



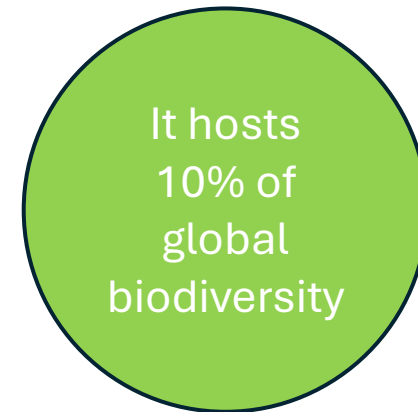
Advancing Amazon Conservation through Digital Technologies

Niccolò Comini – The World Bank



The report's approach

- The Amazon is a complex environment



- Digital technologies can play a critical role to advance conservation, however, their potential is largely untapped
- The report addresses this question through a specific approach of building blocks: (1) technology and apps, (2) digital infrastructure, and (3) data governance



Technology and apps



What is monitored?

Forest cover

Fires

Carbon Stock and Soil

Biodiversity

Climate quality / Air-Water quality

Human activity

How is monitored?

Earth observation

Drones

Weather stations

Mobile phone applications

eDNA

Camera Traps

Acoustic monitoring

Challenges to implementation

Financial and resource constraints



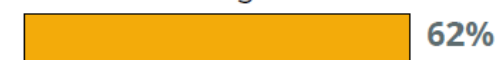
Limited technical infrastructure and logistics



Human capacity and training gaps



Weak governance and institutional fragmentation



Technology access and ease of use



Socio-cultural barriers



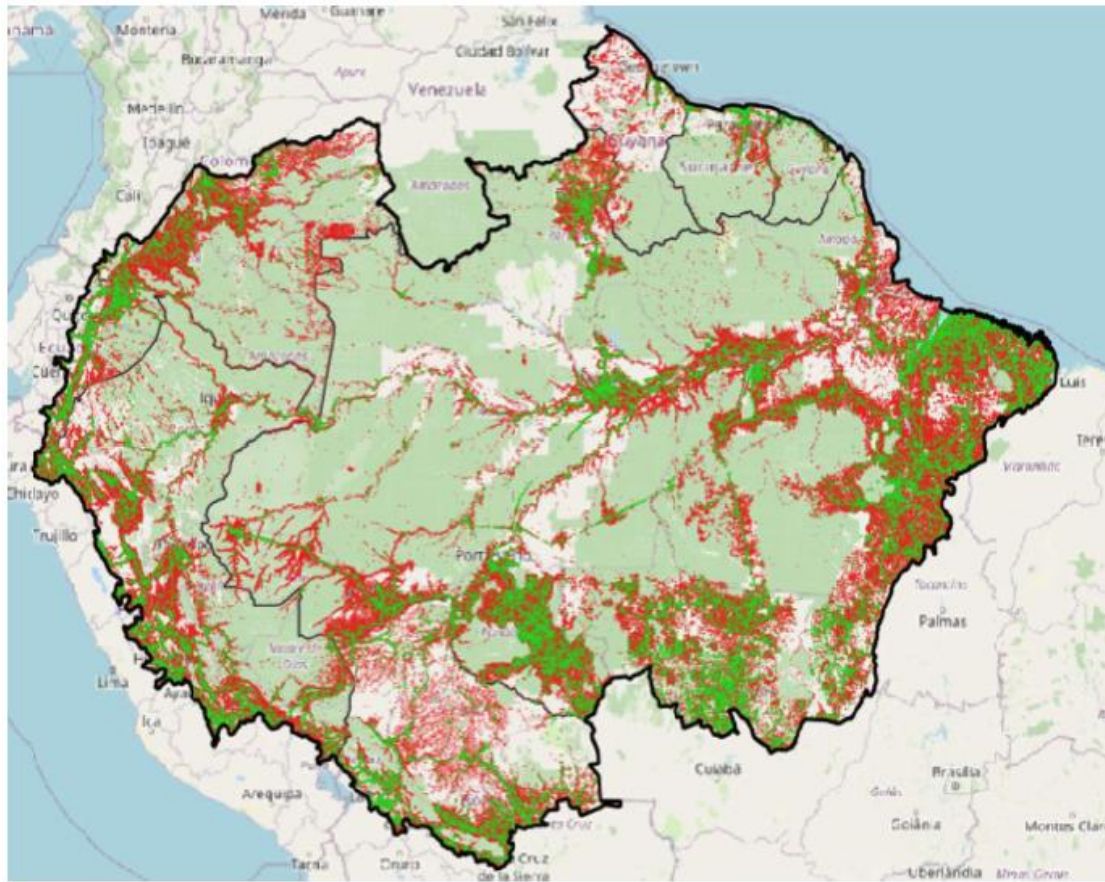
Source: Authors' analysis



Note: N=40



Digital Infrastructure



Internet coverage findings:

- 3.5% of the Amazon Biome
- 85% of the population
- 0.93% of the Indigenous Territories covered
- 63% of the population in the Indigenous Territories

Investments required:

