



**Executive Board of the
United Nations Development
Programme, the United Nations
Population Fund and the United
Nations Office for Project Services**

Distr.: General
21 November 2023

Original: English

First regular session 2024

29 January to 2 February 2024, New York

Item 7 of the provisional agenda

Evaluation

Evaluation of UNDP support to the digitalization of public services

Executive summary

Summary

The present report summarizes the evaluation of UNDP support to digitalization of public services for the period 2015 to 2023, covering eight programme streams across different thematic areas and cross-cutting issues. The evaluation found that UNDP has played a crucial role in enhancing digital public infrastructure, which is critical for digital transformation of public services. Strategic preparedness at the corporate level enabled UNDP to respond swiftly to pandemic-related requirements, ensuring the uninterrupted delivery of public services. Going forward, there is considerable scope for UNDP to support the strengthening of digital public infrastructure and digital privacy.

Elements of a decision

The Executive Board may wish to: (a) take note of the evaluation; and (b) request UNDP management to address the issues raised in the report and its recommendations.

Contents

I.	Introduction	2
II.	Background.....	2
III.	The UNDP portfolio	3
IV.	About this evaluation.....	5
V.	Key findings	5
VI.	Conclusions	11
VII.	Recommendations	16

I. Introduction

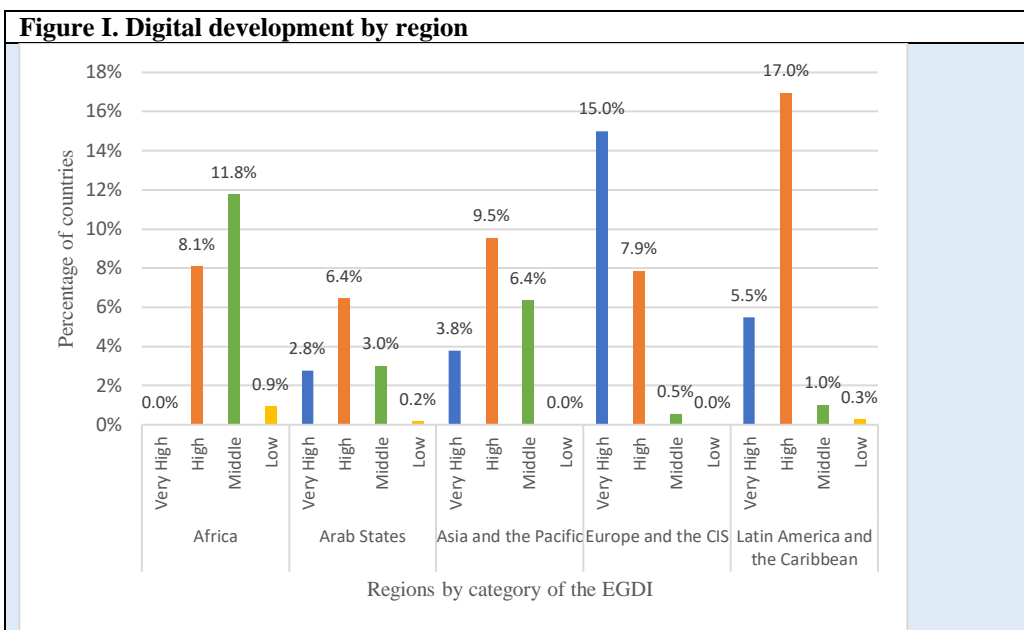
1. The evaluation of UNDP support to digitalization of public services is a global assessment by the Independent Evaluation Office conducted as part of the office's multi-year programme of work, 2022-2025, as approved by the Executive Board (DP/2022/6). The evaluation assessed UNDP programmes for the period 2015-2023, spanning three strategic plans (2014-2017; 2018-2021; and 2022-2025). The evaluation has a twofold goal of accountability and learning, providing UNDP management, the Executive Board, Member States and other stakeholders with an assessment of the UNDP contribution in this area and lessons learned around factors affecting its contribution.

II. Background

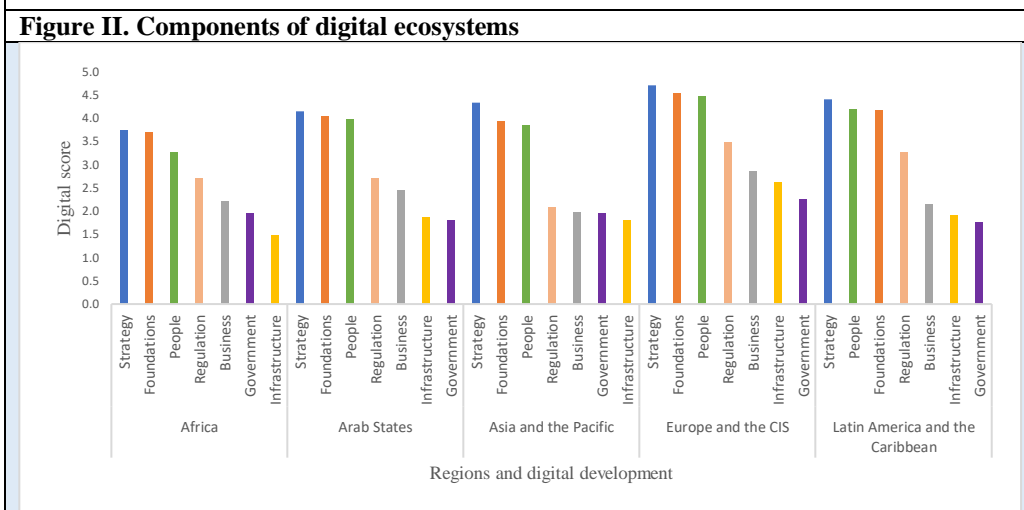
2. The digital transformation of the public sector has become increasingly critical as the world enters a new era characterized by rapid data growth, technological innovations and rising service expectations from citizens. This transformation has been driven by the proliferation of digital technologies, which have reached approximately half of the developing world's population in just two decades. Data is emerging as a strategic asset that can enhance the efficiency of service delivery and contribute to social, economic and environmental progress. Online interactions for public service delivery are faster, cost-effective and less susceptible to corruption than traditional, physical interactions. The volume of data generated in the last three years surpasses that of all human history,¹ with expectations of significant growth in global data. These trends highlight the profound impact of digitalization across all sectors, including trade and economic development, making it a crucial component in achieving the Sustainable Development Goals.

3. The coronavirus disease (COVID-19) pandemic accelerated the adoption of digitalization in the public sector, necessitating rapid implementation of innovations such as e-cash transfers, telemedicine, virtual education, virtual courts and e-commerce platforms. Despite the global trend towards digitalization, there exists a wide spectrum of digital development levels among countries and regions (figure I). The progress on different components of the digital ecosystem varied, however, with some regions progressing at a faster pace in specific areas (figure II). Strengthening digital public infrastructure (legal identity, data interoperability, digital financial services) and establishing governance frameworks for data protection, privacy and sovereignty are key accelerators of digital transformation.

