

Thematic Briefing



TECHNOLOGY

Why this Briefing and What is it About?

This is the time for civil society organizations (CSOs) and social movements from all over the world to unite under a strong call for a systemic transformation of the global trade and financial architecture and global division of labor, towards a just, green, and feminist recovery post-COVID-19. And the UN, as the only global institution mandated to address economic and social challenges where developing countries have an equal say, is the space to do so. This is where the UN Financing for Development (FfD) process comes in - as a space to advance on the systemic changes we urgently need to see.

This briefing on Technology is part of a broader toolkit introducing the FfD process and the Civil Society FfD Mechanism's role in it, being built as an attempt to make navigating the FfD process and its interrelated domains more accessible for a non-technical audience.

In this briefing we explore the contradictions between the expansion of the digital economy on the one hand and the persistent digital divide on the other. We also highlight how shaping decision-making on global economic governance at the UN has the potential to bridge the digital and development gap and transform our global economic systems to reduce inequalities within and between countries and make them work for people and the planet.

Box 1. The Civil Society Financing for Development Mechanism

The CS FfD Mechanism is civil society's coordination body for collective engagement in the FfD process. The Mechanism has been active in its present format (Global Social Economy Group - GSEG listserv) since the Doha FfD Review Conference in 2008, though many of its members are engaged since the Monterrey FfD Conference in 2002. It is an open virtual list containing several hundreds of organizations and networks from diverse regions and constituencies around the world. CS FfD Mechanism's core principle is ensuring that civil society can speak with one collective voice.

To join the CS FfD Mechanism, please fill the google form at this link.

The Challenge: The Digital Divide

The digital divide cannot be fixed without addressing the underlying development divide

The use of digital technologies that allow communications and remote access through the internet and processing large amounts of data are rapidly spreading. Globally, internet traffic has seen a thousand-fold increase within the last three decades. It is estimated to be at 4.38 zettabytes¹ in 2022², compared to 3 zettabytes in 2020 and 100 gigabytes per day in 1992.³ In 2023, 78 per cent of the world population aged 10 and over own a mobile phone.⁴ This rapid spread of digital technologies is transforming many aspects of social life, including how we communicate, access services, work, and buy things we need. Along with trade and investment liberalization and deregulation, digital platforms and artificial intelligence have entered the business of connecting different economic actors within and across borders in fields such as transportation, tourism, media, labor, e-commerce, etc. As a result, the size of the digital economy in 2019 was estimated to be between 4.5% to 15.5% of the global GDP.⁵

Lockdowns and other physical distancing measures during the COVID19 pandemic spurred an even more rapid adoption of digital technologies as more activities took place online. Internet users increased from 4.1 billion in 2019 to 5.4 billion in 2022.⁶ In Southeast Asia alone, the digital economy surpassed USD 100 billion in 2020 and is set to triple by year 2025, with optimistic estimates of increasing up to USD 1 trillion by year 2030.⁷

Digital technologies and connectivity are also powering the emerging Industry 4.0, also known as the Fourth Industrial Revolution. Industry 4.0 combines hardware, software, and connectivity which not only enable remote access, but also harness and analyze large amounts of data, which then allow automation of production and business processes through artificial intelligence. This technological leap has broad implications not only on business efficiency, but also on the way production is organized between countries, as more and more processes that previously required human labor can now be replaced with robots and AI-powered services.

However, not all are able to enjoy the benefits of the expansion of the digital economy and the emerging Industrial 4.0, because of the underlying development divides between the Global North and Global South countries, between rural and urban populations, as well as between women and men. While 5.4 billion were able to access the internet in 2023, this is only equivalent to 67% of the world's population.⁸ The remaining 33% or 2.6 billion that are still offline are predominantly in less developed regions and countries. Internet access is lowest in Africa at 37% and Asia at 66%. In least developed countries and low-income countries, 65% and 75% of the population respectively are offline. In comparison, internet access in Europe is at 91% and in the Americas at 87%. Internet access is also higher among urban populations which is at 81% compared to the 50% in rural areas. Gender disparities in digital

access also persists. Women are about 8% less likely to own a mobile phone than men, and among those not owning a mobile phone, women outnumber men by 35%.⁹ Only 65% of women globally use the internet, compared with 70% of men. Among those who are offline, women outnumber men by 17%.¹⁰ It is safe to assume that most of these women are in Asia and Africa, where 37% and 68% of women, respectively, do not have access to the internet. In low-income countries, 80% of the women do not use the internet.

