International Organizations Clinic, NYU School of Law*

Submission for the Review and Update of the ADB Safeguard Policy Statement

April 24, 2022

We welcome the opportunity to offer comments in relation to the review and update of the 2009 Safeguard Policy Statement (SPS) of the Asian Development Bank (ADB). We also thank the staff of the ADB for engaging with and providing constructive feedback on the analysis in this submission.

This submission is accompanied by a 2021 case study on an ADB-funded e-health project in Tonga, which builds on the analysis in this submission to illustrate in practical terms how risk in digital development projects can be assessed.

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Views and analysis expressed in this submission, as well as any errors, belong to the International Organizations Clinic and should not be attributed to any of the commentators.

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Definitions

Data: in the context of this report, including as used in defining other terms, refers to digital data.

Digital development: the design and deployment of digital technologies in pursuing development projects funded by multilateral development banks.

Digital risks: risks that may arise or that may be exacerbated by digital transformation or implementation of advanced technologies in digital development projects,

Digital infrastructure: systems of hardware and software that create, process, store, exchange or use data as a part of their operation. Digital infrastructures are more than mere technical objects. They incorporate technical standards and rely on organizational, social, political and legal norms and practices that structure, enable and support their ownership, maintenance and operation.

Digital technologies: include data and digital products (e.g., software, machine-learning models and algorithms, platforms, etc.) as well as hardware that enables internet connectivity, or generation, storage, processing and transfers of data (e.g., satellites, teleports, devices, sensors, processing chips, etc.).

Safeguards Policy: the 2009 Safeguard Policy Statement (SPS) of the Asian Development Bank.

Part I. Introduction

Increased use of digital technologies is fundamentally transforming the economic, political and social landscape, including the field of international development. Many if not most of the development projects funded by Multilateral Development Banks (MDBs) today have a digital dimension. Some development projects, such as digital ID or e-government projects, are primarily digital, while many others which also have significant physical components implement or integrate digital technologies in less obvious ways.

Like many transformative forces, digital technologies can both provide significant benefits for development, as well as raise an array of serious risks. While some of these risks present relatively new dimensions, such as the risks associated with facial recognition and other powerful technologies facilitating digital surveillance, others are more familiar and entail exacerbating existing problems. For example, digital ID systems can exacerbate the exclusion of certain groups or populations from welfare systems and social services.[1] Similarly, algorithms can exacerbate the existing marginalization of certain communities if they are based on discriminatory data or written in a discriminatory way.[2] Further, both the scale and the time-frame of digital development projects can be more expansive and less predictable than traditional physical or non-digital projects, which similarly affects the range, scope and foreseeability of risks associated with them.

Like most development banks, the Asian Development Bank (ADB) has a range of sophisticated existing practices and policies, including safeguard policies, to address different kinds of risk. And while these are crucial to help detect and avoid potentially serious harms to communities affected by the projects funded, they can also create bureaucratic requirements which become onerous for borrowers and bank staff alike. Further, in a competitive commercial environment, development banks may worry that the creation of new forms of risk assessment, pre-project appraisal, or consultation will drive business away. Nevertheless, public development banks differ from commercial banks in important ways, not only in their interest rates and lending terms but also in their mandates, which are premised on the idea that development is intended to serve the public interest. In that sense development banks are charged with considering not only the interests of their shareholders and borrowers (commercial and sovereign alike), but also, and equally importantly, the intended human beneficiaries of their projects.

Apart from their mandate to promote a public-regarding form of development, multilateral development banks have other strong reasons to adopt a robust precautionary and planning approach towards the array of new and enhanced risks pertaining to digital development. In the first place, the risk of a high-profile and catastrophic digital event - e.g., an atrocity committed using new digital technology supported or supplied by ADB, or the impact of an internet shutdown - is

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[1] *See e.g.*, *Chased Away and Left to Die: How a National Security Approach to Uganda's National Digital ID Has Led to Wholesale Exclusion of Women and Older Persons* (Center for Human Rights at Global Justice, NYU, 2021).

[2] *See e.g.,* Betsy Anne Williams, Catherine F. Brooks and Yotam Shmargad, *How Algorithms Discriminate Based on Data They Lack: Challenges, Solutions, and Policy Implications,* 8 Journal of Information Policy 78-115 (2018).

something the Bank will want to avoid, for both reputational and potential liability reasons. In the second place, a sophisticated development bank like ADB is in a strong position to develop a role as regional leader and standard-setter when it comes to safeguards and risk-assessment policies. In the rapidly developing context of digital transformation, there is an opportunity for the ADB to adopt a forward-looking set of best practices for addressing digital risk which could be emulated or used as a model by others.

In discussing and addressing the risks of digitalization, multilateral development banks have so far focused primarily on issues of data privacy, cybersecurity, and to a lesser extent on algorithmic fairness. Given the existing attention accorded by development banks to these more obvious and pressing aspects of digital risk, our submission focuses instead on other important dimensions and examples of digital risk, including risks relating to obsolescence, dependence, data storage, as well as social marginalization. While some of these have received less attention as yet in the development sector, they are increasingly recognized in the broader literature on digital risk, and they call for careful consideration by multilateral and other public development banks as the shift toward digital development continues apace.

Part II. Assessing Risks in Digital Development: Challenges and Shortcomings of the Existing Framework

The ADB currently addresses risk through a variety of instruments of varying legal effect. The focus of each of these instruments differs across a number of parameters, including (i) who is being protected against risk, (ii) the spatial and temporal scope, and (iii) the type of risk. The Safeguard Policy aims to identify and mitigate risks *to communities* that fall into three categories - involuntary displacement, harms to indigenous communities, and environmental pollution and degradation. Risks *to the ADB* relating to project effectiveness and return on investment are addressed through a number of policies and sources of guidance.[3] Newer instruments have also been developed to address emerging issues such as gender equality[4] and climate vulnerability[5].

Within this framework, no policy or guidance currently addresses the particular – and in some respects novel - set of risks to communities and to project effectiveness that arise from projects involving digital technologies. This leaves digital development projects without a framework designed for and geared towards systematic risk identification, assessment, and mitigation of digital risk. The current Safeguards Policy Review Process affords an opportunity to consider the particular array of risks arising within digital development projects, and how they may be identified and mitigated or avoided going forward.

A growing body of literature has identified a spectrum of risks that new technologies can generate for individuals and communities, some of which are different, or arise in different ways, from risks created by projects focused on physical infrastructure. These range from concerns about privacy and surveillance, discrimination and loss of autonomy, private-sector dependence and technology obsolescence. This literature indicates that such risks are very much dependent on context, as well as on the technical design and the social, legal, and political frameworks and practices within which digital technologies are embedded or deployed.[6] Importantly, some data and digital technologies can be reused for purposes not contemplated by a given ADB-funded project.