¹ Portulans Institute-University of Oxford. (2022). [The Network Readiness Index 2022](#), p. 12.



Source: Prepared based on the [United Nations E-government Survey 2022](#) for 158 UNDP-supported countries. EGD I = E-Government Development Index



Source: Prepared based on the [UNDP Digital Development Compass](#). Figures updated as of 13 July 2023.

III. The UNDP portfolio

4. UNDP has supported information and communication technology and digitalization of public services for over two decades, and there has been an increase in this thrust since 2015. Its country programmes have supported national digitalization efforts across a range of public services. The Strategic Plan, 2018-2021,² for the first time emphasized the use of digital technologies for public service delivery to be prioritized in UNDP support. In 2019, responding to the need to ensure relevance at a time of rapid digital change, UNDP launched its first digital strategy, 2019-2021,³ to harness the power of digital technology and innovation in its support

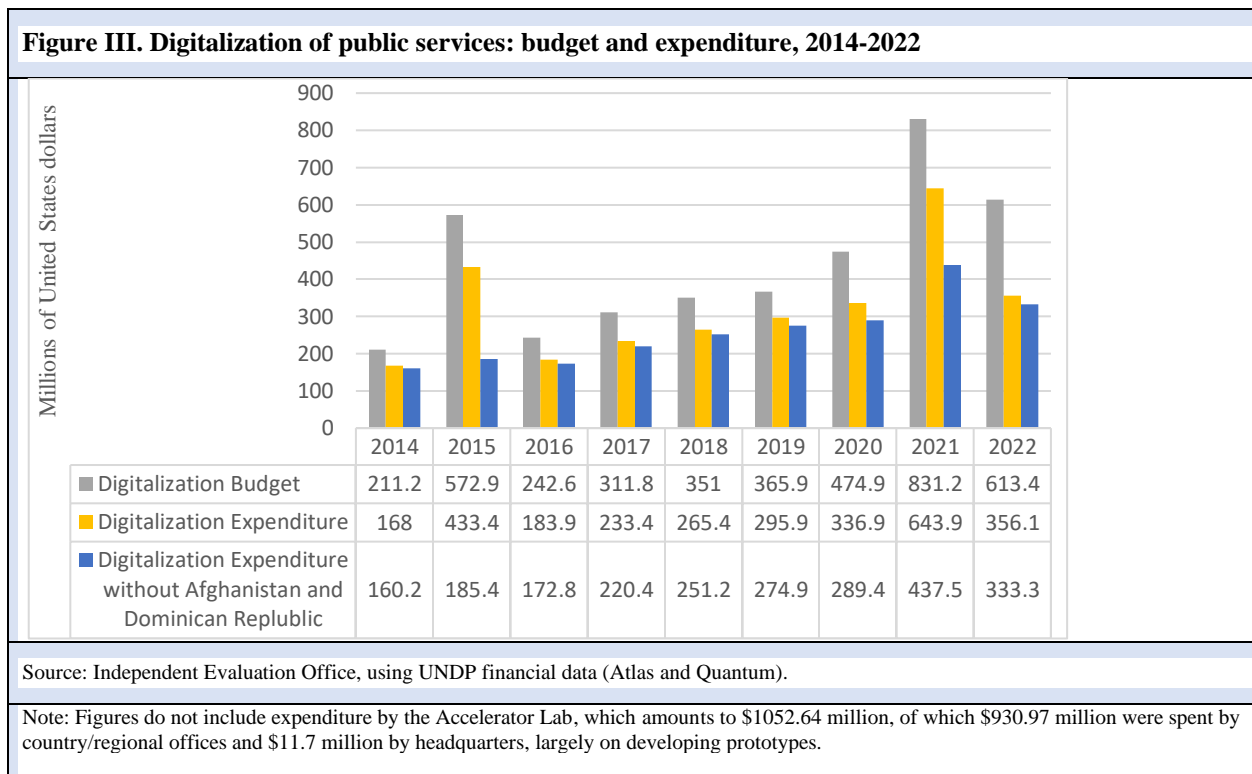
² UNDP Strategic Plan 2018-2021, [Annex 5: Integrated Results and Resources Framework](#), p. 24.

³ UNDP Digital Strategy, 2019, <https://digitalstrategy.undp.org/documents/UNDP-digital-strategy-2019.pdf>.

of country-level efforts to respond more effectively to development challenges. The second digital strategy⁴ is aligned with the current Strategic Plan,⁵ underscoring digitalization as a key development enabler and a priority for strategic programming investment.⁶ Digital public infrastructure is considered a cross-cutting theme and digitalization is explicitly prioritized across the signature solutions on poverty and inequality, governance, environment, energy, resilience and gender equality in the current Strategic Plan, 2022-2025. UNDP strategies aimed to drive digital transformation within the organization and its programme support. The policy aims to evolve UNDP into a “digital-first” organization, equipped with the necessary digital skills, processes and data to enable support to programme countries.

5. A Chief Digital Office has been established, led by a Chief Digital Officer and a team of experts, to provide advisory services, expertise and tools for digitalization. The office fostered a digital community through the experts at the regional level, Digital Advocates Network, Digital Competencies Mentorship Programme and a community of practice to guide country-level digitalization.

6. From 2014 to 2022, UNDP allocated \$3.97 billion to 578 digitalization projects, accounting for 6.2 per cent of its total expenditure. Expenditure on digitalization projects increased from \$168 million in 2014 to \$356.1 million in 2022, peaking at \$643.9 million in 2021 due to COVID-19-related initiatives (figure III). Among the public service streams, the highest expenditure was in the digitalization of core government functions, followed by crisis response and preparedness (including for COVID-19), employment, social protection and the rule of law.



⁴ UNDP Digital Strategy, 2022-2025, https://digitalstrategy.undp.org/documents/Digital-Strategy-2022-2025-Full-Documents_ENG_Interactive.pdf.