Coverage and affordability remain barriers to internet access. Worldwide, 100% of urban populations is covered by 3G and 4G networks while 95% of the rural populations is covered by 2G, 3G and 4G networks.¹¹ Only 38% of the global population is covered by the newer 5G technology. While 4G remains a good alternative, low-income countries still have lower coverage wherein 55% do not have access to 4G networks. While populations in low-income countries have lower access to better internet networks, they also must pay more. Data-only mobile broadband (2GB) subscription amounts to 9.3% of the average annual income in low-income countries which is 22 times higher compared to high-income countries.¹² The disparity is even wider in prices of fixed broadband subscriptions (5GB) where prices amount to 33.7% of the average annual income in low-income countries, making it 33 less affordable compared to high-income countries where the same service costs only 1% of the average annual income.

The digital divide between developed and developing countries creates an unequal playing field in international trade that is tilted in favor of developed countries. The lack of or subpar connectivity and digital public infrastructures as wells as problems with access to stable sources of electricity in developing countries affect their prospects for benefiting from international trade as the digitalization of manufacturing processes as well as business processes related to exports and imports further increases.¹³ On the other hand, the lack of policy space and capacity of governments to regulate the activities of Big Tech especially in developing countries allows them to extract massive profits from different services, agriculture, as well as people's data, which have significant consequences on consumer, data and privacy protection, taxation, employment, decent working conditions, access to land and other resources, and human rights.

The development divide that underpins the digital divide is also very apparent in the differing levels of governments' readiness to use AI to deliver public services. According to the 2023 AI Readiness Index by Oxford Insights,¹⁴ low-income countries have just started to publish their AI development and governance strategies in 2023 compared to high income and upper middle-income countries who have published such strategies starting 2017. Low-income countries also typically lack a mature technology sector that is supported by adequately funded research and development, and human capital or the people that have the skills and education to work in the sector. Aside from scoring low in the infrastructure needed to

support AI development and utilization, low-income countries also do not have the extensive volumes of data that AI typically needs to function.

Thus, it is not surprising that the economic benefits of digital technologies, including AI, are heavily tilted in favor of developed economies, particularly United States and China, because of their massive investments in research and development. China and United States are leading in terms of numbers of researchers, publications, and patents in digital technology. They also have "almost 90 per cent of the market capitalization of the world's largest digital platforms. The largest such platforms – Apple, Microsoft, Amazon, Alphabet (Google), Facebook, Tencent and Alibaba – are increasingly investing in all parts of the global data value chain: data collection through the user-facing platform services; data transmissions through submarine cables and satellites; data storage (data centers); and data analysis, processing and use, for instance through AI. They have become global digital corporations with planetary reach; huge financial, market and technology power; and control over large swathes of data about their users."15 COVID19 boosted the earnings of these Big Tech companies, with Microsoft and Google seeing their revenues rise to 21% and 70%, respectively, during the second quarter of 2021.¹⁶ This is likely to continue as the platforms created by these companies tend to concentrate large numbers of users, whose steady increase in turn creates network effects that makes it difficult for users to switch to alternatives even when they do exist.