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[3] *See e.g.,* ADB, *Financial Due Diligence for Financial Intermediaries: Technical Guidance Note* (December 2018), https://www.adb.org/sites/default/files/institutional-document/479716/financial-intermediaries-technical-guidance-note.pdf; ADB, *Guidelines for the Economic Analysis of Projects* (2017), https://www.adb.org/sites/default/files/institutional-document/32256/economic-analysis-projects.pdf; ADB, *Guide on Assessing Procurement Risks and Determining Project Procurement Classification* (August 2015), https://www.adb.org/sites/default/files/procurement-risks.pdf.

[4] *See* ADB, *Operational Priority 2: Accelerating Progress in Gender Equality* (September 2019), https://www.adb.org/documents/strategy-2030-op2-gender-equality; ADB, *Policy on Gender and Development* (July 2003), https://www.adb.org/documents/policy-gender-and-development.

[5] *See also* ADB, *Information Sources to Support ADB Climate Risk Assessments and Management: Technical Note* (2018), https://www.adb.org/publications/adb-climate-risk-assessments-information-sources; ADB, *Principles of Climate Risk Management for Climate Proofing Projects: Working Paper* (July 2020), https://www.adb.org/publications/climate-risk-management-climate-proofing-projects

[6] Angelina Fisher and Thomas Streinz, *Confronting Data Inequality*, Columbia Journal of Transnational Law (forthcoming Spring 2022), Parts I.C.-D. (Disentangling Infrastructures and Identifying Control over Infrastructure).

There are certain features of digital development projects that tend to present challenges for the application of the ADB's current Safeguards Policy. These features concern the scope, time frame, spatial impact, and publics or communities likely to be affected by the projects.

A. Scope: Broad Objectives and Underspecified Arrangements Make Risk Assessment Difficult

The ADB often identifies general objectives such as poverty reduction or gender equality for its digital development projects, but without detail as to how the project aims to or could achieve such objectives. The terms and details relating to the design and implementation of funded technologies are often under-specified[7] without providing information about how a particular technology will interact with existing organizational and social practices, or with the borrower's legal and regulatory frameworks. Additionally, digital development projects often rely on contracts with private sector providers to supply technical expertise or design and implement the funded technology, but the terms of these arrangements are undisclosed. Yet this information is critical to understand how objectives may be achieved and to identify risks that may arise from the implementation and operationalization of the technology. Thus, the broad scope of many digital development projects combined with limited information about the context within which they will be operationalized makes it difficult to assess potential digital risks.

B. Time: The Short Term of Projects May Not Match the Longer Period of Risk Materialization

Digital development projects tend to have a relatively short term. Often, this relates to the lender's desire to be repaid before the technology becomes obsolete.[8] Yet the implementation of the technologies often takes a longer time, in part because it may require adjustments to organizational and social practices, or the creation or amendment of legal and regulatory frameworks. For example, implementation of an electronic records platform in a health system may require the adjustment of legacy practices (e.g., protocols for analog record-keeping by hand), implementation of training programs for health workers, or creation or amendment of legal frameworks governing the collection, processing, and use of health data.[9]

Harms and risks created by digital development projects may also take time to materialize as uses of digital infrastructures expand, evolve, and are repurposed. For example, data collected through earth observation ("EO") technology for land use planning could over time be used to identify and target

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[7] This is often because what is funded by the ADB is a 'concept', and it is intended that bids will be solicited from consultants or other private parties for the design of the technology itself.

[8] *See e.g.,* Asian Infrastructure Investment Bank, *Digital Infrastructure Sector Strategy: AIIB's Role in the Growth of the Digital Economy of the 21st Century* (June 2020), https://www.aiib.org/en/policies-strategies/operational-policies/digital-infrastructure-strategy/.content/_download/AIIB-Digital-Strategy.pdf, p. 7

[9] For an in-depth analysis of digital risk in projects implementing electronic health systems, see NYU School of Law, International Organizations Clinic, *Digital Risk Case Study - Tonga: eGovernment through Digital Health* (Working Paper, 2021) (attached to this report).

different communities for different and less positive purposes. Risks can also materialize and change depending on which actors get access to the data and technologies. For instance, certain types of EO data could be used by insurance companies to predict agri-risk and increase farmers' premiums.[10]

The mismatch between the term of the projects and the term of risk materialization also presents an accountability problem. Under the ADB's Accountability Mechanism, complaints cannot be raised regarding ADB projects for which more than 2 years have passed since the loan or grant closing dates.[11] Given the likely later materialization of risks, communities harmed by digital development projects funded by the ADB would have no effective recourse. Hence there is a tension between the Bank's interest in the short-term of projects in order to ensure repayment before obsolescence and the interests of communities who may be adversely affected by the technology at a later date.

C. Digital Infrastructures Can Span Multiple Legal Jurisdictions

The reach of digital development projects can be broad. Digital technology can involve physical and digital infrastructures and private actors situated across legal jurisdictions, and not necessarily within those of the intended beneficiary states, as in the ADB's recent *Kacific Project* (discussed further in Part IV, *infra*).[12] The relationship between these infrastructures and actors is governed by contracts. Frequently, however, neither the intended beneficiary states nor their constituents are parties to such contracts or aware of their content, even though the terms affect the degree to which communities benefit from the project, and consequently the extent to which the projects' objectives are realized. Furthermore, the degree to which governments can exert control over private actors managing such infrastructure will affect the scale of geopolitical risk, such as the risk that one country could cut off another country's internet access.

