

# GLOBAL INFORMATION SOCIETY WATCH 2020

*Technology, the environment and  
a sustainable world: Responses from  
the global South*



ASSOCIATION FOR PROGRESSIVE COMMUNICATIONS (APC)  
AND SWEDISH INTERNATIONAL DEVELOPMENT COOPERATION AGENCY (SIDA)

## Global Information Society Watch 2020

Technology, the environment and a sustainable world: Responses from the global South

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# BRAZIL

## NEW TECHNOLOGIES ALONG THE TAPAJÓS AND SÃO FRANCISCO RIVERS IN BRAZIL: A LOOK AT SOCIAL AND ENVIRONMENTAL JUSTICE NARRATIVES IN DIFFERENT TERRITORIES



**Intervozes - Coletivo Brasil de Comunicação Social**  
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### Introduction

In some regions in Latin America, it is a huge challenge to be a journalist or popular communicator in the midst of socio-environmental conflicts. It is also risky to be a defender of your own territory. In response to these difficulties, many have been turning to new technologies: from community geo-maps of traditional territories that still struggle for recognition of collective entitlement to the land; to internet and social networks to connect popular communicators in urban and rural areas to build new collective forms of journalism and communication in defence of territories; and even to drones to identify land invaders. However, at what cost? There is no easy solution to socio-environmental conflicts, nor the possibility of a universal or one-size-fits-all response.

Drawing on experiences along two rivers in Brazil – the Tapajós River in the state of Pará in the Amazon, and the São Francisco River in the semi-arid Northeast region – this report considers the deployment of information and communications technologies (ICTs) for socio-environmental justice and the right to territories.

Top-down techno-solutionism brings challenges and high risks. On the one hand, the internet and other technologies are used by traditional communities as part of their communication strategies in the struggle for land and territory. On the other, this process is marked by many hierarchies of power.<sup>3</sup> For that reason, we pose two questions: What asymmetries does

the idea of a global environmental crisis hide?<sup>4</sup> And how can we build and recognise the already existing and less centralised networks in communities used for the circulation of narratives, and especially the cultural backgrounds of Black, Indigenous and traditional communities?

### Context

Since the beginning of 2019, Brazilian President Jair Bolsonaro has attempted to deregulate environmental protection laws. During the COVID-19 pandemic, this process was accelerated.<sup>5</sup> Increasingly, the country lives at a time in which communities using non-hegemonic ways of social organisation need to develop ways to protect themselves and the territories they historically occupy. The coronavirus has placed a spotlight on inequalities and has resulted in the emergence of new ones, as the government responds to the pandemic in a way that has been investigated as genocidal. Among other problems with the government's response, there is no public policy for prevention and care adapted to local needs, nor proper access to information.<sup>6</sup>

In this context, economic recovery decisions are made to the detriment of the lives of people, especially those considered an obstacle to a development package that is based on the expansion of megaprojects related to activities such as agribusiness, mining and the use of other so-called “environmental resources”. As a result, marginalised communities in

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3 To read more about power relations around implementation of the internet, see: Borari, V., & Nobrega, C. (2020). One Vision, One World. Whose World Then? *Branch*, 1. <https://branch-staging.climateaction.tech/2020/10/15/one-vision-one-world-whose-world-then>

4 Drawing from the idea of environmental inequalities as put forward by the Brazilian anthropologist Andrea Zhouri. See: Zhouri, A. (2014). *Mapping Environmental Inequalities in Brazil: Mining, Environmental Conflicts and Impasses of Mediation*. [desigualdades.net](http://desigualdades.net) International Research Network on Interdependent Inequalities in Latin America. [https://www.desigualdades.net/Working\\_Papers/Search-Working-Papers/working-paper-75\\_-mapping-environmental-inequalities-in-brazil\\_/index.html](https://www.desigualdades.net/Working_Papers/Search-Working-Papers/working-paper-75_-mapping-environmental-inequalities-in-brazil_/index.html)

5 Research done by Folha de S. Paulo and Instituto Talanoa shows that the federal executive branch published 195 acts related to environmental issues during the first months of the pandemic in Brazil. In the same months of 2019, only 16 acts were published on the same subjects. Amaral, A. C., Watanabe, P., Yukari, D., & Meneghini, M. (2020, 28 July). Governo acelerou canetadas sobre meio ambiente durante a pandemia. *Folha de S. Paulo*. <https://www1.folha.uol.com.br/ambiente/2020/07/governo-acelerou-canetadas-sobre-meio-ambiente-durante-a-pandemia.shtml>