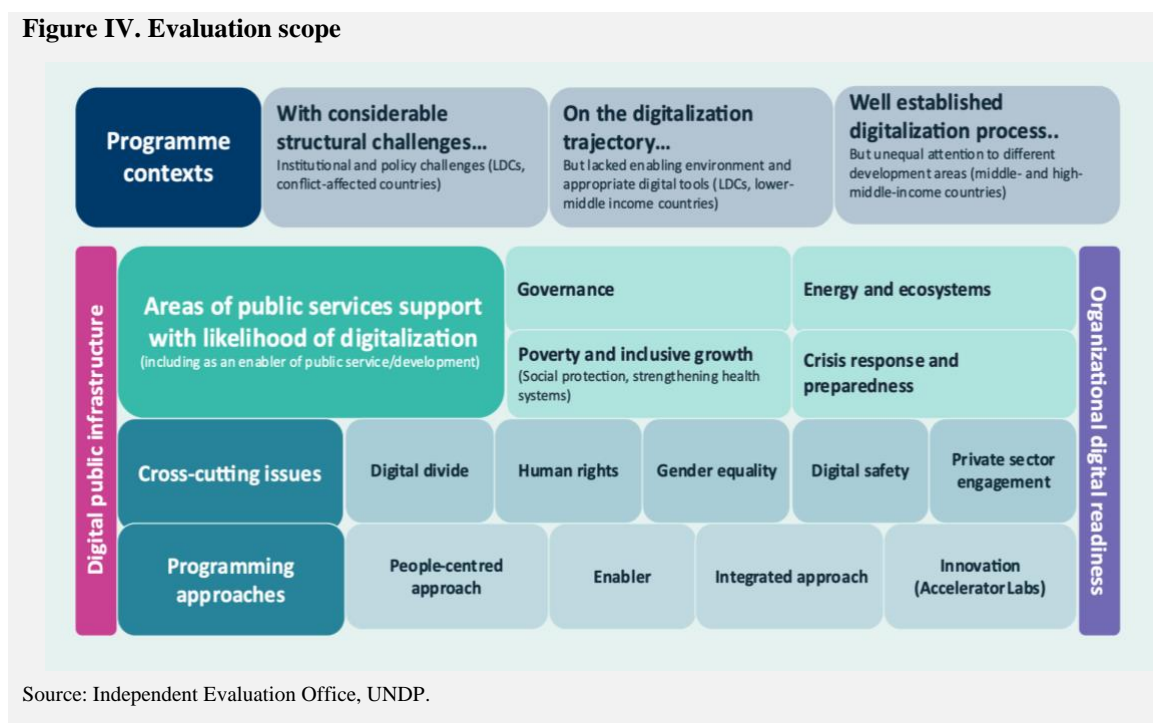
⁵ UNDP Strategic Plan, 2022-2025, [Annex 2: Integrated Results and Resources Framework](#), p. 3-4.

⁶ [UNDP Strategic Plan 2022-2025](#), p. 7 and 16.

IV. About this evaluation

7. The evaluation covers eight programme streams across different thematic areas and cross-cutting issues in the strategic plans presented in figure IV. The evaluation covered all regions of UNDP operations. The evaluation methods used included a detailed portfolio analysis; 15 country case studies and in-depth studies; digital ecosystem analysis in three regions (Africa, Asia and the Pacific, and Latin America and the Caribbean); a benchmarking study of other multilateral organizations;⁷ and semi-structured key informant interviews. Twenty-five countries were selected for desk reviews and interviews with country office management and programme staff. The evaluation comprised a multi-stakeholder consultation process, including a range of development actors at the global, regional and country levels. In total, 410 persons were consulted for the evaluation, of whom 70 per cent were from stakeholder groups other than UNDP.

Figure IV. Evaluation scope



Source: Independent Evaluation Office, UNDP.

V. Key findings

A. Digital public infrastructure

Legal identity

8. UNDP contributed to developing and strengthening digital identity (ID) solutions. This significantly improved access to public services at the country level, notably when using integrated and interoperable strategies and applying hybrid delivery models and awareness campaigns to maximize outreach and access.

9. The UNDP strategy for addressing urgent citizen data requirements combined technological advancements with streamlined institutional processes, aiming for both immediate solutions and enduring sustainability. UNDP also used its different programme streams such as elections and social protection to strengthen legal identity systems and

⁷ African Development Bank, Asian Development Bank, European Union, United Nations Children's Fund (UNICEF), United States Agency for International Development, World Bank.

processes. It used various delivery models, depending on the technology applicable in each country and accounting for accessibility issues. There was improved quality of civil registry services, with digital IDs enhancing accessibility and significantly reducing processing times. Civil registry and certificate services in several countries have been streamlined and strengthened, with many now offering online applications for passports, birth certificates, death records, name changes and marriage services through government e-portals. UNDP support improved civil registry services, as digital IDs enhanced accessibility and reduced processing times.

10. Digitalization and data privacy risks threaten individual rights, civil movements and businesses alike in both developed and developing digital contexts. Hence, digital rights are a concern of individuals as well as civil movements and their ability to bypass digital censorship, mobilize protests and communicate without surveillance.

Digital financial services

11. While UNDP contributed to promoting digital financial practices in development and crisis contexts, it was less consistent in addressing policy and regulatory challenges and linking its support to strategic reforms.

12. UNDP financial and technical support have contributed to greater uptake and engagement in digital financial services, and in some cases strengthened the capacities of partner governments. In over 35 countries, there were examples of how the UNDP programme generated momentum for improved investments in digital financial services. UNDP support for digital payments in conflict-affected contexts, as in Afghanistan, highlights the potential for faster and more effective emergency cash transfers, particularly for women and marginalized communities.

13. Mobile money systems, supported by UNDP, have significantly improved access to retail accounts and payments, including in least developed countries (LDCs). UNDP has facilitated acceptance of mobile money by small and medium-sized enterprises, promoting digital payment adoption. Addressing regulatory challenges, promoting policy reforms and facilitating institutional capacity-building are essential for the continued growth and impact of digital financial services in development and crisis contexts. UNDP support was important in filling immediate needs and gaps, but leveraging such support for longer-term outcomes needed consistent engagement which UNDP could not always ensure.

Strengthening the digital ecosystem

14. UNDP support for digital strategies, legal and policy frameworks, readiness and institutional capacities contributed to the development of digital public infrastructure. Notably, countries undergoing extensive public sector reforms, where UNDP governance expertise was leveraged, have shown more rapid advancements in digital transformation. The pandemic served as a catalyst, accelerating digital transformations with potential enduring effects.

15. UNDP support for digitalization policies and regulations was more evident in the Europe and Commonwealth of Independent States (CIS), Latin America and the Caribbean and Asia-Pacific regions. UNDP contributed to strengthening digital ecosystems with policy processes to support them and support to government e-services included the development of digital strategies, legal frameworks for open data, digital signatures and interoperability between public institutions and service providers. Digital readiness assessments contributed to identifying challenges and gaps for digital transformation and formulating relevant policies.

16. The UNDP contribution to accessing development data, digital platforms and institutional strengthening at the global, regional and local levels and across thematic areas, was relevant for policymaking in general and for achieving the objectives of the 2030 Agenda for Sustainable Development. UNDP contributed to digitalization of development data frameworks, assisting

in monitoring progress under the 2030 Agenda. Building on its extensive environment portfolio, in over 40 countries UNDP supported geospatial data analysis, data consistency and data-informed policymaking related to biodiversity and human development.

B. Digitalization of public administration

Core government functions

17. The consistent contributions of UNDP to the digitalization of core government functions and processes have been crucial. For lasting impacts, such initiatives require persistent engagement and collaboration. Achievements varied across different contexts, with the most extensive outcomes observed in middle-income countries, particularly when interventions were integrated into broader reforms. In other country contexts, UNDP programme processes and outcomes reflect the enduring challenges of bridging the digital divide in public administration.