In projects requiring the generation, processing, and use of data, the regulatory frameworks of one jurisdiction may constrain the use of data in another, challenging overall project effectiveness. In the *AI Project* (discussed in Part IV, *infra*) for example, the success of the project depends on states having continuous and reliable access to open data from space agencies,[13] which in turn depend on

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[10] Geospatial World, *Boosting Agricultural Insurance Based on Earth Observation Data* (July 21, 2020) https://www.geospatialworld.net/news/boosting-agricultural-insurance-based-on-earth-observation-data/

[11] ADB, *Filing a Complaint*, https://www.adb.org/who-we-are/accountability-mechanism/how-file-complaint#accordion-0-3

[12] ADB, *Asia-Pacific Remote Broadband Internet Satellite Project*, https://www.adb.org/projects/53115-001/main

[13] ADB, *Empowering Developing Member Countries to Use Multi-Spectral Satellite Images and Artificial Intelligence for Land Use and Coastal Planning* , TA Concept Paper, para 6.

having permission to collect and use EO data and which may be curtailed by data use and collection regulations.[14]

D. The Impacted Publics of Digital Development Projects Are Varied and Dynamic

Digital development projects impact a range of publics, including those who use the infrastructure, whose work concerns the infrastructure (labor/workers), who might be impacted by the creation of the physical infrastructure, or who use or depend on the infrastructure.[15] The impacted publics may not even be situated within the same country, as when a submarine cable disruption in the Mediterranean Sea impacted populations in the Middle East and India.[16]

Risks of harm affect different constituencies in different ways. People dependent on internet access to obtain health services are likely to suffer more harm from internet latency disruptions than those using the internet for leisure.[17] Vulnerable populations also suffer disproportionately when data is used to make predictive assessments (e.g., in criminal justice) or to automate decisions about allocation of social services.[18] Without adequate planning, design, and mitigation, technologies can exacerbate existing risks of harm.

Given these specific challenges of digital development projects, we suggest that digital development projects require a deliberative planning approach - what we call an infrastructural approach - to help avoid risks such as those outlined above and in part IV below. In Part III, we outline the benefits of infrastructural thinking for addressing the various risks created by funding digital technologies. In Part IV, we illustrate how this approach might be operationalized in relation to such risks potentially

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[14] *See e.g.,* India's policy regulating remote satellite sensing, vesting the government's National Remote Sensing Centre with the power to "acquire and disseminate all satellite remote sensing data in India, both from Indian and foreign satellites." National Remote Sensing Centre, *Remote Sensing Data Policy*, https://www.nrsc.gov.in/EOP_irsdata_Policy/page_1?language_content_entity=en#:~:text=Government%20reserves%20right%20to%20impose,of%20the%20Government%20so%20require.

[15] Benedict Kingsbury & Nahuel Maisley, *Infrastructures and Laws: Publics and Publicness*, Annual Review of Law and Social Science (2021), https://www.annualreviews.org/doi/pdf/10.1146/annurev-lawsocsci-011521-082856 , p. 360

[16] Bobbie Johnson, *Middle East and Asia Lose Internet Access After Cable Fails*, The Guardian (January 30, 2008) https://www.theguardian.com/technology/2008/jan/30/asia.internet.outage.

[17] For e.g., during the covid-19 pandemic, students in rural areas or remote areas in India without internet access were more vulnerable to risks of disruptions in education than students in cities who had such access. *See* Aditya Wadhawan, *Rural School Students Pushed Far Behind Due to Covid,* The Times of India (March 5, 2022) https://timesofindia.indiatimes.com/home/education/news/rural-school-students-pushed-far-behind-due-to-covid/articleshow/90013770.cms

[18] See, e.g., Center for Human Rights & Global Justice, NYU School of Law, C*hased Away and Left to Die: How a National Security Approach to Uganda's National Digital ID Has Led to Wholesale Exclusion of Women and Older Persons*, (2021), https://chrgj.org/wp-content/uploads/2021/07/CHRGJ-Report-Chased-Away-and-Left-to-Die.pdf.

arising in a number of ADB projects. In Part V, we provide suggestions for how an infrastructural planning approach might be incorporated in ADB instruments and practices.

Part III. Infrastructural Thinking about Digital Development Projects

We suggest that *infrastructural thinking* provides a framework to help identify and mitigate risks associated with digital development projects. Following this approach, infrastructures are not viewed primarily as objects,[19] but as complex, relational, and essentially contextual structures.[20] A satellite ground station or teleport by itself is not an infrastructure; it becomes infrastructural when constructed, maintained and operated to communicate with orbiting satellites and when linked with other technologies, practices, and rules that generate and distribute the transmission of broadband internet to end-users. Similarly, an AI-data processing model becomes infrastructural when it is embedded into pre-existing information technology infrastructure, interoperated with other data, digital and physical infrastructures, and situated within practices of policymaking and local land management practices.

Thinking infrastructurally encourages an examination of the public or private nature of an infrastructure, as well as its relationship to other infrastructures, communities, institutions, and applicable governmental regulations. It helps to highlight specific features of infrastructures which may expose risks that are not initially obvious, but once identified can more readily be assessed, mitigated, and remediated. This section considers how infrastructural thinking could be applied to the digital dimensions of development projects to help reveal and consider risks.

A. Infrastructures are relational.

Infrastructures create and shape social, political, technical, and economic relations. For example, applying an infrastructural lens to the *AI Project* highlights the fact that it will put geographically separated countries into a new set of relationships with each other and with technical providers.[21] These relationships will reshape the practices of government agencies involved (e.g. licensing entities) and communities affected by the resulting policies based on AI-processed data. Focusing on some of the risks that might arise from these relationships could prompt consideration of the governing agreements and an examination of how these Bank-financed technologies will affect and interact with existing practices.

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[19] *See* Angelina Fisher and Thomas Streinz, *Confronting Data Inequality*, Columbia Journal of Transnational Law (forthcoming Spring 2022), Parts I.C.-D.

[20] Historically, infrastructure was associated with large, durable, well-functioning systems and services, such as railroads, highways, and electricity grids, more recently, large-scale networked information and communication technologies have also become recognized as infrastructures (sometimes referred to as cyberinfrastructures or digital infrastructures). *See generally* Benedict Kingsbury and Nahuel Maisley, *Infrastructures and Laws: Publics and Publicness*, 17 Annual Review of Law and Social Science 353 (2021), https://www.annualreviews.org/doi/pdf/10.1146/annurev-lawsocsci-011521-082856

[21] ADB, *Empowering Developing Member Countries to Use Multi-Spectral Satellite Images and Artificial Intelligence for Land Use and Coastal Planning*, https://www.adb.org/projects/54321-001/main.

B. Infrastructures are embedded in existing infrastructures, practices, and laws.

Infrastructure is built on or into existing structures and practices,[22] and an infrastructural analysis will consider how new infrastructure interacts with pre-existing technologies as well as the relationships and practices which contribute to its operation.