The development and digital divide are a consequence as well as a source of inequalities in the global economic governance. Colonial exploitation and subsequent neoliberal policies continuously rob developing countries of natural, human, and financial resources for the benefit of developed countries and the super-rich, which consequently denies developing countries access to resources to further their own technological progress. Structural adjustment programs and austerity measures reduced public expenditures including on research and development. Corporate tax dodging drains at least USD 100 billion/ year from low-income countries.¹⁷ Soaring debt levels and the resulting pressure to increase debt servicing payments further siphoned USD 10 billion to USD 33 billion from Least Developed Countries (LDCs) between 2011 to 2019, and this is projected to increase to USD 43 billion in 2022 because of pandemic borrowing.¹⁸ These resources could have been used by developing countries to invest in social services, scientific research and technological development. Meanwhile, restrictive intellectual property regimes have prevented real technological transfer from developed countries to developing countries, which further contributes to the existing digital divide.

Access to digital technologies alone unfortunately does not guarantee that developing countries and their citizens will benefit from their use. Policy space is also needed by developing countries to ensure that they can implement laws and measures that will provide an enabling environment for digital technology to promote people and planet-centered sustainable development. These include the ability to tax the digital economy; guaranteeing the protection of human rights, including labor rights as well as access to land and resources by farmers and indigenous peoples; and ensuring that digital technologies and the data produced from using them are controlled by the public to pursue public interest instead of being privatized and used for profit-seeking by corporations.

Links with Taxation and Domestic Resource Mobilization

Aside from enjoying the benefits of low corporate tax rates, multinational companies have been employing means to lessen their tax burden through tax dodging. These measures include locating subsidiaries in jurisdictions that have low taxes or protect from taxation some types of incomes such as royalties paid on use of software. The digital economy enables these old-school tax dodging strategies to be employed more aggressively by multinational corporations, specially by digital technology companies, as they may not need local presence in a country to operate their businesses. As the share of digital services in economies grow, national tax bodies face the difficult challenge of taxing cross-border digital trade to contribute to domestic resource mobilization to meet development needs.

Member-countries of the Organization for Economic Cooperation and Development (OECD) attempted to address tax challenges associated with globalization and the digital economy by coming up with a Two-Pillar solution in October 2021. Pillar One "applies to about 100 of the biggest and most profitable MNEs [Multinational Enterprises] and re-allocates part of their profit to the countries where they sell their products and provide their services, where their consumers are."¹⁹ Meanwhile, Pillar Two subjects multinational corporations (MNCs) to a global minimum tax rate of 15%. However, tax justice advocates decry that the proposed solutions not only fall short of addressing the root causes of tax dodging corporations, these will also "limit the right to tax of source countries to a small proportion of MNCs'profits and entrench taxing rights to headquarter countries over global profits."²⁰ Indeed, the scope of Pillar One to a hundred or so MNCs is not enough for developing countries to raise taxes from a significant number of MNCs while the minimum tax rate of 15% in Pillar Two is too low to disincentivize profit shifting and can result in a "race to the minimum" levels of taxes among countries with higher corporate taxes.

Digital trade rules present in some regional trade agreements such as the Comprehensive and Progressive Agreement for Transpacific Partnership (CPTPP) and those being proposed in the World Trade Organization (WTO) can restrict the fiscal and regulatory space of governments, especially of developing countries, in relation to the digital economy. The liberalization of data flows, the removal of restrictions on data localization and disclosure of source codes and algorithms, the removal of customs duties on electronic transmissions, as well as wider market access for corporations under the General Agreement on Trade in Services (GATS) can prevent governments from taxing digitalized corporations.²¹ These rules are also expensive for developing countries to comply with, which can negatively affect their trade competitiveness against developed countries.²²