18. UNDP support to the digitalization of core government functions collectively addresses different elements, tailored for the local context and readiness. UNDP support was driven by country-level initiatives and evolved incrementally, well before digital transformation was addressed in the UNDP strategic plans. Country-level customization and needs meant that the UNDP approach varied. Interventions spanned support for strategy frameworks, digital transformation and interoperability. In countries where other development partners were better equipped to offer such assistance, UNDP focused on sectoral strategies and related digital development. UNDP also had to combine technical assistance with support for basic infrastructure to advance the digitalization process, and this proved to be a key enabler for services. Notable progress has been made in the health, education and social protection sectors.

19. The outcomes of UNDP initiatives varied depending on the level of integration with broader reforms. In Europe and the CIS, UNDP supported the development and implementation of national e-governance strategies, legislative reforms and open data policies to enhance transparency, accountability and access to information. UNDP involvement in these countries highlighted the importance of sustained government commitment to digital reforms. In the Asia-Pacific region, UNDP contributed to improved digital strategies, making progress by introducing numerous e-services accessible through various channels, including a dedicated portal and mobile applications. The project on information and management systems for democratic governance has accelerated the digital transformation of public services throughout Latin America by supporting reforms in various government institutions. Overall, however, the digital divide has widened, particularly in Africa and the Pacific, highlighting the need for further commitment and support.

20. Notwithstanding UNDP contributions, the overall uptake of e-services was often low, due in part to government-centric service designs and challenges in interoperability, intergovernmental discipline and readiness. The limited involvement of local governments, civil society organizations and the private sector also impacted service quality, public trust and awareness and a deepening digital divide. Key to facilitating more inclusive public services are comprehensive monitoring frameworks with regular feedback on e-service uptake, but such frameworks tend to be a lesser priority. Data privacy requires more attention in digital support and a better balance between data sharing and data protection, also a factor in the uptake of digital public services.

Elections

21. UNDP successfully scaled up its support for digital electoral process management, with digital voter registration and authentication as key elements of this support. The use of biometric technology and interoperability between electoral and civil registries eliminated dual voting, underpinning more credible and efficient elections and the democratic transition of elected governments.

22. UNDP has successfully expanded its support for digitalizing electoral systems in several countries, focusing on digital voter registration and authentication. Notwithstanding the political and programme implementation complexities in some countries, UNDP effectively linked civil registry services with biometric voter registration, ensuring interoperability. Biometric technology and interoperability between electoral and civil registries were pivotal in eliminating dual voting and ensuring more credible and efficient elections, thus facilitating democratic transitions of elected governments.

23. One key aspect of UNDP support is digital voter registration, which is integrated with civil registry systems to enhance the credibility of the electoral process. Countries from various regions have benefited from UNDP assistance in implementing digital voter registration, bolstering the integrity of the elections. In sub-Saharan Africa, digital efforts and social media have been effective tools for voter education, especially among young people. UNDP efforts in digitalizing electoral systems hold significant potential for improving the integrity and inclusivity of elections worldwide, but ongoing support, evaluation and adaptability are essential for their long-term success.

24. Overall, UNDP programmes recognize that digital interventions are not necessarily impartial and therefore must consider the readiness and autonomy of electronic ballot markers. The debate on the depth of digital transformation in elections persists, and experiences with complete vote-casting automation have yielded varied results.

Rule of law

25. UNDP support for digital transformation within the rule of law mainly targeted court case management, case tracking and the efficiency and transparency of court systems. Most sustainable outcomes were achieved when the support was longer-term and embedded in wider justice reform.

26. This support contributed to more efficient case handling, increased legal awareness and improved access to legal assistance in various countries. UNDP digitalization efforts have had a positive impact on human rights oversight by facilitating the tracking of human rights-related complaints and the implementation of human rights recommendations in several countries. The COVID-19 pandemic triggered increased demand for digital support to keep courts open and reduce backlogs. Given the urgency, support was often rendered without due attention to regulatory amendments and safeguards for data privacy and safety of litigants, especially with the introduction of virtual courts.

27. UNDP support aligns with legal reforms driven by European Union accession processes, enhancing the sustainability of this support in the Europe and CIS region. In less developed and post-conflict contexts, the results have been mixed. In some cases, limited scope, poor absorption capacity, lack of partnerships and the impact of COVID-19 have constrained UNDP efforts to implement digital court systems effectively. There is a growing demand for e-justice support, and recent UNDP initiatives, such as the Justice Futures CoLab and online e-justice tools, are steps in the right direction. UNDP needs to adopt a more problem-driven and people-centred approach to its e-justice efforts. Its success will depend on its ability to secure financing for the justice sector and forge partnerships for a more coherent response.

E-health and telemedicine

28. UNDP engagement in e-health and telemedicine highlights the potential of long-distance referrals in improving health services in both emergency and normal situations. The effectiveness of these initiatives depended on the reliability of the e-health information systems and the robustness of the digital architecture. UNDP is well positioned to engage in sector digitalization given its portfolio under the Global Fund to Fight AIDS, Tuberculosis and Malaria and its support to health emergency response.

29. UNDP digitalization efforts in health care have been critical in responding to health emergencies such as the outbreaks of Ebola and COVID-19. UNDP has supported various programmes related to e-health policies, strengthening digital immunization systems, improving health records, designing telemedicine systems and implementing telemedicine services at the local level. Telemedicine initiatives supported by UNDP have been instrumental in improving access to health care for individuals in remote areas and those lacking adequate health services. UNDP has achieved significant success in digitalizing supply chains, thereby improving immunization services. A notable example is the Electronic Vaccine Intelligence Network (eVIN) in India which is now being replicated in Indonesia and Malawi. Its Global Fund portfolio and its experience in health emergency response position UNDP well to engage in this sector. UNDP has not fully leveraged public-private collaborations for sustainable e-health solutions.

E-trade and e-commerce

30. UNDP has supported the advancement of e-trade and e-commerce initiatives, enabling micro and small businesses to broaden their customer reach and integrate into the digital commerce realm. In development contexts where e-trade was nascent, UNDP support for the digital trade capacities of micro, small and medium-sized enterprises (MSMEs) has been important in piloting various initiatives under contextually challenging circumstances. Initiatives that were immediate responses to COVID-19 have yet to achieve scalability in the absence of subsequent investments and robust institutional backing. Sustained engagement is essential to enhance e-trade capabilities and establish crucial last-mile market connections.

31. UNDP e-trade programmes aimed to address immediate needs for service delivery, focusing on trading platforms and related capacities. This approach intended to ensure that micro-enterprises could sustain and enhance their business profitability. Significantly, a salient component of UNDP assistance was the concentration on fostering e-trade services at the grass-roots level, bridging micro-enterprises and producers with domestic, regional and global marketplaces.

32. While UNDP was more successful in piloting initiatives and ideas that have the potential for scaling, there were no consistent efforts to ensure that lessons from the pilots were linked to other ongoing efforts or implementing sector-specific strategies. A persistent issue for UNDP initiatives is the limited resources for incubation and e-trade initiatives. As a result, the UNDP approach to enterprise and e-trade development achieved limited success in developing models that could streamline multiple, concurrent e-trade and e-commerce efforts often seen in many countries.