Consider, for example, the choice of teleport sites in the ADB's recent *Kacific Project*.[23] Location choice is critical, as poor design and placing of teleports can lead to suboptimal performance. Situating teleports in isolated locations where lack of sufficient market might disincentivize internet service providers to upgrade or upkeep their networks can compromise the resulting connectivity. Relevant considerations for determining teleport locations include reliable good quality electrical supply, mild temperatures, lack of obstructions, access to internet service providers, absence of natural disasters, and civil unrest. Understanding the importance of teleport location choices and examining the considerations involved in such choices might reveal the differential impact of connectivity infrastructure on the quality of internet connection in different countries. Indeed, choices for teleport location are often influenced by market demands,[24] and while there is no publicly available information on the comprehensiveness of the assessment for Kacific's choice of teleport location, it was reportedly based on a country being a "priority market,"[25] accessibility of the property, and ease of licensing.[26]

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[22] For example, optical fibers run along old railroad lines; new systems are designed for backward-compatibility. Susan Leigh Star and Karen Ruhleder, *Steps Toward an Ecology of Infrastructure: Design and Access for Large Information Spaces*, 7(1) Information Systems Research, 111,113 (1994)

[23] ADB, A*sia-Pacific Remote Broadband Internet Satellite Project*, ahttps://www.adb.org/projects/53115-001/main. A teleport is a ground station that transmits data to and from the national fiber network to the satellite, and houses antennas and equipment that convert the Radio Frequency (RF) signal to an Internet Protocol (IP) signal for terrestrial connectivity. X2nSat, "What is a satellite gateway?," https://x2n.com/faq/what-is-a-satellite-gateway/.

[24] To illustrate, the West coast of the United States is host to numerous teleports and, reportedly, was originally prompted by the concentration of technological talent in California, the initial use of teleports (primarily for handling rich video content), and the demands of the media and content creation centers of California. Garrett Hill, S*atellite Internet Gateway Location Whitepaper*, https://x2n.com/blog/satellite-internet-gateway-location-whitepaper/.

[25] According to the CEO of Kacific, "Kacific chose to locate its ground infrastructure in the Philippines because it is a priority market for us. …Our beams will reach 100% of the nation's population across its many islands…." James Barton, *Kacific Taps ABS' Ground Infrastructure for Philippines Gateway*, https://developingtelecoms.com/telecom-technology/satellite-communications-networks/8709-kacific-taps-abs-ground-infrastructure-for-gateway-services-to-the-philippines.html

[26] In the Philippines, the teleports were located in the location that already was host to a cluster of other teleports. TC with ADB staff.

As applied to the ADB's *AI Project*,[27] an infrastructural analysis would consider the flow of data from its origin in the satellite to its end-use by governments and individuals, paying attention to sites of control and potential choke points. Consideration would also be given to the processes behind the maintenance of the physical infrastructure, access to data classification, communication of insights to policymakers, and filtration of data for the targeted purpose and audience.

C. Infrastructures may have a wide area of influence

Those affected by a digital infrastructure may not be equivalent to and may extend beyond its "legal publics."[28] The current ADB Safeguards limit the affected communities to those geographically proximate to the physical structures,[29] even though the area of influence of a digital development project may extend well beyond this. A fuller picture of the impact of digital development projects could help develop better processes for identifying the relevant constituencies and more suitable mechanisms of accountability. While the ADB will not necessarily be responsible for the full range of impacts that might flow from its support for a given digital project, careful identification of the range of constituencies potentially affected should highlight the tensions and interests that need to be managed and balanced.

One way to operationalize infrastructural thinking would be to require an Infrastructural Plan for projects which entail a significant digital dimension, which would include the participation of impacted communities, broadly conceived. (*see* Part V, *infra*)[30] The Plan could identify principles aiming to ensure inclusive, sustainable, and effective digital development, which would allow for

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[27] ADB, *Empowering Developing Member Countries to Use Multi-Spectral Satellite Images and Artificial Intelligence for Land Use and Coastal Planning*, https://www.adb.org/projects/54321-001/main.

[28] "Infrastructural publics" includes those who are connected in a relationship of mutuality vis-a-vis infrastructures, while "legal publics" includes those whom a particular law regulates. Benedict Kingsbury and Nahuel Maisley, *Infrastructures and Laws: Publics and Publicness*, 17 Annual Review of Law and Social Science 353, 360 (2021), https://www.annualreviews.org/doi/pdf/10.1146/annurev-lawsocsci-011521-082856.

[29] For example, for the purposes of environmental impact assessment, the "area of influence encompasses (i) the primary project site(s) and related facilities that the borrower/client (including its contractors) develops or controls, such as power transmission corridors, pipelines, canals, tunnels, access roads, borrow pits and disposal areas, and construction camps; (ii) associated facilities that are not funded as part of the project (funding may be provided separately by the borrower/client or by third parties), and whose viability and existence depend exclusively on the project and whose goods or services are essential for successful operation of the project; (iii) areas and communities potentially affected by cumulative impacts from further planned development of the project, other sources of similar impacts in the geographical area, any existing project or condition, and other project-related developments that are realistically defined at the time the assessment is undertaken; and (iv) areas and communities potentially affected by impacts from unplanned but predictable developments caused by the project that may occur later or at a different location. The area of influence does not include potential impacts that might occur without the project or independently of the project." ADB, Safeguard Policy Statement (2009).

[30] *See, e.g.*, City of Toronto, "Digital Infrastructure Strategic Framework" (2022), https://www.toronto.ca/city-government/accountability-operations-customer-service/long-term-vision-plans-and-strategies/smart-cityto/digital-infrastructure-strategic-framework/.

systematic consideration of potential risks facing intended beneficiaries. We return to the idea of an Infrastructural Plan in Part V.

The above analysis suggests that thinking of digital development projects as funding an object (e.g., an AI data analytics model, a satellite, an electronic data exchange) may not be as effective in revealing the impact and scope of a project as thinking of them as funding *a system*. An infrastructural analysis requires more deliberative and contextual planning and foresight, leading to a more precautionary, forward-looking and systemic approach to consideration of harms than the current risk-based approach under the Safeguards Policy. The next section offers suggestions as to how infrastructural thinking might inform the assessment of risks in digital development projects going forward.

Part IV - Digital Risk Assessment: An Illustration

Focused and systematic consideration of risks can enhance a project's effectiveness and facilitate the achievement of a funder's development objectives, while simultaneously ensuring the wellbeing of the intended human beneficiaries of the project. With respect to digital technologies, a number of multilateral development banks, including the ADB, have begun to pay attention to privacy, data protection and cybersecurity risks in particular. However, development projects funding digital technologies, or digital infrastructures, can generate other types of risks which have thus far received little attention.

An infrastructural analysis allows for a more deliberative, comprehensive and contextual consideration of different kinds of risks, including those that arise from the interactions between the funded technologies and existing infrastructures, practices and laws. This approach is illustrated below by reference to two current projects of the ADB.

