Technology, the environment and a sustainable world: Responses from the global South
Global Information Society Watch 2020
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Sida

APC would like to thank the Swedish International Development Cooperation Agency (Sida) for their support for Global Information Society Watch 2020.

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APC-202104-CIPP-R-EN-DIGITAL-330

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Introduction

Those working to defend the environment confront many different online and offline threats. In 2019, 80% of environmental defenders surveyed by the Swedish Society for Nature Conservation said that the foremost risks they faced were “surveillance (physical and digital), smear campaigns, and death threats.”¹ Defenders are increasingly slandered, harassed and killed for protecting their land or opposing commercial projects such as mines, dams or plantations that are related to powerful interests.² The murder of environmental defenders in particular doubled between 2002 and 2017.³ Over 100 of the 304 human rights defenders killed in 2019 worked on land, Indigenous peoples’ and environmental rights,⁴ with Colombia and the Philippines being the top two deadliest countries.⁵

Attacks against environmentalists are occurring at a time when addressing pressing issues like climate change, infectious diseases and deforestation requires coordinated efforts across the world. The internet and social media have enabled activists to transcend political and geographic boundaries, creating a “global civil society”,⁶ but growing reliance on technology also makes civil society vulnerable to online threats.⁷ This article unpacks the physical and digital risks faced by environmental human rights defenders in three Southeast Asian countries known for their rich natural resources – Cambodia, Indonesia and the Philippines – and suggests action steps that can be taken to mitigate them.

Context

Citizen Lab researchers have documented targeted online attacks against non-governmental organisations (NGOs) working on environmental issues since 2015.⁸ These attacks were not isolated cases, but part of a wider campaign against the government and NGOs in general. The difference is that while governments (and the private sector) have advanced security support in-house to respond to such attacks, NGOs typically do not.⁹ Although there is a greater number of digital security training sessions or workshops for NGOs, these services are typically short-term solutions and do not serve the long-term needs of the community.

While digital attacks against states and the private sector would make headlines, similar attacks against environmental defenders do not necessarily result in widespread attention. This lack of visibility is in part because most of our knowledge of attacks comes from commercial threat reporting. Firms that conduct digital threat analysis (e.g. incidents of malware attacks) predominantly focus on prominent (and profitable) victims, such as major corporations. Meanwhile, attacks against civil society, which may not have sophisticated digital defences, tend to be

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¹ Research undertaken in this report was supervised by Professor Ronald J. Deibert, principal investigator and director of the Citizen Lab. We would also like to thank Stephanie Tran and Justin Lau for research assistance. This article would not be possible without the 15 environmental defenders in Cambodia, Indonesia and the Philippines who shared their experiences with us. We dedicate our report to all those who are taking a stand to defend human rights and the environment.


¹⁰ Ibid.
overlooked or underestimated. This selection bias not only impedes the development of a more holistic picture of cybersecurity – as the scope and scale of attacks against civil society remain largely unknown – but also creates debilitating consequences for civil society, which suffers from attacks in the dark.

Digital threats targeting NGOs or individuals working on the environment in the global South are likely to be more severe. Reliable funding is necessary to make meaningful improvements in organisational security, but activists there face obstacles in obtaining sustainable funding, especially when they have to depend on international sources. Receiving foreign assistance is also increasingly problematic, as governments worldwide are cracking down on international aid to local NGOs. Power relations between developed and developing countries further affect the construction of what is and is not an environmental problem, and determine what is funded or addressed.

Furthermore, environmental NGOs are often marginalised and work in remote areas with poor communications infrastructure and without access to legal protections, which make physical and digital safety challenging.

Among funding bodies who do fund grantees working in high-risk areas (e.g. the environment), priority is usually placed on supporting an organisation’s physical security. In addition, funders may be aware of the specific physical threats to grantees, but they may be ill-equipped to evaluate digital threats facing the NGOs they support. Physical and digital security, however, are increasingly interconnected. Paying insufficient attention to digital security could end up eroding the gains from investing in physical security. More research and funding to better understand and mitigate both digital and physical risks faced by environmental defenders are therefore necessary.