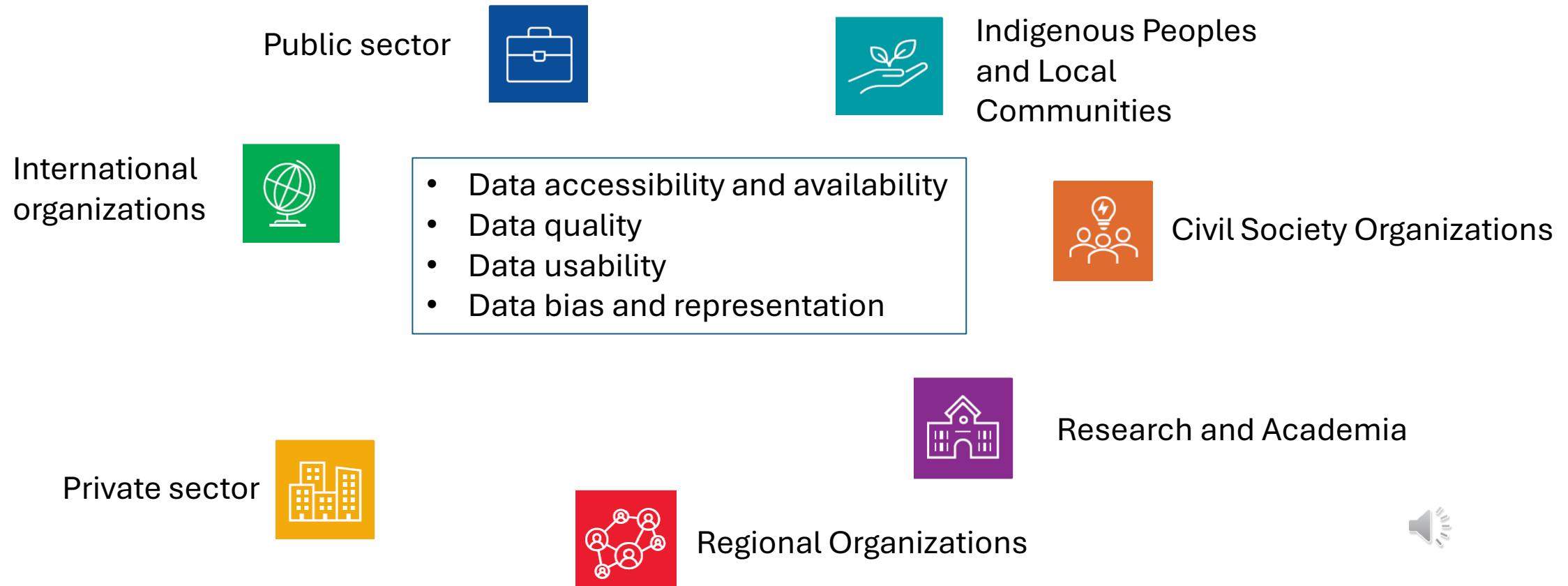
- 6-7 USDbn to cover 100% of the population
- Fiber and mobile networks represents 90% of the cost



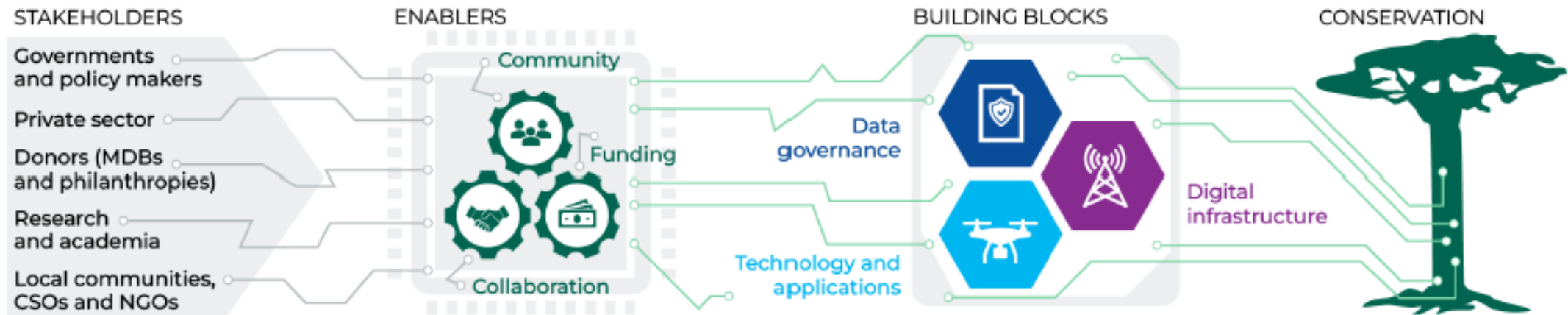
Data Governance



Data governance must be established and enforced by a highly fragmented ecosystem of stakeholders:



The Digital Conservation Value Chain



Recommendations



- Advance accessible and climate-positive digitalization to increase community resilience to climate threat.
- Focus capacity building efforts to Empower Indigenous People and Local Communities so that digitalization support local conservation strategies
- Design tools in close collaboration with the communities they aim to benefit so they reflect their perspective, habits and knowledge.



- Provide internet to remote areas leveraging new data transmission technologies together with off-grid energy solutions.
- Infrastructure must be prioritized and properly funded to remain updated and functional.
- Deployment projects should not interfere with the desire of non-contacted populations to remain isolated.



- Data governance frameworks should be established as part of a broader policy deployment to support digital conservation technologies locally and regionally.
- Promote regional cooperation and support ACTO's mandate.
- Co-design data governance frameworks with Indigenous Peoples and Local Communities. 



Thank you

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