The first project is a technical assistance project that involves the creation of an artificial intelligence data-processing model to be used by borrower states to process earth observation data to help with crop optimization and coastal land management ("*AI Project*"). The second project is a non-sovereign lending project that provides co-financing for the launch and operation of satellite broadband internet across the Asia-Pacific region ("*Kacific Project*").

Risks Related to Assumptions that Technology will Solve Social Problems

Both the *AI Project* and the *Kacific Project* have broad stated aims, including the reduction of poverty and the achievement of gender equality. But there is little explanation in publicly available documents as to how the funded technologies will lead towards those objectives. Digital technologies do not, in and of themselves, cause improvements in health, socioeconomic well-being, or equality.[31] Lack of attention to how the technologies funded by development banks will operate

[31] E. Morozov, S*ave Everything, Click Here: Technology, Solutionism, and the Urge to Fix Problems that Don't Exist* (2014). *See also* S. Prato, F. Sonkin, *Editorial: Inequalities, Financialization, Technology: Sometimes the Nearest Exit is Behind You*, Development 61, 1–5 (2018).

within an existing technical, social, legal and political context risks undermining the very objectives that digital development projects seek to achieve.

For example, if the *Kacific Project* is really to further its stated aim to "*make broadband internet access more widely available at cheaper and more affordable prices*"[32], an assessment of the affordability of internet access in targeted rural communities would be needed, rather than assuming that cheaper access for such communities will follow.[33] Similarly, if the *AI Project* is to help farming or coastal communities to improve their livelihoods, it would be important to ensure or encourage adequate consultation with the relevant targeted communities and not just the government ministries.

Risks related to maintenance & sustainability

Sustainability of digital technologies, such as software, depends on maintenance that includes both repair of unforeseen "bugs" and updates that enhance operability and ensure interoperability with other software or hardware.[34] It also requires anticipating future breakdown and planning for challenges to the functioning of digital infrastructure which might be posed going forward.

Earth observation technologies and data processing models are frequently updated and replaced by new versions.[35] Maintaining pace with these developments is crucial to the technology's reliability and continued functionality, which requires ensuring that projects are given both adequate funding and long-term training resources, with the long term view of developing and sustaining local capacity and expertise. For instance, the Technical Assistance Report prepared by ADB for the *AI Project* states that on-site or virtual training will be provided by the consultants to the government agencies, who will be responsible for maintaining and operating the Project's cloud-based solutions.[36] While this may offer adequate guidance for the initial deployment of the model, the longevity and the success of the project's development outcomes also depend on establishing a mechanism that fosters in-house expertise and maintenance capacity so as to empower government agencies and

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[32] ADB, *Asia-Pacific Remote Broadband Internet Satellite Project: Summary Poverty Reduction and Social Strategy*, accessible at <https://www.adb.org/sites/default/files/linked-documents/53115-001-sprss.pdf>.

[33] *See* discussion on *Risks of Marginalization, infra* Part IV.

[34] Lee Vinsel, Andrew L. Russell, The Innovation Delusion: How Our Obsession with the New Has Disrupted the Work that Matters Most (2020). *See generally* The Maintainers Project, https://themaintainers.org/

[35] For a discussion of how models can "drift" with the development of new factors of influence, *see* Neil Raden, *When model drift becomes a deluge - the Coronavirus pandemic wreaks havoc with data science and ML models*, *Diginomica* (June 18, 2020), https://diginomica.com/when-model-drift-becomes-deluge-coronavirus-pandemic-wreaks-havoc-data-science-and-ml-models.

[36] ADB, *Empowering Developing Member Countries to Use Multi-Spectral Satellite Images and Artificial Intelligence for Land Use and Coastal Planning: Technical Assistance Report* (Dec. 2020), https://www.adb.org/sites/default/files/project-documents/54321/54321-001-tar-en.pdf.

relevant communities to adapt the models to their evolving needs and to keep up with technological developments.

Additionally, because the operation of digital technologies depends on hardware and other physical infrastructure, their maintenance is equally critical. Disruptions to the different components of infrastructures can severely hinder project viability and risks disproportionately impacting those communities that have become dependent on services provided, or who rely on the technologies which depend on those components.[37] In the *Kacific Project*, for instance, both the physical integrity of the satellite and the continued viability and operation of the teleport sites are imperative for the continued internet access of recipient communities, and could be jeopardized if licenses for teleport sites are repudiated or if third-party operators become incapable of providing the required service.[38] In private lending and equity financing projects like the *Kacific Project*, provisions for operation, support and maintenance of the relevant infrastructure would usually be included in relevant legal agreements between Kacific and third party service providers. Neither the ultimate beneficiaries of the project (i.e. communities who would be receiving internet connectivity) nor the governments of the countries intended to benefit from the project are parties to those agreements, and may not even be aware of their terms. This creates a risk of disempowerment, placing the wellbeing of communities almost entirely in the hands of the private sector, whose interests of profit maximization may, over time, come into tension with the public interest and with development objectives. Given that the Charter of the ADB provides that the Bank shall "promote investment in the region of public and private capital *for development purposes*"[39] (emphasis added), it would seem important for the Bank to consider all of the risks that could undermine development purposes, including risks arising from stark power imbalances between the private sector and the communities intended to be served.

Risks related to data storage, generation, collection and processing.

A. Risk associated with cloud storage/computing

While access to cloud computing platforms, as contemplated in the *AI Project*, can be a valuable asset to a developing economy, reliance on cloud technology has notable downsides that should be addressed and mitigated. Cloud users lack control over these services and face restricted flexibility within them, raising risks of lock-in effects due to non-interoperability of services offered by

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[37] Zubaidah Abdul Jalil, *Tonga: How an Internet Blackout Left Many Desperate for Money*, BBC (Feb 7, 2022), https://www.bbc.com/news/world-asia-60210869.

[38] For instance, the "Subic" teleport site in the Philippines is leased from the Subic Bay Municipal Authority. ADB must consider the risks posed should that authority decide to terminate or not renew the lease, as it is currently unclear how long the lease term is. The site is also operated by ABS, a global satellite operator and services provider. ADB should consider risks posed should ABS suddenly be incapable of operating or maintaining the site.

[39] Agreement Establishing the Asian Development Bank, Article 2(i).

various cloud providers.[40] The type of cloud platform chosen for a project has important implications on who can access the data stored on it and on what terms.[41]

Governments of developing member countries ("DMC governments") should be made aware of the implications of different cloud models and given the ability to choose the model that best fits their geopolitical interests and regulatory structures. In the context of the *AI Project*, this would mean involving DMC government ministries earlier in the process. This would allow for consideration of which relevant parties may need access to cloud data, as well as of importance a government places on controlling data access.