Linking local businesses to the global market is one of the touted benefits of e-commerce powered by platforms. However, the increased market access of Big Tech companies like Amazon and Alibaba through e-commerce platforms endangers the market shares of local medium, small, and micro enterprises which have less capitalization and other related resources compared to Big Tech that control the platforms. Aside from taking from up to 40% in sales commissions, e-commerce platforms also abuse sellers' and buyers' data.²³ Using insights gained from data analyzed by AI, they can undercut local sellers through offering competitive prices for the same products, segment and target buyers, and manipulate search results to direct buyers to the Big Tech's own e-commerce shop. This puts into question whether local medium, small, and micro enterprises (MSMEs), especially those owned by women, are benefitting from e-commerce platforms by expanding their reach beyond national borders. There is scant evidence to prove that this is happening. In 2021, studies were done by the International Financial Corporation in partnership with e-commerce platforms Jumia in Africa²⁴ (Nigeria, Kenya, Cote d'Ivoire) and Lazada (majority owned by Alibaba) in Southeast Asia²⁵ (Indonesia, Philippines) on women's participation in these platforms. Results showed that even though there is a higher incidence of women-owned businesses in the countries where the study was conducted, these are smaller, have lower average sales and have fewer employees compared to male-owned businesses.

Box 2. Cryptocurrencies: Reinforcing Illicit Financial Flows and Inequalities

Cryptocurrencies have gained popularity because of their supposed advantages such as resistance of fraud, prevention of leakage of personal information, instant and secure transactions, and freedom from central bank regulation. Some claim that this can promote financial inclusion for unbanked populations in developing countries as access to physical banks is not needed to join and make transactions. Unlike fiat money, cryptocurrencies such as Bitcoin, Ethereum, Tether, and Binance are digital, encrypted, and decentralized mediums of exchange based on blockchain technology, which is supposed to be immutable and therefore not susceptible to manipulation.

The decentralized nature of cryptocurrencies and the possibility to make untraceable transactions using these currencies makes them hard to regulate and prone to being used to channel illicit financial flows.

Cryptocurrencies are targeted for transferring money for illegal activities including in countries such as Russia,²⁶ Bosnia and Herzegovina, Montenegro, and Serbia.²⁷ The untraceability of incomes and transactions in cryptocurrencies also make them difficult to tax, which can harm the tax base of governments, especially developing countries.

The digital divide also prevents widespread access to cryptocurrencies, which can be another source of inequality. Evidence indicates that wealth inequality in cryptocurrencies mirror that

of the real-world economy.²⁸ A study conducted by National Bureau of Economic Research (NBER) in 2021 found out that just 0.01% of the estimated 114 million people holding Bitcoin own 27% of the 19 million bitcoins in circulation.²⁹ The study also found out that just around 50 miners or 0.1% control 50% of the mining capacity in Bitcoins.

Mining cryptocurrencies is targeted by climate justice activists because it is energy-intensive, which contributes to GHG emissions especially from energy systems that are dependent on fossil fuels. Kazakhstan, which became the 2nd top location for bitcoin miners after the Chinese crackdown, suffers from power outages due to the large stress of the power consumption on the country's already ailing and coal-dependent energy infrastructure.³⁰

Box 3. The Digital Divide and Climate Change

The sixth assessment report of the Intergovernmental Panel on Climate Change (IPCC) has warned that Earth is very close to irreversible tipping points and that humans will face unavoidable multiple climate hazards over the next two decades. Inaction will lead to loss of life, biodiversity, infrastructure, and increased inequalities.

According to the International Telecommunication Union (ITU), digital technologies contribute to both worsening climate change as well as to solving it.³¹ Using digital technologies produces carbon emissions from energy use and contribute to toxic e-waste often dumped in low-income countries.³² On the other hand, digital technologies promise to improve monitoring temperatures, carbon dioxide, and pollution levels, and forecasting of extreme weather events. They also have the potential to reduce carbon emissions from other sources by replacing travel with teleworking and videoconferencing, or physical books with electronic books.

Developing countries and marginalized populations disproportionately suffer the combined impacts of the digital divide and climate change. First, while developing countries have significantly lesser GHG emissions compared to developed countries, they are more vulnerable to the impacts of climate change. Second, the minerals and metals used to produce digital technologies (laptops, cellphones, batteries, microchips, etc) are extracted from developing countries which contribute to environmental destruction and GHG emissions. Factories that manufacture digital technologies are also often located in developing countries where labor is cheap, flexible, and working conditions are bad. Lastly, structural inequalities at the global, national, and community levels prevent developing countries and marginalized populations from accessing digital technologies that can help them adapt to climate change.