On/offline threats in Cambodia, Indonesia and the Philippines

This section discusses findings from the literature research and semi-structured interviews we conducted with 15 environmental activists, lawyers and journalists in the three countries. It begins by providing a brief survey of internet connectivity and environmental issues in Cambodia, Indonesia and the Philippines. Subsequently, we outline the digital and physical risks described by interview participants. Our research uncovered persisting security challenges faced by environmental civil society.

98.5% of Cambodia’s 16 million people use the internet either through mobile or broadband connection, and many of them are Facebook users. Since the 2018 national election and with increased use of technology, Cambodia has shifted from an electoral or competitive authoritarianism to digital authoritarianism under Prime Minister Hun Sen. The election was declared a “sham” by rights groups and political observers as the government cracked down on the opposition. Over the past five years, the government has passed a series of repressive new laws and amendments that further infringe on human rights, including telecommunications-related restrictions. There is also a growing use of the criminal process to stifle dissent, opposition and political debate through prosecutions for online speech. State agencies are

12 Ibid.
15 Ibid.
18 Ibid.
known to frequently target journalists, NGOs, and land and environmental defenders. This increasing authoritarianism is coupled with the exploitation of natural resources, which are disappearing at an “alarming rate.” Major infrastructure projects such as large-scale dams – many of which are funded by China – threaten fish supplies and cause mass displacement and high rates of deforestation. Cambodia’s widespread decline in natural resources is closely linked to land grabbing, the Economic Land Concession system, and forcible displacement.

In Indonesia, approximately 150 million of its more than 260 million people are online. Indonesia’s relatively low internet penetration rate indicates a massive possibility for growth. Acknowledging this potential, President Joko “Jokowi” Widodo aimed to increase Indonesia’s infrastructure development, including internet infrastructure, during his tenure. In 2019, Indonesia completed the building of an undersea fibre-optic cable network, the Palapa Ring, that provides broadband internet across the country. Jokowi’s objectives are to improve the population’s tech skills and achieve an Indonesian “Golden Age.” Jokowi’s development drive, however, has been criticised for neglecting environmental and rights protection. Activists argue that this omission is why Indonesia is becoming an increasingly dangerous place for people defending the environment. The rights group Protection International found that 80% of cases of rights violations in Indonesia from 2014 to 2018 involved environmentalists, while ELSAM, an advocacy group, documented 27 cases in 2019 involving violence or threats of violence against environmentalists. Of particular concern are Jokowi’s decisions to move the country’s capital to Borneo, which would encroach on protected forests and critically endangered orangutans, and to propose the deregulation bill (Omnibus Bill), which would allow for the extraction of natural resources with very minimal safeguards.

Those with internet access in the Philippines spend the greatest number of hours online in the world, and 94% of adults with internet access are on social media, mostly Facebook. Despite

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28 https://www.frontlinedefenders.org/en/location/cambodia
43 Ibid.
the proliferation of new media, the country was known as the fifth deadliest for journalists. The Philippines is resource-rich and its 7,107 islands are home to unique and endangered species. The drive to exploit natural resources has resulted in an increase of extractive projects being imposed upon communities and created a rising tide of violence against those who dare to speak out and defend their rights. In 2018, President Rodrigo Duterte declared that he would personally choose palm oil or mining investors to develop Indigenous ancestral lands, and in this same year, the Philippines had the highest number of murdered land and environmental defenders in the world. A 2019 report by environmental NGO Global Witness found that firms involved in “mining, agribusiness, logging, and coal plants are driving attacks against environmental activists.” Global brands such as Del Monte and Dole, and Filipino firms like San Miguel Corporation have been linked to local partners accused of attacks and murders of protestors.