B. Privacy Risks

Satellite imagery provides one example where digital infrastructure can implicate privacy interests even where generated data is not obviously personal data. Adding context to high resolution satellite images, such as by pairing them with geographical locations, can transform the individuals captured therein from being anonymous to being distinguishable,[42] thereby also transforming it into "personal" data[43]. Whether implicitly or explicitly, risks and biases can result from knowledge of detailed personal information, both within the context of the project outputs themselves (e.g., the quality of insight received by a farmer about their land) or other contexts in which the government interacts with its people (e.g., the grant of state aid to an individual).[44] Attention is thus required to risks raised by different types of data and in different contexts.

C. Security Risks

Operation of digital technologies can pose direct risks of cyberattacks and indirect risks to states' sensitive operations. For example, cyberattacks on the satellite and gateway sites of the *Kacific Project* could impact the confidentiality, integrity and availability of the infrastructure system.[45] Indirect risks

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[40] Dan C. Marinescu, Cloud Service Providers and the Cloud Ecosystem, in Cloud Computing: Theory and Practice (2nd ed., 2017).

[41] *See e.g.,* disputes over when access to data stored in the cloud can be granted in connection with discovery motions. *In re a Warrant to Search a Certain E-Mail Account Controlled & Maintained by Microsoft Corp.*, 829 F.3d 197 (2d Cir. 2016), reh'g en banc denied, 855 F.3d 53 (2d Cir. 2017); *In re Search Warrant No. 16-960-M-01 to Google, 232 F. Supp. 3d 708 (E.D. Pa. Feb. 3, 2017).* On different types of cloud storage and their implications for data access, see Paul M. Schwartz, *Legal Access to the Global Cloud*, 118 Columbia Law Review 1681 (2018)

[42] Megan M. Coffer, *Balancing Privacy Rights and the Production of High Quality Satellite Imagery*, Environmental Science & Technology (May 11, 2020), https://pubs.acs.org/doi/pdf/10.1021/acs.est.0c02365.

[43] *Id.*

[44] Deborah Lupton, Digital Risk Society, in The Routledge Handbook for Risk Studies (2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2511717.

[45] Joseph Marks, "Space could be the next frontier for cyber threats," The Washington Post (Nov. 8, 2021), https://www.washingtonpost.com/politics/2021/11/08/space-could-be-next-frontier-cyber-threats/.

may also arise from gathering satellite data imagery that captures sensitive government facilities or operations.[46] In Belgium, the Ministry of Defense threatened to bring legal action against Google in 2018 for obtaining satellite imagery of a covert military installation.[47] Governments may be wary that metadata processed in ADB projects may capture similar content, and thus limit the use of technology in certain areas or restrict the ability of other relevant groups (such as individual citizens) from accessing it in full. Such steps, if taken, could negatively impact the intended use of the technology funded by the projects. For example, if certain data becomes unavailable for use by the AI Model, the accuracy and reliability of the model's outputs may be compromised.

D. Data Collection & Processing Risks

The efficacy of AI modeling depends on accurately processing a continuous supply of reliable data. This means that attention must be given to the sources of data. For example, where data is generated through satellite observations, in regions with high incidences of natural disasters or unstable weather patterns, the risk of disruption to data collection is exacerbated. In Tonga, after a recent eruption of Hunga Tonga–Hunga Ha'apai[48], much of the land was blanketed by volcanic ash, likely to severely disrupt or even prevent data collection.

Processing of data also requires attention to misclassification errors, which pose substantial risks to effective policy-making. In a study of a prototype land cover map for Africa introduced by the European Space Agency in 2016, accuracy within and across the neighboring Sahel and Sudan regions varied drastically from three to seventy-one percent, due largely to misclassification of sand dunes and degraded land.[49] These challenges can negatively affect the quality of decision-making, resulting in unchanging or worsening environmental and resource problems that can significantly hinder the achievement of project outcomes. As a result, digital development projects executed in regions where data collection and misclassification errors are high should be identified as posing higher risks of failure and supplemented with appropriate backup resources.

Impacts on rights, dignity and wellbeing

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[46] Alice Pellegrino, et. al., "What are We Orbiting Towards? Evolution of the Satellite Industry to Better Manage Complex Risks," Prevention Web (August 18, 2021), https://www.preventionweb.net/blog/what-are-we-orbiting-towards-evolution-satellite-industry-better-manage-complex-risks.

[47] "Belgium to sue Google for not blurring images of defence sites," Reuters (Sep. 28, 2018), https://www.reuters.com/article/uk-belgium-google-idUKKCN1M814Q.

[48] Andrea Thompson, A*sh Blanketing Tonga after Volcano Eruption Creates Health Concerns*, Scientific American (Jan. 20, 2022), https://www.scientificamerican.com/article/ash-blanketing-tonga-after-volcano-eruption-creates-health-concerns/.

[49] Eirini Politi, et al., *Earth observation applications for coastal sustainability: potential and challenges for implementation*, Anthropocene Coasts (Sep. 20, 2019), https://cdnsciencepub.com/doi/pdf/10.1139/anc-2018-0015.

Introduction of new technologies and digitization can exacerbate existing risks, as well as create new risks of harm to the rights, dignity, and wellbeing of individuals and communities.[50] In many areas, access to technology is linked to socioeconomic status and gender.[51] Deepening reliance on technology can further entrench the disparity between social groups if not properly addressed at the outset of a project.

A. Risk of marginalization (affordability, connectivity)

While one of the aims of the *Kacific Project* is to "make broadband internet access more widely available at cheaper and more affordable prices,"[52] the project documents available do not indicate any assessment of the affordability of internet access for the rural communities served. The World Bank notes that an affordable entry-level broadband subscription would cost less than 5% of average per-capita income,[53] but in Kiribati, for example, the cost of internet provided by this project is 13% of income per capita.[54] Furthermore, nearly 2.5 billion people live in countries where the cost of the cheapest available smartphone is a quarter of the average monthly income, or more.[55] While parts of the population may use internet cafés to access the internet, this adds an additional cost barrier. And although the Kacific satellite project aims to provide service to rural populations, populations with the lowest income may not benefit from internet availability and may be further marginalized if services completely migrate online.

B. Socio-economic risks

Digital development projects can have significant socio-economic impact, forcing changes in behavior and practices among the impacted public. For instance, the skills necessary to deploy smart farming and planning practices in selected areas may foreclose entry by individuals who lack

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[50] Deborah Lupton, *Digital Risk Society*, in The Routledge Handbook for Risk Studies (2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2511717.