33. In LDCs and conflict-affected countries, international support for initiatives for young people is fragmented, reducing medium-term focus and the promotion of programme models for young people. While several initiatives by United Nations organizations, donors and other agencies provide short-term youth employment initiatives, each entity is reaching a small number of beneficiaries. Initiatives such as YouthConnekt or Youth Co:Lab have yet to focus strategically on e-commerce and e-trade solutions and had varied outcomes in different countries.

34. Integration of digital financial services is critical for the functioning of the e-commerce and e-trade platforms. While UNDP considers fintech an essential element in advancing financial inclusion and economic resilience, it has not yet strategically engaged in bridging fintech and enterprise development. In LDCs and lower-middle-income countries, the development of MSMEs calls for streamlined policies, mechanisms and institutional arrangements that facilitate fintech expansion.

Social protection

35. UNDP support for digital registries and data platforms strengthened social protection delivery. Digitalizing the delivery and monitoring of payment systems has contributed to improved transparency and rapid and efficient social protection services.

36. Predominantly in middle-income countries, the data systems and digital platforms have contributed to enhancing the efficiency, transparency and reach of social protection measures and notably have expedited beneficiary targeting. UNDP was cognizant of the urgent needs of the COVID-19 response and augmented its support with digital tools and knowledge products. A crucial outcome of this contribution was strengthened social protection processes and digitalization of beneficiary data, ensuring its accuracy and up-to-date records. The UNDP contribution was more notable in strengthening civil registries and citizens' data including single registries and identification of beneficiaries through the development and implementation of digital identity and e-registration mechanisms. By leveraging digital technology, governments and stakeholders can closely monitor the distribution of benefits, identify gaps or inefficiencies and make data-driven decisions to enhance programme effectiveness. The interoperability of social protection and other citizen data systems plays a vital role in promoting effective social protection delivery. UNDP support to digital social registries and efforts to enhance interoperability among various entities provided valuable lessons for future engagement. Challenges were more severe in LDCs, which lacked financing, as well as enabling digital ecosystems, necessitating a comprehensive approach and solutions to address bottlenecks in using digital systems and sustain progress.

C. Reducing digital disparities and vulnerabilities

37. UNDP corporate strategies and country programmes paid attention to the inclusive digitalization of public services. The UNDP contribution to digital public infrastructure has positive outcomes for inclusiveness and access to digitalized public services. Although the programmes at the country level pay attention to issues of geographical, socioeconomic and gender vulnerabilities, the enormity of the contextual challenges meant that contributions in enabling access to public services to vulnerable populations remain uneven. The uptake of digital public services is constrained by significant gaps in the digital public infrastructure. Data security issues were not addressed by UNDP in its support.

38. UNDP contributed positively to the development of digital public infrastructure, which enhances inclusiveness and access to digital services. Interventions aimed at reducing digital disparities have had a positive impact on various groups in danger of being left behind, providing essential benefits such as family assistance, legal identity and improved health services.

39. The challenges posed by geographical, socioeconomic and gender vulnerabilities are enormous, necessitating inter-agency approaches. Gaps in digital public infrastructure remain a significant constraint, and data privacy issues have not received adequate attention. In some countries, low trust in and accountability of governmental structures have hindered the success of digitalization initiatives. Even in digitally advanced countries, data privacy concerns have not received adequate attention, leading to privacy and data protection issues that deter some groups from using digital services. The inclusive approach of UNDP, though well-conceptualized, suffers from weak operationalization and insufficient mechanisms for monitoring the digital needs of vulnerable groups.

D. Strategic positioning

40. To strengthen the capacity of the digital ecosystem, UNDP has invested in several initiatives at global and country levels. Such efforts are important in ensuring that digitalization and innovation become enablers in improving public services. Strategic

preparedness at the corporate level enabled UNDP to swiftly address pandemic-related needs, ensuring the continuity of public services. A critical component, enabling development financing for enhancing digital public infrastructure, and financing for sector initiatives, has been overlooked in UNDP support, particularly in LDCs.

41. UNDP strategic positioning, both at the global and country levels, has played a crucial role in advancing digitalization and innovation, with a focus on digital public infrastructure to improve public services and accelerate progress towards the Sustainable Development Goals. The UNDP corporate digital policy ensured commitment to accelerating development outcomes and strengthening its internal mechanisms and processes, in putting UNDP on the path of being a digitally agile organization. In response to the pandemic, over 90 countries received support from UNDP, with approximately 300 digitally enabled governance assessments and processes contributing to the continued functioning of governments during the pandemic.

42. The Chief Digital Office and specialized teams at regional hubs have actively supported assessments and initiatives at the country level, fostering momentum in advancing digital transformation. These measures have been marked by positive initiatives and promising directions. There are opportunities for knowledge exchange between countries regarding successful digital public infrastructure and public service solutions. South-South cooperation in digital development is emerging as a valuable avenue, with several successful examples of knowledge-sharing.

43. The UNDP comparative advantage lies in its extensive programme portfolio, offering significant opportunities for digitalization, which remains untapped in some areas. UNDP mechanisms and tools for delivering tailored digital solutions need further development to address the specific needs of country offices, particularly in least developed and lower-middle-income countries. This includes specific strategies to enable sector development financing. Technology-based solutions in Africa, for instance, require a more comprehensive and strategic approach to enable scaling and transformative outcomes. There is a need for a more robust business model to promote accelerators, fully utilize the potential of the Accelerator Labs and strategically incorporate the acceleration agenda into their activities.

VI. Conclusions

Conclusion 1. UNDP has played a crucial role in enhancing digital public infrastructure which is critical for digital transformation across public services. UNDP support in establishing and improving critical databases and registries, advancing digital identification systems, enhancing system interoperability and promoting digital financial services has played a pivotal role in helping countries navigate key phases of their digital transformation journey. Strategic preparedness at the corporate level enabled UNDP to respond swiftly to pandemic-related requirements, ensuring the uninterrupted delivery of public services.

44. Over two decades, UNDP support for e-services and digitalization at the country level has been significant. Since the last strategic plan period, there has been a marked increase in support for the digitalization of public services. UNDP is recognized as a leading organization in digital public infrastructure and within the United Nations system has carved out a crucial niche in driving the digital transformation agenda at the country level. The COVID-19 pandemic further underscored the importance of the UNDP role in strengthening digital public infrastructure, as its support ensured uninterrupted services and delivered social protection benefits to vulnerable groups. UNDP has contributed to important change processes in the digital transformation of public services. Its consistent assistance for government digitalization initiatives facilitated the development of online public services in several countries. UNDP supported over 90 countries in deploying critical public service technologies with approximately 300 digitally enabled governance-readiness assessments, processes and citizen interface mechanisms to contribute to the continuation of government functioning in an emergency.

