo, FGDs noted that they would be more likely to report smaller or more minor crimes, as the fear of retribution would be lower.

## Implementing Environment

As addressed above, there have been few instances of effective or recognizable community oriented policing in any of the three countries, let alone examples that leverage ICTs as part of the community engagement strategies. Nonetheless, a number of different examples from across the region point to possible precedents for integrating ICTs into COP in effective, inclusive ways. Although useful and promising examples, these nonetheless represent precedents for leveraging ICTs for community engagement or community services that are largely disconnected from one another, and not explicitly focused on building community police engagement or information sharing.

In BiH, research indicates that police stations are expected to report annually on the work of their Local Safety Councils (LSCs), which includes the work of providing community education programs and trainings. This transparency is important to note, as it encourages police to promote their ongoing community work, and ensures that community members are aware of positive opportunities to engage with police in the future. Another example in BiH is an “SOS” telephone hotline, offered by an organization known as United Women, in an effort to address domestic violence by providing counseling and services for victims of domestic or gender based violence (GBV).

Kosovo, much like BiH, has municipal level instances of community engagement around safety and security, including the following associations: Local Committee for Public Safety (LCPS), Municipal Committees for Public Safety (MCPS) and Action Teams for Public Safety (ACPS), the final of which is a more grassroots approach. However, FGD respondents were largely unaware of these opportunities to engage in community security efforts, KIIs from the police noted minimal integration with the Kosovo Police (KP), and the organizations themselves may overlap in functions, thus causing greater confusion. Several examples of ICTs offer a window into possibilities for how communications can be strengthened between communities and the police. One example is “Girls Coding Kosova,” an organization that trains young women in IT skills, in an attempt to address the gender gap in the IT sector workforce, and has developed an application for reporting incidents of street harassment. More broadly, “Open Data Kosovo” serves as an open data resource for data across Kosovo, including open information on emergency calls for example, providing an important basis for data analysis that can help improve police response. Another organization, Communication for Social Development (CSD), has developed an android-based mobile phone application known as “Language Officer” to translate official documents from Albanian, the country’s official language, into Serbian. While these are useful examples of utilizing ICTs to address specific societal needs, these do not directly involve community police engagement, and are also uniquely mobile, therefore meaning that individuals without smartphones or easy access to internet are excluded.

In Serbia, community safety was similarly unfamiliar to most FGD participants, even in spite of a DFID sponsored community pilot program in years prior, in which police officers were assigned as “community police” to specific neighborhoods. Serbia also has “municipal safety councils,” intended to serve as a partnership between the municipal government, police, and citizens. However, FGD participants were largely unaware of the councils, which may owe in part to the fact that the council’s do not have an operational budget. In Belgrade, FGD participants noted the utility of the municipal “E-governance” website, known as E-Uprava, which allows access to municipal services online, such as license renewal. In addition to online services in Belgrade, FGD respondents also noted that some smaller municipalities have websites or mobile applications dedicated to reporting on public safety related issues, such as trash or informal business, or for services such as paying for parking or public transportation. Serbia also has the example of a “crime stopper” telephone hotline, created and operated by the Serbian Ministry of the Interior, intended to make crime reporting easier for the deaf and hard of hearing.

## Key Emerging Regional Themes

Overall, several key themes emerge from the desk research and fieldwork in each country and across the region. While not all were covered specifically in the reports in Deliverables 3.3 or 3.3, these offer possible opportunities for future research or areas of engagement, in which ICTs, and inclusive technologies specifically, could play an important role in bridging the gap between communities and the government, police, or other security providers.

### Lack of awareness of community policing and existing programs

Across all three countries, a clear lack of awareness emerged not only regarding community oriented policing, but also with respect to existing local programs focused on safety initiatives. For example, all three countries have councils at the municipal level that are intended to bring together municipal government officials, citizens, and police, but were largely unknown to FGD participants or KIIs during the fieldwork. The existence of these programs is a promising precedent for civic engagement around public safety, and represents a potential platform for police to participate in more directly. Depending on police flexibility to design engagement with the public at the local level, this could take the form of community meetings, workshops, or trainings. Applying strategic communications strategies might make these existing councils more accessible for community members, by creating strategies for logging meeting minutes on an online website in addition to publicity through community bulletin boards, or recruiting a broader set of community participants through social media and SMS messaging campaigns, and taking advantage of the region’s relatively high use of internet and mobile phones.

### Ethnic integration and representation

A clear community level issue across all three countries is the challenge of ethnic integration in the post-conflict era. In each country, tensions and conflicts exist between different ethnic groups, whether Albanians, Serbs, or Roma. Even aside from interethnic conflict, ethnic minorities often fear discrimination by government officials or police, a key issue that needs to be addressed through the design of any

future community oriented policing strategies. While a major structural change might be to increase hiring of police officers from minority groups, a more realistic change might be sensitivity training that explicitly addresses ethnic differences, and recommended communication strategies that might make minority communities more receptive to police, and vice versa. Additionally, although literacy rates are high, the reality of a multilingual society remains, and any initiatives involving ICTs should carefully consider in what languages community members, particularly ethnic minorities, will feel comfortable reading or responding to written messages. The example of the CSD “Language Officer” in the above section on implementing organizations provides one example of how sensitivity to language can help bridge the gap between communities and their government.

### School-based violence and youth vulnerability to extremism

During the fieldwork, respondents noted patterns of cyberbullying and school-based violence as troubling trends for youth across all three countries. Particularly with high rates of youth unemployment, the vulnerability of youth to criminal behavior, targeting by bullying, and even violent extremism, are all key issues to consider moving forward. Given that the region is currently “post-conflict,” rather than facing the levels of insurgence seen in the countries of focus in the ICT4COP research, means that the region presents a favorable moment at which to respond to the potential future challenges of youth extremism. As the research indicates that youth tend to use internet technologies at higher rates than adults, internet, mobile phones, and social media are possible tools for engagement. The internet could be used as one primary media through which curricula that promotes acceptance of ethnic and religious differences could be disseminated, or social media campaigns could be launched by police and security providers to promote awareness around the dangers of recruitment into extremism. In order to ensure a broad reach, however, and to work toward positive community-police relations at the local level, these efforts would need to be echoed through in-person workshops or trainings in schools, for example.

### Concluding Remarks

Overall, a closer look at Bosnia and Herzegovina, Kosovo, and Serbia reveal a useful initial picture of Eastern Europe in the post-conflict context. ICT use has expanded, with mobile penetration rates of above 90%, high rates of television ownership, and growing access to internet, particularly among youth. Although literacy rates are consistently high across the region, with illiterate populations of just 2-3%, significant gender gaps present themselves, and women consistently have higher rates of illiteracy and reach lower levels of education. Therefore, even though the research presents a relatively sound picture of access to ICTs, potential gaps in access nonetheless remain. For example, many users across the region rely on pre-paid credits rather than contracts, noting the high costs of mobile use as compared to the region’s low and unstable incomes, meaning that consistent access to mobile devices may be inconsistent or interrupted. Overall, communications strategies to approach communities across the region must carefully consider the gaps that fall along age, gender, and ethnic lines. This is particularly true as municipal governments begin to bring access and services online or into mobile

formats, it is critical that these services also include duplicative efforts that are still efficient and accessible for the elderly, those with low literacy, or inconsistent access to mobile or smartphones, for example.

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