Protection of Human Rights

The protection of human rights is a major concern in the digital economy. The widespread use of digital technologies such as social media, shopping and ride hailing applications, as well as some COVID19 contact tracing apps enables the collection of personal data of individuals such as names, addresses, spending habits, and even daily routine movements. Surveillance is further taken into another level in the Smart Cities, particularly those being built by China within its own borders as well as in other countries through investments in the Belt and Road Initiative. China's Safe City video surveillance technology integrates various "public security solutions," including command centers, CCTV cameras, intelligent video surveillance, facial and license plate recognition, crowd monitoring, situational awareness detection, noise monitoring, abandoned object detection, and social media analysis. This technology has been deployed in Central Asia and Southeast Asia to enhance urban security. However, similar systems have been used within China, particularly in Xinjiang, where their deployment has contributed to extensive surveillance of the population and has been linked to human rights abuses.

While job precarity predates the rise of technology companies, it is certainly being exacerbated by them. In the gig economy platforms, the seeming lack of employer-employee relationship between the worker/service provider and the platform, and the lack of collective bargaining, prevent workers from demanding job security, protection, and living wages from the platform's company. Additionally, the non-requirement of local presence of the platform's company poses difficulties to the implementation of domestic rules on employment and workers' rights, including those that affirm women's rights such as maternity leave and childcare benefits. The flexibility offered by platform jobs, while providing women income, glorifies the situation where women are doubly burdened by unpaid care while working in insecure and unprotected jobs.³³ They also face difficulties in finding protection from gender discrimination and sexual harassment. In a study done by ILO on app-based taxi and app-based delivery workers, female respondents in Indonesia were more likely to have experienced or witnessed discrimination or harassment than their male counterparts.³⁴

Al and the algorithms on which they are based on control the work allocation in platform-based jobs. Because of this, these technologies need to be examined to prevent any possible discrimination especially against already marginalized sectors. However, proposals in digital trade rules on secrecy and intellectual property can prevent the examination of algorithms, which are often designed by men without consideration for gender-specific needs or biases. There is evidence that gender-biases in Al have been detrimental to women where Al determine allocation of jobs, resources, and services.³⁵

Meanwhile, the application of digital technologies such as GPS and blockchain found its way into facilitating investments in land and agriculture. While these technologies can help governments attract and manage foreign investments into their countries, they have negative implications on the right to land of groups that are traditionally marginalized such small farmers, especially peasant women. The rights of indigenous peoples can also be violated, since their customary practices of land ownership may not be acknowledged by governments and may not align with individual forms of land ownership favored by investments.

Box 4. Digital Land Grabs

With the aid of GPS, blockchain technology is currently being used to digitally identify and record parcels of land to make them available for foreign investments. Blockchain, which is also the underlying technology in the operation of cryptocurrencies, is a decentralized, distributed database that packages records of transactions or values into encrypted blocks and sends them across a (public or private) peer-to-peer network. Each data block contains a digital signature (hash), timestamp and a reference to the previous block, creating a growing chain of unalterable records. In the context of land administration, it is being used to record land titles, facilitate land transactions, and make information about these available in web-based platforms and/or mobile apps.

Proponents such as World Bank, Asian Development Bank, and private companies selling the technology argue that using georeferencing and blockchain will reduce costs for governments in land administration, lessen fraud and corruption, and facilitate the access to information between landowners and potential investors. However, the digitalization of the land registration and titling process is currently worsening landgrabs in developing countries.