6 Saxena, S., & Costa, F. (2020, 20 July). Bolsonaro's Colossal Negligence Sparks 'Genocide' Debate in Brazil. *The Wire*. <https://thewire.in/world/brazil-covid-19-jair-bolsonaro-genocide-negligence>

urban areas, as well as traditional populations such as *Quilombolas* (descendants of enslaved African people who managed to escape and build communities), small farmers and riverside and fishing communities have been disproportionately affected by the pandemic. Brazil has one of the highest mortality rates for the pandemic in the world, and there is a need for an extended quarantine of communities. This has intensified the need to use technologies for communication within communities and with the outside world. At the same time, land conflicts have not stopped. On the contrary, environmental invasions and devastation have increased. State discourses that are based on the need to promote economic development in these areas have become stronger, leading, among other things, to the massive deployment of technologies. In September 2020, the current federal government even announced an Amazon Rainforest internet programme, describing its aim as “to integrate the largest green lung of the planet” and allowing the installation of underwater fibre-optic networks that will run along the Amazon rivers for 10,000 kilometres.<sup>7</sup> But for what and for whose needs?

The programme falls under the development proposal for the Amazon, which is based on massive extraction of natural resources and the expulsion of traditional peoples from their territories.

Building on the role that rivers and the communities living along them play in the country, below we discuss some of the results of our academic research and practices in specific places along the Tapajós and São Francisco Rivers. Both are born from the waters of the Cerrado biome<sup>8</sup> in the centre of the country, but run in different directions: to the North and the semi-arid Northeast. We point to some technological challenges, such as access to and quality of the internet, and highlight local strategies that are being developed to face risks. Our proposal of contrasting these two cases is to find challenges and similarities, and to build a critical vision. Our research goes far beyond the walls of universities and is located in the practices we collectively develop at Intervozes. We also discuss the necessity of improving communications in order to struggle against extractive and invasive megaprojects and the conflicts they bring and, at the same time, for disputing imaginaries of memory, the present and the future.

## Rivers, radio transmitters and the internet: Communication flows

(By Camila Nobrega)

The day I visited the community of Sawre Muybu in Médio Tapajós, in 2019, they were bringing back a drone which had fallen. The women from the Munduruku Audiovisual Collective – a collective founded by women – were worried, but laughing, telling me about this new technological tool in the struggle for the right to the Munduruku Indigenous people’s territory. The drone helps them map the activities of invaders of their territory, such as deforesters, gold diggers and so on. The collective also uses the internet to build their narratives on social networks, and through other online documentation processes.

By travelling the Tapajós River and interviewing women from different communities, it is possible to see the role that access to technologies and the internet have played in different initiatives. Another one is the Articulation of Communicators in Defence of Territories, which connects people from different communities through multiple new and traditional forms of communication. This includes radio, meetings and assemblies where traditional knowledge is exchanged, and even dating strategies through radio transmitters, added by internet connections. These are multiple layers of communication that complement each other. And what became evident is that the river is a means of communication in itself.

Simultaneously, the pressures on traditional communities are growing with the encroachment of agribusiness, deforestation, mining – economic sectors that are large-scale. More 43 hydroelectric plants could be built along the Tapajós River and its tributary or formative rivers, according to hydrographic basin inventory studies by the Brazilian electricity regulatory agency. The plan was denounced at the United Nations by traditional communities and the Federal Prosecutor’s Office.<sup>9</sup> In general, the metrics used to account for the success of these business activities and projects or their negative impacts are guided by a logic decided far from the territories where they are implemented. It is a logic of the scalability of non-scalable things, or an alienation based on complex layers of distances, as the US anthropologist Anna Tsing said.<sup>10</sup>

7 La Prensa Latina. (2020, 2 September). Brazil’s Bolsonaro announces Amazon rainforest internet program. *La Prensa Latina*. <https://www.laprensa-latina.com/brazils-bolsonaro-announces-amazon-rainforest-internet-program>

8 The tropical savanna of Brazil, a region widely exploited by agribusiness.

9 Report by the Federal Prosecutor’s Office to the UN Special Rapporteur on the rights of Indigenous peoples (in Portuguese): <http://www.mpf.mp.br/pa/sala-de-imprensa/documentos/2016/violacoes-direitos-povo-indigena-munduruku>