[51] Rahel Dette, *Do No Digital Harm: Mitigating Technology Risks in Humanitarian Contexts*, UNESCO Chair Conference on Technologies for Development (June 16, 2018), https://link.springer.com/chapter/10.1007/978-3-319-91068-0_2.

[52] ADB, *Asia-Pacific Remote Broadband Internet Satellite Project: Summary Poverty Reduction and Social Strategy*, https://www.adb.org/sites/default/files/linked-documents/53115-001-sprss.pdf.

[53] World Bank, *Connecting for Inclusion: Broadband Access for All*, https://www.worldbank.org/en/topic/digitaldevelopment/brief/connecting-for-inclusion-broadband-access-for-all.

[54] SpeedWave is the only ISP in Kiribati offering broadband satellite internet through Kacific-1. Kacific, "Find a Local Internet Service Provider close to you," https://kacific.com/kad?country=kiribati. The cost of internet services can be found on SpeeedWave's website, https://www.speedwaveki.com/.

[55] Alliance for Affordable Internet, "From luxury to lifeline: Reducing the cost of mobile devices to reach universal internet access," Web Foundation (2020), https://1e8q3q16vyc81g8l3h3md6q5f5e-wpengine.netdna-ssl.com/wp-content/uploads/2020/08/Alliance-for-Affordable-Internet_Device-Pricing_PUBLIC.pdf.

technological literacy, which may exacerbate wage inequality.[56] Data-driven policy making may also have negative impacts if implemented without adequate consideration of the context within which the policy will be implemented, and without any consultation of or input from the impacted communities. For example, errors associated with the use of earth observation technology for monitoring irrigation may lead to unnecessary water restrictions, which could have particularly detrimental effects in areas where farmers already suffer from frequent droughts.[57]

The reusability of data and data models can also lead to unintended consequences, if proper attention is not given to who can have access to data and data models, for what purposes and on what terms. For example, certain earth observation data can be used alone (or in combination with other types of data) by insurance companies in ways that could lead to increases in premium amounts charged to farmers. Big farms may be better equipped than smaller farms to make use of insights generated by the modeling in the *AI Project*, which can entrench or expand the domination of big farms and may, in some contexts, lead to the rise of monopolies to the detriment of the overall wellbeing of communities. In those instances, the development aims of reducing poverty and closing the income inequality gaps may be undermined.

Control over the infrastructure

How control over infrastructure (or its key components) is distributed can have a profound impact on project effectiveness and on the rights and wellbeing of impacted communities.[58] For example, a decision about where to place the teleports for the *Kacific Project* has differential impacts on the quality of internet connectivity available for the countries (and communities within countries) intended to benefit from the project. It appears that that decision was left entirely to Kacific. Although a number of factors were purportedly considered (including where there had been already existing teleport infrastructure), the decision to locate one of the teleports in the Philippines was apparently driven by Kacific's market interests: according to Kacific's CEO, "*Kacific chose to locate its ground infrastructure in the Philippines because it is a priority market for us…Our beams will reach 100 percent of the nation's population across its many islands, making affordable connectivity available to all those who are currently unserved or underserved*."[59]

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[56] Sarah Rotz, et. al., *Automated Pastures: and the digital divide: How agricultural technologies are shaping labour and rural communities*, Journal of Rural Studies (May 2019), https://doi.org/10.1016/j.jrurstud.2019.01.023.

[57] Timothy Foster, et al., *Satellite-Based Monitoring of Irrigation Water Use: Assessing Measurement Errors and Their Implications for Agricultural Water Management Policy*, Water Resources Research (Oct. 22, 2020), https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2020WR028378.

[58] Angelina Fisher and Thomas Streinz, *Confronting Data Inequality*, Columbia Journal of Transnational Law (forthcoming Spring 2022), Part I.D.

[59] James Henderson, "Kacific aligns with ABS' ground infrastructure in Philippines deployment: ABS' teleport in Subic Bay to "host, operate and provide" first-level support for Kacific's gateway hub", Channel Asia (Sep 2, 2019), https://www.channelasia.tech/article/665896/kacific-aligns-abs-ground-infrastructure-philippines-deployment/.

Similar concerns arise in the *AI Project*. The choice as to which actors are involved in data classification and AI model design, who will operate the cloud platform and on what terms, will affect how the model will be deployed, to what ends and by whom. If continuous access to data cannot be ensured, if government agencies do not have the ability to modify the model to fit their needs as they evolve, or if access to the platform and the generated insights are contingent on a particular provider's terms of access, then the ability of the project to effectively pursue its aims - e.g., improve agricultural output or enhance coastal land management practices - will be negatively impacted.

Conversely, government control over infrastructure may also produce harmful impacts. Consider, for example, that governments have increasingly sought to restrict uses of satellite data, including as a means of preventing political contestation of government actions. Most recently, in Cambodia (one of the intended beneficiaries of the *AI Project*), the Ministry of Environment has threatened to take legal action against the Prey Lang Community Network (PLCN) – a "*network of local community members working to save the Prey Lang forest from illegal logging and industrial agriculture*"[60] – for collecting deforestation data through the use of satellite imagery deployed by the University of Maryland (UMD).[61] The Ministry's Secretary of State stated that the satellite systems were being used in an "*unjustified and unauthorized way*" and that the PLCN and other organizations are acting in furtherance of a political, rather than an environmental, agenda.[62] The Forestry Administration Chief stated that the satellite images were "*biased" and technically unclear*",[63] arguing that the lack of clarity stemmed from unreliable images with "clouds obscuring more than 20 per cent the land mass."[64] Instead (and likely as a means of contesting the validity of the UMD data), the Cambodian Ministry of Environment had asked Japan for help in mapping its forests using satellite imagery.[65]

Effectively identifying and mitigating risks associated with infrastructural control requires adequate planning and public deliberation at the conception and design stage, with iterative review taking place throughout the implementation and operation of the projects. These and other recommendations are outlined in the following section.

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[60] Prey Lang Community Network, "About," https://preylang.net/about/plcn/.