As internet penetration rates continue to climb in Cambodia, Indonesia and the Philippines, the “digital divide” has remained problematic. Environmental defenders who live or work (or both) in isolated rural areas and in conditions of extreme poverty still lack access to the internet or mobile networks. Those living in remote villages also may not (individually) own smartphones (i.e. the smartphone is a shared resource in the family or village, making basic digital security like protecting passwords challenging).

The majority of our interviewees reported low awareness of digital security practices and risks in their communities. Among those who are connected to the internet and own smartphones, attacks have been in the form of threatening text, WhatsApp and Facebook messages. A webinar about rights issues in Indonesia’s restive Papua region was also disturbed by intrusions, such as spam calls to the speakers’ mobile phones and unknown users posting various messages in the chat function to disturb the meeting. An organisation in the Philippines that works with Indigenous women activists had its website and email accounts hacked, resulting in the loss of two years’ worth of emails, among other data, while an activist in an environmental NGO in Cambodia that we interviewed had experienced Facebook and email account login attempts, and received a Gmail notification for “government-backed attacks”. Unlike other individuals and organisations we spoke to, which were lacking in terms of digital security practices, the Cambodian NGO possesses heightened digital security awareness, including using encrypted emails and chat applications.

Threats to physical security still loom large over environmental defenders, including illegal arrests and imprisonment, assassinations, violence (e.g. beatings) and sexual assault. Physical threats have been received online through email, WhatsApp, Twitter or Facebook Messenger messages, and to devices or accounts belonging to their friends, family members and colleagues. In response, activists frequently replace their phone numbers and devices, which drains their time, energy and resources.

Local and Indigenous peoples continue to struggle against national and global corporations in the natural resource sector (and sometimes also against their government's forestry department) to protect their land. Activists regularly confront the

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55 Ibid.


59 Poetranto, I., personal communication, 21 July 2020.

60 Ibid.


62 Poetranto, I., personal communication, 21 July 2020.

63 Anstis, S., personal communication, 19 October 2019.

64 Poetranto, I., personal communication, 21 July 2020.

65 Ibid.

military and police, who perpetrate rights violations (e.g. performing illegal arrests) alongside hired thugs, private security companies, and the security personnel of the extractive companies themselves. Rampant corruption, weak rule of law and state institutions, and a climate of impunity in these countries mean that rights defenders face a network of repressive actors. Meanwhile, efforts to crack down on environmental NGOs and their supporters (e.g. local churches) have included barring foreign funding, accusing them of corruption, or labelling them as criminal organisations.

Smear tactics to discredit activists have been applied online and offline. Indigenous women activists, for instance, often have their reputation attacked in person and on Facebook posts. Activists have also been labelled online as leftist or communists, a phenomenon known as “red tagging”. The communist stigma is especially dangerous in Indonesia due to past anti-communist pogroms (e.g. the case of environmental activist Budi Pego), and in the Philippines where the communist insurgency is ongoing. Portraying environmentalists as communist sympathisers eases their treatment as “enemies of the state” and justifies their killings.

In the midst of the COVID-19 pandemic, the Philippines passed the Anti-Terrorism Act (ATA), which gives the government broad powers to classify someone as a terrorist based on a number of factors, including what they post online. Some worry that the terrorist label could be applied against environmental defenders in the Philippines, just as the separatist label has been applied to Indigenous peoples in Indonesia's Papua. Several Filipinx activists we spoke to were among those who had fake Facebook accounts of them created in June 2020, and many wondered if this would lead to a crackdown once the ATA is enacted into law. It is clear that complex and multidimensional security threats complicate the work of environmental rights defenders.

Conclusion

Cambodia, Indonesia and the Philippines are still plagued with corruption, weak government and high poverty rates. These conditions, combined with the profit-driven exploitation of natural resources and a culture of impunity, have made the protection of land, environmental and Indigenous peoples’ rights a dangerous sector of human rights defence. A 2019 report by the rights group FORUM-ASIA found that land and environmental defenders were “a key target for both state and non-state actors competing to access natural resources and implement mega development projects.” As a result, they were the number one most affected group of defenders in terms of violence.