10 Tsing, A. L. (2015). *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton University Press. <https://doi.org/10.2307/j.ctv77bcc>

Traditional knowledge holders living in the Tapajós region bring a shift to the narratives. During a talk we did together at the Discotech event organised by APC at the 2019 Internet Governance Forum,<sup>11</sup> the Indigenous leader and lawyer Vândria Borari said in reference to the International Labour Organization convention on Indigenous and tribal peoples (No. 169): “Our right to prior, free and informed consultation has to be respected in any process. We know what we need in our territories and what technology means to us.”

Another Indigenous leader, Alessandra Munduruku, pointed out in an interview in 2019: “Infrastructure projects are installed inside our house [the Amazon forest] and we are the last to know.” She added: “And we don’t want internet or anything, if it means destroying our territory. We have to be heard when we say how we want things to be done.”<sup>12</sup>

They do not mean that they do not see the benefit of technology. On the contrary, both of them have pushed for access to the internet, in their communities. Munduruku is part of a project that also uses drones to protect their territory and simultaneously an enthusiast of alternative forms of communication. Borari also calls herself a communicator, using social networks and other means to communicate.

They do, however, suggest the need to think beyond access as a framework, as academics like to say. Instead it is important to include the perspectives of communities in the idea of “access”, such as the recognition of traditional epistemologies, and ways of knowledge production and sharing. And, before all of that, the question needs to be posed: How will access help to guarantee land rights, which is the basis of the autonomy of the communities? The proposal is to reverse the logic of problem solving that usually guides public policy. The focus is instead on understanding “where the problem is located” and “how to identify its roots.” So, if it is about access to the internet, it is important to ask how this access is designed, and for whom it is designed.

Instead of thinking about the end of the technological production chain – e-waste, for example – it means reversing the angle to a bottom-up way of thinking. For instance, this would involve thinking of the technology sector’s dependence on megaprojects involving energy or mining, among other power relations that support the displacement of peoples and territories. How are the notions of technology

rooted in the logic of development – and therefore in the idea of keeping going with “business as usual”?

At the same time, rethinking frameworks opens the possibility of imagining ICTs as connected directly to land and territorial struggles. From this perspective, it is not just about land, it is about imaginaries and the recognition of traditional knowledge, science and the multiplicity of forms of communication. In contrast to attitudes and actions of the monopolies of big business, diversity in the territories is directly connected to land and to our bodies.

## Networks to disseminate

(By Eduardo Amorim)

Travelling in a car with Fundação Oswaldo Cruz (Fiocruz) signs in 2018, to try to understand the disruptions and changes happening due to a megaproject in the Northeast, I was able to reach Quilombo Santana, in Salgueiro. The community was inaccessible, closed off by police officers; journalists had no access to the people, because a few days after a presidential visit and the opening of the São Francisco Transposition project, some farmers lost their crops due to leaked water from the channel. The engineering problems also threatened one of the villages built to serve families removed from areas where the water channel passed. We could only access the area because we were driving a car belonging to a federal research organisation: police officers had closed roads and journalists could not access the region, where days earlier, former president Michel Temer had been to open one of the phases of the project.

Public misinformation was also used as a way to silence the problems of the project.<sup>13</sup> The silencing of how the people have suffered with this project is frightening – a project that the media and many governments in Brazil long before Bolsonaro, including on the left, only spoke about in a positive way. These public political positions have been supported financially through agribusiness. Violence has been a reality to whoever decides to talk about the corruption and the problems of this mega-venture, no different from what has happened to the traditional communities since the beginning of Portuguese occupation.

The biggest public organisation for health research in Brazil, Fiocruz has over the past years been maintaining a portal called Beiras D’Água (“Water Borders”). Researcher André Monteiro and his team have aimed to develop a space on the internet to spread the culture and ways of resisting

<sup>11</sup> <https://videos.apc.org/u/adolfo/m/discotech-environment-icts>

<sup>12</sup> Nobrega, C. (2019, 27 November). ‘Everything is dying’: Q&A with Brazilian indigenous leader Alessandra Munduruku. *Mongabay*. <https://news.mongabay.com/2019/11/everything-is-dying-qa-with-brazilian-indigenous-leader-alessandra-munduruku>

<sup>13</sup> Amorim, E. (2018, 30 November). Governo Federal distribuiu informações falsas para esconder as falhas técnicas da transposição. *Marco Zero Conteúdo*. <https://marcozero.org/governo-federal-distribuiu-informacoes-falsas-para-esconder-as-falhas-tecnicas-da-transposicao>

of the communities that live in the regions that are served by the São Francisco River. For example, they use the portal to spread videos about and made by Indigenous and Quilombola communities and the struggle against the many hydroelectric plants that have killed most of the fish in the region.