45. UNDP has improved the quality of civil registry services through multiple delivery models and context-specific technologies. Beyond dedicated support for streamlining legal identity systems, UNDP has leveraged various areas like elections and social protection to further strengthen legal identity. Most of these contributions have been iterative, paving the way for interoperability and sustainable data processes. Enhancing legal identity has played a pivotal role in driving the digital evolution of social protection systems. This has paved the way for easier access to services, more efficient distribution of social safety nets and improved coordination between governmental bodies. Longer-term commitment from national entities is imperative to address the range of technical, organizational and capacity challenges. A sharper emphasis on inclusivity, system interoperability and unified data infrastructure remains paramount for fostering strong and sustainable social protection mechanisms. At the same time, social protection can also be a platform for a stronger promotion of the (digital) legal identity agenda.

46. UNDP has consistently advocated both a whole-of-government approach and a whole-of-society approach in governance. Successful sector practices such as the eVIN programme in India (now replicated in nine countries) and government-wide efforts such as a2i in Bangladesh (several practices replicated in other countries), reinforce that government institutions should work across ministerial and department boundaries and at different levels of government, supported by a policy framework for transformational governance and public services.

47. Although UNDP made notable contributions to e-trade and digital financial services at the national level, its most pronounced successes were on a micro scale, particularly in aiding micro and small businesses to enhance their presence in the digital commerce arena and e-trade platforms. In rural and crisis-affected areas, recovery of local artisans and producers—many of whom are women and young people—created opportunities for their integration into the digital marketplace and allowed them to tap into larger markets. In areas where e-trade was still in its infancy, UNDP interventions to strengthen the digital capabilities of MSMEs have been noteworthy. Consistent engagement is vital to enhance e-trade, enable financing and establish essential market capacities. UNDP promotes digital financial services through payment systems, adoption of mobile money solutions and awareness campaigns. However, integrating them with the growth of micro and small businesses and local e-commerce was challenging for UNDP as this needed longer-term engagement. There is scope for UNDP to promote and strengthen fintech for inclusive financing for enterprise development.

Conclusion 2. UNDP contributed to the digital transformation of the health sector in both developmental and crisis contexts, demonstrating the transformative outcomes in digitalizing health services.

48. Promising UNDP initiatives in the health sector underscore the importance of comprehensive, sector-specific digital initiatives for sustainably improving institutional structures and the effectiveness of public services. Digitalization efforts enhanced public services when combined with a comprehensive whole-of-government approach. The success of projects like eVIN in India, which ensured equitable vaccine distribution across diverse populations and reached remote and marginalized areas, was due to a combination of factors: government leadership; contextually tailored responses to digital ecosystem challenges; and user-centric considerations such as skill development and the ease of use of the application. Similarly promising telemedicine initiatives underscore the importance of engagement of different levels of government.

49. The eVIN has been recognized globally as an effective and scalable solution for vaccine supply chain management, reduction in stockouts and better vaccine coverage. The real-time data visibility and analytics provided by eVIN enable evidence-based decision-making, enhance accountability and contribute to strengthening the effectiveness of immunization programmes. It showcases the potential of digital technologies for improving health-care systems in complex development contexts, ensuring the availability and accessibility of life-saving vaccines to communities in need. UNDP has supported the implementation of similar electronic immunization supply chain systems in other countries as part of South-South and triangular cooperation.

Conclusion 3. In recent years, with the emergence of interoperability as a challenge in digital transformation, it has become increasingly crucial for UNDP to address this issue proactively and comprehensively in various digital development contexts.

50. UNDP could facilitate positive outcomes in middle-income countries characterized by robust governance frameworks and capacities, especially when its interventions are seamlessly integrated into more extensive initiatives for the transformation of digital ecosystems. There is scope for UNDP to consolidate its support to registries and digital IDs to address interoperability challenges in a phased and sustained manner in different digital maturity contexts.

51. In the immediate future, establishing policies and implementing processes for information-sharing and synchronization will alleviate certain obstacles. However, long-term success depends on enhancing transparency and emphasizing the significance of civil registers in the digitalization of services. Sustainability and scalability challenges persist, primarily in LDCs and fragile contexts, owing to limited development funding and technical expertise. UNDP is well positioned to strengthen global collaborations, a critical step in bridging these gaps. Its role in the United Nations Legal Identity Agenda Task Force has put the organization in a leadership position in the field of legal identity. There are untapped opportunities to leverage its leadership to strengthen financial and technical offers to support programme countries in civil registries and comprehensive and interoperable legal identity systems.

Conclusion 4. The limited UNDP response to the nascent digital ecosystems and markets in least developed and lower middle-income countries has limited its contributions. The LDCs, grappling with resource constraints, regulatory bottlenecks and limited institutional readiness, are not able to leverage trade concessions that are essential for their growth. Striking an optimal balance between digital and non-digital dimensions (institutional and capacity elements) is crucial for the sustainability and scaling-up of digital solutions in LDCs.

52. The whole-of-government approach has not advanced significantly in countries that are in the early stages of digital development, notably the least developed and lower-middle-income countries. However, some of the successes in such contexts, particularly in the areas of health, social protection and electoral systems, can be attributed to robust global partnerships and the promising acceleration provided by digital public goods solutions. UNDP digitalization support aimed to identify and promote the ideal combination of institutional, human and technological elements tailored to the development context, but numerous initiatives encountered obstacles and stalled at the demonstration stage. The incremental outcomes in Africa highlight the ongoing challenge of bridging the digital divide, limited connectivity and weak policy frameworks.

53. The pandemic acted as a catalyst, accelerating digitalization efforts, with a surge in digital solution promotions in LDCs. Interim digital strategies no doubt provided openings for furthering digitalization, and opportunities for optimizing public sector efficiency and value-driven applications for inclusive growth. This was not, however, enough to enhance public services in the absence of long-term efforts to strengthen governance capacities and sustain reform momentum. Several digital ventures, backed by various agencies in overlapping domains, lacked scope, collaboration and anchoring in institutional transformation processes. UNDP efforts faced similar challenges and were hampered by insufficient investments and partnerships. UNDP responsiveness to the immediate country-level needs meant that digitalization efforts did not adequately prioritize regulatory and policy frameworks or enable institutional readiness. For optimal outcomes, it is crucial that UNDP assistance be integrated into wider public sector reforms and structured development partnerships to support digitalization efforts in the LDCs.

Conclusion 5. The UNDP global strategy effectively combines innovation, digitalization and development financing to expedite development outcomes. A more balanced emphasis on the interconnections between these three facets could further enhance the effectiveness of the UNDP digitalization approach. Enabling development financing is critical for

comprehensively assisting countries in the initial phases of their digital ecosystem transformation.