In Argentina, Paraguay and Bolivia, land registration with the help of georeferencing enabled corporations and rich individuals to seize public lands as well as lands traditionally occupied by Indigenous peoples and small farming communities.³⁶ The requirements of digital land registration worked against the marginalized communities who did not have access to the technology, finance, and services needed to register their lands. In Rwanda, the government implemented a digital land registration system starting in 2009 which was funded by DfID, Sweden, The Netherlands and the EU. The information in the land registration system was also made available to microfinance institutions and banks who in turn are able to define their customer base and make loan decisions to Rwandans who resort to distress borrowing. An evaluation report of the initiative warned that the digitalized land registration may facilitate land concentration among the affluent and worsen rural poverty as it is now easier for poorer households to sell their lands in times of distress.³⁷

Box 4. Digitalization of Agriculture

The impacts of climate change on food production provided the impetus for big agricultural corporations such as Bayer and non-profits such as the Bill and Melinda-Gates Foundation promote climate-smart agriculture using genetically modified seeds (GM seeds), chemical pesticides and fertilizers, as well as digital agricultural systems. Digital agriculture proponents claim that with the help of sensors and unmanned aviation systems (aka drones), the use of farm inputs such as water, fertilizers, and pesticides can be monitored and be made more

efficient. They also claim these technologies can be used for surveillance of plant diseases, to develop solutions and predict harvest outputs that can facilitate trade in agricultural futures, and help farmers access credit. Robotics and remote access would potentially replace physical human labor and in turn make farm processes more efficient.

However, the digitalization of agriculture increases agri-giants' control of food systems through their collection of agricultural information when using digital technologies. They are able to shape how agriculture is done according to their business models. This not only increases the revenue for agri-giants, but also erases local and indigenous knowledge systems of farming which gets replaced by chemical-based agriculture prescribed by digital platforms and technologies developed and deployed by agri-giants and technology companies. For example, Bayer's Climate Field View collects data on soils and plant diseases from more than 60 million hectares in 23 countries.³⁸ Through using the Xarvio Scouting App, farmers can upload photos of their plants which then recommends which Bayer product is appropriate. Microsoft Azure FarmBeats also has the same functions. It provides advice to farmers what products to buy from which companies based on the data that they upload. Farmbeats also partnered with Seed Studio to develop sensor boxes that monitor environmental conditions that affect crop growth and send this information over the internet to Microsoft.³⁹

Digital Colonialism

The dominance of developed countries and their corporations in the digital ecosystem—including software, hardware, and network connectivity—exacerbates unequal power relations between them and developing countries.⁴⁰ In this unequal relationship, developing countries are not only dependent on developed countries and their corporations to access to the digital ecosystem, but they are also systematically fenced-off from benefiting from digitalization because of existing and emergent trade rules and taxation. Meanwhile, corporations extract profits from developing countries, for various goods and technology products and services, for rents from intellectual property, increased flexibility of labor in the platform-enabled gig-economy, and for grabbing resources such as land.

New digital technologies are also capable of harnessing vast amounts of networked data from users of services apps such as Uber and Food Panda, online marketplaces such as Amazon and Shopee, social media platforms such as Facebook and Instagram, as well as searches in Google and Google Maps.

Data collected is not only limited to names, ages, and addresses; it also extends to friendships, relatives, political leanings, preferences, places travelled to, spending behavior, etc. Big Tech profits from this enormous invasion of privacy by first privatizing data collected from people through tacit and implicit end user agreements. End-users are dispossessed of and lose control over their data which can then be commodified and processed through the help of AI. The use

of AI to connect individual data points across users, time, and space, help corporations identify individuals and behaviors, develop new product and services that can be targeted at specific consumers with enhanced personalized advertisements, and improve their forecasting abilities.⁴¹ Through these capabilities, corporations can continuously extract data from end-users, shape behaviors and social interactions in ways that maximize profitability, and facilitate the large-scale colonization and commodification of daily life on an unprecedented scale.⁴²

With the increase of network connectivity, cloud computing is also on the rise wherein physical data can be stored in 'clouds', or external data servers which can be accessed anytime and anywhere with internet connection. This increasingly removes the need for high-capacity physical data sources in the form of internal memories on computers or external hard drives and enhances mobility and cross-border flows of data. However, this further intensifies the loss of control of users on their data as capacities to house these data centers are mostly concentrated in China and the United States.