The portal includes video productions by artists and groups in the Indigenous and Quilombola communities and Fiocruz videos. The main idea is to take productions that were known only within a small group and spread the narrative. The aim is always to help the project to create awareness among Brazilians about the community narratives that are silenced, but some issues, such as the evictions of families that lived close to the transposition channels recently opened by Bolsonaro and the loss of access to water due to this mega-venture, are censored in a way that made the team from the research organisation start to produce some videos, starting with *Invisíveis* (Invisible).<sup>14</sup> Although the idea behind the portal is to disseminate content that is produced by the communities, how to deal when mega-ventures censor the issues in so many different ways?

The Beiras D'Água initiative is not only a portal. It is starting to become a group of people concerned about the environment and the river, that has done research, filmed videos, planned film festivals and also mobilised communities. The idea is similar to initiatives such as the Mississippi River Anthropocene Curriculum,<sup>15</sup> but has to deal with the gap of technology literacy and especially the culture of violence and the unfair reality of mass communication platforms such as TV channels controlled by a few families in Northeast Brazil. As shown in the fiction film *Bacurau*,<sup>16</sup> communities are still fighting to have access to water in the Northeast, but by developing networks to disseminate those narratives, we need to think about the safety of the leaders of those communities that have been violently silenced historically in the region.

## Conclusion

The escalation of socio-environmental conflicts in Brazil has led to the rise of different communication networks connecting territories in which ICTs play an important role. At the same time, however, the arrival of these technologies often occurs in a top-down way, as part of a development and ecological modernisation logic also responsible for devastation, including the displacement of populations from their territories.

From the two cases presented above, brought up from a perspective based on socio-environmental

justice and women's and feminist struggles in the territories, we argue that it is necessary to shift perspectives, both to evaluate the implementation of ICT projects and the impacts involved and to seek new logics of collaboration and network building, as well as recognition of territorial narratives and traditional, ancestral technology.

Finally, the cases presented point to the fact that there is no single global crisis: there are different perspectives of the systemic crises, which need to be understood in the territorial dynamics. In this sense, these observations are relevant to all of us who work in networks, as an invitation to – starting with the communities in the riversides<sup>17</sup> – deconstruct hegemonic, racist and heteronormative perspectives that contribute to current intertwined socio-environmental devastations.

## Action steps

The following action steps are necessary:

- Connect the struggle for access to technologies with the right to territories.
- Support the creation and growth of networks that strengthen groups on the edge of Brazilian rivers while preserving the role of riverside communities.
- Insist on the right to consultation for communities as part of megaprojects or when technologies are implemented in those communities.
- Shift narratives from sustainable development to socio-environmental justice and other views based on territorial diversities and that make power relations visible.
- Map power asymmetries that develop when technologies are implemented in territories without the consent of communities.
- Support local initiatives that promote the inclusion of communities.
- Recognise different means of communication as technologies, not just new technologies. Recognise ancestral and traditional technologies as part of the present and the future, and not just the past.
- Develop collective means of consultation on the implementation of communication and information technologies, building on existing documents developed by traditional communities.
- Support women and LGBTIQ initiatives in urban and non-urban contexts and especially in traditional communities during mega-ventures which increase the male population in small cities and towns.

<sup>14</sup> <https://beirasdagua.org.br/item/invisiveis>

<sup>15</sup> <https://www.anthropocene-curriculum.org>

<sup>16</sup> <https://www.youtube.com/watch?v=iDPdE1MBCQC>

<sup>17</sup> Kelly, J., et al. (Eds.). (2017). *Rivers of the Anthropocene*. University of California Press. <https://doi.org/10.1525/luminos.43>

# *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.

GLOBAL INFORMATION SOCIETY WATCH

2020 Report

[www.GISWatch.org](http://www.GISWatch.org)