54. The harmonious convergence of innovation, digitalization and development financing is crucial for successfully advancing the digital transformation agenda, and each of these areas warrants specialized focus. While UNDP has laid the foundation for support frameworks in innovation, digitalization and development financing at headquarters, there is still room for enhancing their seamless integration at the country level. The organization's comprehensive mechanisms and tools for delivering customized digital solutions have the potential for further refinement to better align with the unique requirements of country offices. UNDP global initiatives, while important, could benefit from a more seamless integration with the specific demands at country level, ensuring a more holistic approach to digital transformation.

55. While there is a promising direction regarding acceleration and the pursuit of development accelerators, there is scope to define region-specific accelerators to enhance structured engagement. The Accelerator Lab conceptualization on innovation represents a valuable resource that can significantly elevate UNDP support for enhancing digital transformations in public service delivery. To fully harness this potential, a more robust business model is needed to effectively promote innovative methods. While there are notable instances showcasing the promise of greater involvement in country programming, many of the Accelerator Lab activities currently remain small-scale and isolated, lacking robust scaling frameworks. To make the most of the resources allocated to the labs, it is vital to strategically incorporate the acceleration agenda into their activities.

56. There is untapped potential for coordinated digital strategies at the country level, a need accentuated by the COVID-19 response. Programmatic partnerships were underutilized when it came to advancing the achieved outcomes, limiting the potential for scalability, especially in situations where government funding was limited. The impact of UNDP on digital transformation was hindered by insufficient engagement with other agencies to consolidate achievements and for stronger institutional and policy support for scaling interventions. United Nations organizations and the World Bank have been at the forefront of digitalization development efforts at the country level, but synergies and programmatic partnerships are always not optimal. Successful partnerships and synergies, notably in the domain of legal identity in countries such as Malawi and Mozambique with the World Bank, demonstrate the critical importance of collaborations for sustainable outcomes. There is scope for improving the knowledge transfer of successful practices and approaches that are undermining some of the important outcomes achieved.

57. Progress in private sector engagement and development has not yet reached the desired level and pace, limiting the UNDP contribution to catalysing digital transformation in enterprise development and fostering connections to digital financing. During the challenging period of the COVID-19 pandemic, it became evident that sector-specific solutions and robust digital public infrastructure played an effective role in delivering services, both from the public and private sectors. Many UNDP initiatives in digitalization for economic development and governance relied significantly on private sector engagement and development. UNDP has successfully collaborated with the private sector at the project level, particularly in activities related to e-commerce, digital financial solutions and select technical partnerships in governance. However, there is room for improvement in facilitating private sector development and creating regulatory frameworks that can empower programme countries to engage with the private sector and overcome constraints related to digitalization of public infrastructure.

Conclusion 6. Strengthening digital capabilities is vital at both the national and local levels. With disparities being more pronounced at the local level, lack of consistent engagement in strengthening local government capacities has impacted the full potential of UNDP initiatives in supporting last-mile digital solutions.

58. UNDP programmes aimed to extend digitalization benefits to a wider population, especially those in remote or marginalized regions. Despite a local and community-centric approach to interventions, the programmes often missed a solid anchor in local government

structures. Even in upper-middle-income countries with advanced digital development, where parts of the government may have progressed on digitalization, there was limited capacity at the subnational level. This disparity in capacities posed hurdles in devising and executing digital strategies for improving public service and economic development. Successful examples in the health sector (eVIN and Co-WIN in India, SMILE in Indonesia, and telemedicine in Viet Nam) strongly point to the potential of local government thrust, where initiatives link across different levels of government with a strategic anchoring of digital services in local government programmes. Empowering local governments and addressing capacity needs would be crucial for achieving more equitable and sustainable digitalization outcomes relevant for citizens.

Conclusion 7. With its global presence, UNDP is well positioned and well recognized as an enabler of South-South and triangular cooperation. UNDP has facilitated the South-South exchange of digital public infrastructure and sector solutions, which demonstrated transformative outcomes in some countries.

59. There is a marked demand for facilitating South-South exchanges to promote adaptable digital public service prototypes across varying developmental and digital maturity contexts. UNDP supported the One Future Alliance, a G20 initiative, for sharing digital solutions to improve governance and economic development with low and middle-income countries. The One Future Alliance framework allows support to digital and non-digital components, including governance, access and inclusion and human-centric digital public infrastructure principles. This and UNDP platforms such as the Digital X, a repository of vetted digital solutions, provide opportunities for more structured engagement as a connector and facilitator of digital public service solutions. In high and upper-middle-income countries, there remains an opportunity for UNDP to facilitate knowledge exchange and learning, pivotal for adoption across or within federal systems. UNDP has yet to fully harness these opportunities, often hindered by resource constraints. The success of initiatives such as Digital X hinges on facilitation and securing development financing for the uptake of these solutions.

Conclusion 8. UNDP programmes have consistently made efforts to address geographical, social and gender-inclusion challenges in the digitalization of public services. Although programmes addressed challenges in rural areas and sections of the population at risk of being left behind, the offerings were not always comprehensive enough to produce the desired outcomes.

60. The most significant UNDP contribution to inclusive structures and systems was evident in the domains of legal identity and data interoperability in middle-income countries. These efforts particularly benefited sections of the population that were vulnerable to being overlooked when accessing social protection benefits. In conflict-affected countries like Afghanistan, UNDP support for digital finance services highlights the potential of digital tools to achieve broader and more efficient outreach, even in less congenial policy and institutional environments. The grass-roots initiatives for economic development, while yielding outcomes at the micro level, had limitations in contributing to the overarching policy structures that would enhance inclusive economic growth.

61. Efforts to increase the access and use of digital public services by women in rural and remote areas still require considerable work. A larger issue is the weak operationalization of gender-equality policy frameworks, a significant rural/urban divide, which also impacted access to public services in general. The uptake of digital services, especially by women in remote areas, needed additional investments which not always made.

62. At the country level, a lack of sufficient mechanisms to track actual adoption of e-services has overall hindered digitalization efforts. Consequently, it is difficult to gauge the magnitude of the problem and address constraints of low engagement and use of e-services. Countries, including those with developed digital ecosystems, struggle with persisting inequalities and difficulties in access to online self-servicing, affecting significant segments of the population. Such challenges become even more pronounced in more unstable development contexts and fragmented institutional structures and digital ecosystems, which in turn adversely affect vulnerable segments of the population. Given its digitalization engagement, there is scope for

UNDP to strengthen digital government measurement frameworks to specifically assess e-service uptake and use.

Conclusion 9. Addressing data security and digital privacy as fundamental rights issues is a challenge faced by many countries. This is an area where UNDP engagement is in nascent stages.

63. The transformative potential of digitalization notwithstanding, without specific precautionary measures there are risks to an individual's autonomy, privacy and rights. A challenge in most countries is the data security and data rights which received limited attention in the efforts to develop digital public infrastructure and digitalization of public services. Insufficient focus on data security and safeguarding the rights of individuals when sharing their personal information is an area that UNDP has yet to address adequately. The challenges of limited funding and the increased demand for digitalization support during the COVID-19 pandemic have somewhat hindered the ability to prioritize ongoing concerns related to data privacy, security and bridging the digital divide.