[61] Amnesty International, *Cambodia's Prey Lang: how not to protect a vital forest* (Apr. 13, 2021), https://www.amnesty.org/en/latest/news/2021/04/cambodias-prey-lang-how-not-to-protect-a-vital-forest/

[62] *Id.*

[63] May Titthara and Kevin Ponniah, *Reforestry claim 'a stretch'*, The Phnom Penh Post (Feb. 4, 2014), https://www.phnompenhpost.com/national/reforestry-claim-'-stretch'

[64] *Id.*

[65] Phak Seangly, *Ministry asks Japan to help map out forests*, The Phnom Penh Post (Oct. 20, 2017), https://www.phnompenhpost.com/national/ministry-asks-japan-help-map-out-forests

Part V. Recommendations

ADB representatives who were consulted in the course of preparing this submission indicated that a number of risks identified had in fact been taken into account at various stages of the project lifecycle.[66] Many of the mitigation strategies that were adopted, however, - e.g., obtaining insurance policy - provided protection against the risk *to the ADB*, and not against the *risk to communities*. Whether, and if so to what extent, different risks of harm to impacted communities were considered is not known as there is no information about any such assessments provided in the ADB's publicly available documents. Furthermore, there does not appear to be a publicly available policy, directive or framework that would describe how the different risks to communities arising from digital development projects ought to be considered.

The ongoing Safeguards Policy Review provides an opportunity for the ADB to consider systematically and comprehensively how it might identify and address digital risk arising in the context of its projects and assistance. While development banks are certainly not responsible for every risk, remote as well as proximate, that materializes in the context of their projects, nevertheless it seems crucial – particularly in the context of digitalization which is fundamentally transformative and introduces a whole array of new kinds of risk and not just benefit – that they develop adequate practices and policies for detecting the kinds of risk that will seriously undermine the effectiveness of their projects, adversely affect their reputation, and harm the communities they mean to serve.

Building on the above analysis and adopting an infrastructural perspective, we suggest **two related and not mutually exclusive approaches** the ADB might adopt with a view to identifying and addressing digital risk. Furthermore, we concur with the recommendation of the Office of the United Nations High Commissioner for Human Rights ("OHCHR") that the integration of a human rights lens into ADB's due diligence and client risk-management practices would help focus the assessment of risk in digital development projects *on impacted communities*,[67] and would help to effectively promote development in the interests of communities.

A. Guidance Framework and Infrastructure Plan

A guidance framework for identification, assessment, and mitigation of risks in digital development projects would acknowledge that digital technologies are not objects or artifacts, but are

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[66] For instance, in the Kacific Project, risks related to physical infrastructure (such as failure to launch satellites, space debris or breakdown on physical internet infrastructure) were factored into the project diligence and project assessment. The risk mitigation strategy adopted was insurance coverage that would protect ADB's investment in case the risk materializes.

[67] In this regard, the OHCHR further notes that "*recommendations along these lines, if they are to have a positive impact, will require strong management support, sustained capacity building, and some degree of re-alignment of internal incentives, accountability procedures and reward systems*." Office of the United Nations High Commissioner for Human Rights Memorandum, *Comments on the Review and Update of the ADB Safeguard Policy Statement*, (April 29, 2021), https://www.ohchr.org/Documents/Issues/Development/DFI/ADB_SPS_29April2021.pdf, p. 3.

infrastructures embedded and entangled in a range of physical, social, political, economic, and technical systems.[68] Such a framework would be created through a deliberative and adequately participatory process, and could highlight a list of values or principles to guide the design and operationalization of inclusive, sustainable and effective digital development projects. A key feature of the framework would be the adoption of a **digital infrastructure plan**, which would take a longer-term view and could help in appraising digital technologies and the risks they create through a broader systemic and infrastructural lens, rather than addressing them as discrete objects.

A digital infrastructure plan would be adopted before a project begins and revised by the borrower throughout the duration of the project. Rather than imposing specific obligations on each project, the ADB would work with the borrower state to develop a plan that takes into account not only the short-term but also long-term impacts of the projects. Where ADB is financing a private actor, the private actor could be required to work with the relevant government agencies either to develop an infrastructure plan that takes account of the interests of different constituencies or to consider how the new project fits within the existing infrastructural plan of the state(s) in which the private actor aims to operate. This approach would ensure, among other things, that connection is made explicit between the funded technology and the achievement of identified objectives.

One key element of this approach would also be a commitment to increased transparency. Here we endorse the recommendations of the OHCHR that ADB should "*map different kinds of leverage (including commercial, contractual, convening, normative, and through capacity building) that may be built and deployed by ADB and its clients to address human rights risks in which they are involved*".[69] It would be equally important to map out and make transparent the terms of the legal and economic arrangements of different parties involved in projects to the extent that they impact the wellbeing and rights of impacted communities. Doing so would also illuminate key points of infrastructural control, would help to identify associated risks, and where necessary point to opportunities for voice and recourse for those affected by, but not parties to, such arrangements.

B. Strengthen civil society participation and consultation

Second, and importantly, **civil society participation and consultation of potentially affected communities in relation to digital development projects** should be strengthened and expanded. At present, it appears that consultation and participatory planning is stronger in sovereign lending than in private sector lending, but in neither case does it seem fully adequate to the needs of expansive digital development projects and infrastructures.

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[68] A similar framework was developed by the City of Toronto for digital infrastructures used to deliver services, perform data-driven asset management, help manage public resources efficiently, encourage civic engagement, and inform decision-making. *See* City of Toronto, Digital Infrastructure Strategic Framework (2022), https://www.toronto.ca/wp-content/uploads/2022/03/9728-DISFAcc2.pdf.

[69] Office of the United Nations High Commissioner for Human Rights Memorandum, *Comments on the Review and Update of the ADB Safeguard Policy Statement*, (April 29, 2021), https://www.ohchr.org/Documents/Issues/Development/DFI/ADB_SPS_29April2021.pdf, p. 22.

As noted in Part II, impacted communities under the ADB's current framework are identified from a perspective of "immediacy" and geographic proximity – i.e. communities more immediately affected by a project are considered important stakeholders for consultations. However, as described above, digital development projects often have a major impact on significantly more dispersed communities. To ensure that the rights, dignity, and well-being of those affected are duly respected, there is a need for participative and sustained consultations with the various publics of a digital infrastructure project. Throughout such consultations, tensions among different interests could more readily be identified, which would not only aid in identifying possible risks arising from such tensions but also allow for more creative and tailored mitigation strategies.[70] Attention should be given to setting up permanent structures and processes for enabling such improved consultations.

Lastly, changes should be considered to the terms of the ADB's Accountability Mechanism to account for the temporal mismatch between the terms of digital development projects and the timeline for the realization of potential risks. A full assessment of the necessary changes, however, is beyond the scope of this submission and would, in any case, require a separate consultative process.

[70] On desirability of public participation more generally, *see* Nahuel Maisley, *El campamento participativo. Por qué la representación política no es virtuosa en sí misma, sino en todo caso un mal necesario,* 96 Lecciones y Ensayos, 51-86 (2016).