Our Recommendations: A Global Technology Assessment Mechanism and Governance Framework at the UN

Past and current FfD meetings and other multilateral processes tackling technology and development have largely failed to address the causes and impacts of the digital divide. Instead of enabling the self-serving push from Big Tech, the UN should support inclusive multilateral processes to address the development divide that underpins the digital divide, to regulate and curb the growing concentration of powers and wealth of Big Tech and ensure that human rights are protected.

A new digital economy based on redistributive justice is urgently needed. Governments and multilateral institutions must uphold the technological sovereignty of developing countries. A new digital economy based on redistributive justice aims to build a democratic, rule-based governance regime for the digital paradigm that can rein in Big Tech corporations, and re-imagine platform, data, and AI-supported production models towards economic selfdetermination of nations and peoples. Governments must revisit existing trade and taxation rules related to the digital economy. They should make sure that these are aligned with enabling developing countries determine their own laws and policies that will allow them to produce and use technologies suitable for their development needs.

Among the measures that the UN should take to address the adverse consequences of digital technologies on society, the environment and people is establishing a global technology assessment mechanism and governance framework at the UN:

Such a UN member-state led process should evaluate the impacts of digital technologies on society, including on women. It should be broad, transparent, inclusive, accessible, and allow for participatory technology risk assessments that involve those who will be impacted by digital technologies. These risk assessments should be done prior to and during the development of digital technologies, as well as during their deployment for use. The risk assessments should take into account potential environmental, social, health and other impacts of technologies on society, especially women and other marginalized sectors. This can ensure transparent and inclusive deliberations on the impacts of digital technologies and facilitate multilateral cooperation to ensure the common good remains as the ultimate goal and takes precedence over profits when developing and applying digital technologies.

It should also regulate technology markets, equitably distribute the benefits of technologies, including digital ones, and effectively address and mitigate their risks. Further, it should provide guidance for the regulation of Big Tech, especially their transnational operations that have transboundary impacts. Regulation should also be applied to the development and deployment of digital technologies, including AI, which can have profound adverse impacts on the environment, human rights, as well as developing countries' prospects for sustainable development. It should also provide for the review and normative guidance of financial technologies, including cryptocurrencies and their trading. While there are various on-going initiatives both at the national and regional levels, a UN member state-led global framework is needed to ensure that these governance initiatives are complementary and do not disadvantage developing countries.

Box 5. Technology Assessment Platforms

New technologies are being developed and proposed for solving problems such as climate change, hunger, pandemics, and biodiversity loss. However, as shown above, these technologies also have the potential to cause other problems such as environmental destruction and human rights violations, as well as worsen the problem that they originally intend to solve. Open, participatory, and democratic mechanisms must be put in place to ensure accountability for the impacts of new technologies. Among such mechanisms being explored by grassroots communities and civil society are people-led technology assessments.

People-led technology assessments are being done by civil society to enable wider participation in the development and use of technology. One such example is the technology assessment platforms (TAPs) that evaluated technologies such as "terminator seeds" in Latin America, genetically modified crops in Mali, and golden rice in India. Such people-led technology assessment initiatives contribute to the democratic governance of technology where people who might be affected or people who have expertise through their life experience – including indigenous peoples, farmers and fisher folk, who are often part of popular and social movements—are meaningfully involved in the process. These initiatives can be part of the processes under the proposed Global Technology Assessment Mechanism at the UN.

To learn more about people-led technology assessment, visit <u>https://assess.technology/about/</u>.

How to engage?

The CS FfD Mechanism has been campaigning and advocating for stronger international cooperation on technology issues through multiple entry points. Examples include: direct engagement on technology in the FfD process by providing inputs to the yearly Financing for Sustainable Development Reports, to the FfD Forum negotiations, and the Multi-Stakeholder Forum on Science, Technology and Innovation for the SDGs (STI Forum). FfD and technology issues are coordinated on a FfD technology listserv. To join the CS FfD Group, please fill the google form at this link: link.

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Endnotes

¹ 1 zettabyte = 10¹² gigabyte

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