VII. Recommendations

Recommendation 1. Building on its ongoing work in strengthening digital public infrastructure, UNDP should advance user-focused design and streamlined digital offerings for key digitalization drivers such as digital legal identity, digital financial services and data interoperability.

64. Successful examples of UNDP support to digitalization have shown that a whole-of-government approach was one of the factors. There should be more concrete measures to apply this at the country level to promote a people-centred digital public infrastructure.

65. Underpinning access for all to digital public services, UNDP should support digital legal identity and interoperability through data standardization, joint exchange platforms, policy and regulatory frameworks and institutional readiness. Emphasizing user-centric design thinking and robust scaling of pilots and innovations, UNDP should support efforts to strengthen co-created service designs, end-to-end public service streamlining and hybrid service channels to enhance access and uptake.

66. Access to affordable financial services is critical for enterprise development and livelihood promotion. UNDP is promoting digital financial services, both indirectly through digital identification initiatives and directly through payment systems, mobile money and awareness campaigns. However, there is a growing demand for more extensive involvement in specific areas, particularly in fostering fintech development and creating an enabling environment. It is crucial for UNDP to explore systematic engagement in supporting innovative fintech startups, thereby facilitating inclusive financing for enterprise development. UNDP should develop business models that would address the constraints in emerging markets.

67. Harnessing its leadership in global digital public goods, UNDP should proactively promote involvement of non-State entities and multi-stakeholder collaborations in enabling more comprehensive solutions in digital public infrastructure.

68. Partnerships are critical for enabling transformative change processes. UNDP should prioritize programmatic partnerships with United Nations agencies and international financial institutions and take specific measures to bridge the disconnect between the global-level collaborations and country-level reality of fragmented interventions by different agencies.

Recommendation 2. UNDP has successfully supported digitalization initiatives in the health and social protection sectors. Given the critical role of digitalization in enhancing the efficiency of public services, UNDP should strategically and consistently engage with comprehensive programme options to enable sector-wide holistic digital transformation. UNDP should prioritize digitalization efforts at the local government level, to ensure the last-mile digitalization of public services.

69. UNDP should leverage its governance programme to promote the digitalization of public services in key governance areas. UNDP must ensure that digital transformation as an enabler is a key consideration in all governance programming. This entails that country offices actively engage with digital advocates to mainstream digital transformation in national strategies.

70. As providers of public services and interlocutors with central governments and the citizens, local governments have a key role in digital transformation of public services. UNDP should engage more actively with local governments in strengthening their capacities. This can include upstream support for the participation of local governments in digital reforms and oversight, and downstream support for digital transformation of local government administration, transition to online service provision and local governments' engagement with citizens and local businesses in this process.

Recommendation 3. UNDP has put significant emphasis in its current and previous corporate frameworks to strengthen development accelerators and enablers through digitalization, innovation and development financing with positive dividends. While continuing and consolidating such an emphasis, UNDP should strengthen its efforts to enable development financing for sectoral efforts and digital transformation at the country level.

71. Development financing is crucial for countries to pursue digital transformation for enhanced public services and inclusive development. UNDP should put in place specific measures, processes and targets to enable development financing at the country level, and this includes financing for digital public infrastructure. UNDP should assign adequate resources to country offices to facilitate development financing. UNDP should take specific measures to strengthen the capacities of the country offices to widen private sector engagement in institutional strengthening for digital governments.

72. UNDP should consider defining region-specific acceleration priorities and how Accelerator Labs can be leveraged for promoting this. UNDP should assess the viability of the labs and the conduciveness of alternative models, such as fewer, but better resourced labs, strategically located in countries that are considered regional leaders in innovation and digitalization, and with a mandate to cover other countries working with regional hubs.

Recommendation 4. In the LDCs, UNDP should adopt a targeted approach to strengthening digital public infrastructure and regulatory frameworks for improving public services and economic development.

73. UNDP should prioritize digital public infrastructure as a key area in digitalization of the LDCs. This should entail well-conceptualized support for digital legal identity and digital financial services, backed by collaborative engagement in strengthening regulatory frameworks. UNDP should identify policy and institutional areas for consistent engagement and support in LDCs, which would result in enhancing the use of trade concessions and foster investments.

Recommendation 5. UNDP is well positioned to facilitate South-South and triangular cooperation for digital transformation and should strategically engage in enabling this.

74. South-South and triangular cooperation remain pivotal in driving digital public infrastructure, replicating public goods solutions, nurturing the proliferation of digital best practices and skills and optimizing the provision of digital services. Several government partners of UNDP want to share the practices that worked in their countries and are open to cooperating with other countries to gain insights from their successful initiatives. UNDP should use South-South cooperation to accelerate building capacity, implementing successful practices, enabling financing and championing open access to data. UNDP should assign resources for country offices to pursue South-South cooperation.

75. Digital public goods like Digital X are essential for exchange of workable solutions and linking it with South-South and triangular cooperation will improve facilitation of adaptation and technical engagement.

Recommendation 6. UNDP should support data privacy and legal identity management at the country level. UNDP programmes should incorporate the rights dimension in its legal identity support.

76. Data privacy concerns brought by digitalization should be addressed beyond the standard data security safeguards. The recently launched governance framework for digital ID is an important first step in this direction. UNDP should promote the guidance and should support data privacy within its interventions (related to civil registries and other legal identity databases), as well as part of its support to digital public infrastructure. Drawing on its programmes, UNDP should develop solutions that address rights dimensions in data privacy.

Recommendation 7. UNDP should strengthen its support to bridging the digital gender divide at the policy level. UNDP should clarify resources that will be made available for implementing corporate gender strategies for an inclusive digitalization of public services.

77. At the corporate and country levels, UNDP needs to articulate the execution of its gender strategies to enhance more gender-equitable digitalization outcomes. It is essential for UNDP to ensure that sufficient resources are dedicated to the implementation of gender strategies.

78. UNDP should collaborate with other United Nations organizations to offer policy support at the country level in addressing structural gender issues that influence women's access to digital public services and funding.

Recommendation 8. At both the country and global levels, UNDP should advocate to strengthen digital government measurement frameworks to assess e-service uptake and use. This data is essential to inform government efforts for inclusive services and accelerating last-mile efforts.

79. Although it is widely recognized that more attention is needed to monitor digital reforms, currently e-governance benchmarks do not reflect this. To strengthen global attention to inclusive digital reforms, UNDP should advocate for the amendment of the United Nations E-Governance Development Index with benchmark criteria for disaggregated national reform monitoring parameters, including on e-service uptake. This will promote more informed user-centric interventions to address last-mile challenges in public services for achieving the 2030 Agenda.

80. A greater focus on the use and effects of digitalization is vital for comprehensive digital reforms and for reaching the most vulnerable populations and remote areas. Regular tracking of e-service usage can shape the direction of government initiatives and those of development organizations, addressing the primary challenges of design and deployment strategies. Without this insight, digital advancements might intensify disparities in service accessibility.