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69 Poetranto, I., personal communication, 20 July 2020.


71 Anstis, S., personal communication, 19 October 2019.

72 Ibid.


74 Anstis, S., personal communication, 19 October 2019.

75 Poetranto, I., personal communication, 21 July 2020.


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82 Poetranto, I., personal communication, 21 July 2020.


85 Poetranto, I., personal communication, 21 July 2020.


Findings from our study suggest that offline and online threats cannot be separated; they are interconnected – i.e. physical threats can be conveyed in person and online, and online threats are perpetrated offline – and constitute the multitude of threats that environmental defenders must overcome. Offline attacks may result in death or dismemberment, but the damage that is inflicted by online attacks can also be severe: causing significant stress and draining an organisation’s resources (e.g. frequent changes of devices) or emboldening all those who see it (e.g. publicly visible threats via Facebook). As Judy Pasimio, LILAK’s coordinator, said: “When [threats are delivered via] text messages, it is between you and the attacker. When [threats are posted] online, the influence [of the attacker] is magnified and the threats are amplified.”

Among the 14 environmental activists, lawyers and journalists we spoke to, digital attacks were launched not just against them as individuals, but also their friends, families and colleagues. These attacks strained their professional and personal lives, and created a chilling effect in their communities. Women activists in particular face threats assailing their honour, reputation and supposed gender role (e.g. “women belong in the home and not in activism”). In the Philippines, gender-based attacks have been trivialised (if not also normalised) by Duterte.

Environmental defenders are also routinely discredited online, as communists, separatists, or having “loose morals” (e.g. accused of being drug addicts).

Online and offline attacks are carried out to stop protests, activism and social movements – in which demands for accountability, the protection of human rights and the environment, and fair and transparent governance are made. Because of this, online threats against civil society must not be ignored or minimised, just as we must seriously address offline threats.

**Action steps**

Our research suggests that the following must be done to support environmental defenders in the region:

- Publish more evidence-based research on digital attacks targeting civil society working on the environment, as our study indicates high vulnerability and uneven digital security practices.
- Actively engage with private sector actors (e.g. threat intelligence firms) to encourage them to track and mitigate specific threats to civil society, regardless of ability to pay for services.
- Appeal to funding bodies for sustainable funding towards fulfilling increasingly complex digital and physical security needs, and ensuring that support provided is contextualised to local conditions.
- Strengthen multistakeholder advocacy efforts to raise the profile of digital and physical threats against civil society, domestically and internationally.

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91 LILAK (Purple Action for Indigenous Women's Rights) is “an organisation of indigenous women leaders, feminists, anthropologists, human rights advocates, environmentalists and lawyers who support the struggle for indigenous women's human rights.” https://www.facebook.com/pg/katutubonglilak/about/?ref=page_internal
92 Poetranto, I., personal communication, 21 July 2020.
95 Poetranto, I., personal communication, 20 July 2020.
Technology, the environment and a sustainable world: Responses from the global South

The world is facing an unprecedented climate and environmental emergency. Scientists have identified human activity as primarily responsible for the climate crisis, which together with rampant environmental pollution, and the unbridled activities of the extractive and agricultural industries, pose a direct threat to the sustainability of life on this planet.

This edition of Global Information Society Watch (GISWatch) seeks to understand the constructive role that technology can play in confronting the crises. It disrupts the normative understanding of technology being an easy panacea to the planet’s environmental challenges and suggests that a nuanced and contextual use of technology is necessary for real sustainability to be achieved. A series of thematic reports frame different aspects of the relationship between digital technology and environmental sustainability from a human rights and social justice perspective, while 46 country and regional reports explore the diverse frontiers where technology meets the needs of both the environment and communities, and where technology itself becomes a challenge to a sustainable future.