UNITED NATIONS DEVELOPMENT PROGRAMME
Office of Audit and Investigations

AUDIT

OF

DECENTRALIZED DIGITAL INITIATIVES

IN

UNDP

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Report on the Audit of Decentralized Digital Initiatives in UNDP
Executive Summary

The UNDP Office of Audit and Investigations (OAI) conducted an audit of decentralized digital initiatives in UNDP from 16 November to 18 December 2020. The audit aimed to assess the adequacy and effectiveness of the governance, risk management and control processes relating to the following areas:

(a) Governance
(b) Impact on corporate processes regarding information technology development

The audit covered activities regarding decentralized digital initiatives conducted in the period 1 January 2019 to 31 October 2020. This was the first audit regarding decentralized digital initiatives in UNDP.

The audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing*. Due to the COVID-19 pandemic, the audit was conducted remotely. Scope limitations due to the nature of the remote audit related to the following activities:

(a) Meetings with all parties involved in the audit were done virtually, limiting the audit team's observation of auditees' interaction and dynamics.

Overall audit rating

OAI assessed the Office's performance as **fully satisfactory**, which means "The assessed governance arrangements, risk management practices and controls were adequately established and functioning well. Issues identified by the audit, if any, are unlikely to affect the achievement of the objectives of the audited entity/area."

Key recommendations: Total = **3**, high priority = **0**

The audit did not result in any high (critical) priority recommendations. There are three medium (important) priority recommendations, which means "Action is required to ensure that UNDP is not exposed to risks. Failure to take action could result in negative consequences for UNDP." These recommendations include actions to address: the suboptimal process used to assess/support/promote local developed applications to corporate level and the suboptimal use of capacities existing outside of Headquarter units regarding development / use of applications that (can) solve business problems and/or address local issues.

The three recommendations aim to ensure the achievement of the organization's strategic objectives.

Management comments and action plan

The Chief Digital Officer and the Chief Information Officer accepted all three recommendations and are in the process of implementing them. Comments and/or additional information provided have been incorporated in the report, where appropriate.

Low risk issues (not included in this report) have been discussed directly with management and actions have been initiated to address them.

Helge S. Osttveiten
Director
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I. About decentralized digital initiatives

During the period under review UNDP executed two Headquarter initiated and managed decentralized digital initiatives. The first initiative, Digital Lighthouse Initiative (DLI), started in early 2019 and the second one, Digital Sprint, was launched in February 2020. A third initiative, Digital X Scale Accelerator, was launched after the audit, in December 2020, but before issuance of the audit report.

Although all three had (slightly) different objectives, the main objective was to support implementation of UNDP's digital strategy; specifically, to empower and inspire UNDP and increase digital capabilities and capacities.

The DLI's were meant to be short-term, well defined, and measurable programmes that could serve as role models ("lighthouses") for similar initiatives and bring UNDP's digital strategy to life. Each DLI would have a timeframe of six months and be funded with a maximum of $500,000. The objective was to support the digital strategy by providing the organization with new assets, capabilities, and learning opportunities on how to achieve realistic migration to next-generation technologies and ways of working. Ultimately, in June 2019, 7 of the more than 40 proposals submitted by the various Central and Regional Bureaux had been approved as DLI's. At the time of the audit, six of the seven DLI's were in various stages of finalization and all expected to be finished by the end of 2020, early 2021 the latest. The DLI that had not been completed as intended was the Digital Talent Framework proposed by the Regional Bureau for Asia and the Pacific (RBAP), which was put on hold. Due to the COVID-19 pandemic, RBAP faced difficulties implementing the proposed activities as well, and decided to focus its resources on pandemic-related areas instead of on the DLI as originally foreseen.

Digital Sprint, built on the Lighthouse Initiatives launched in 2019, was meant to support the next cohort of digital projects, which would have the potential to scale to global solutions. These 'digital sprints' were meant to tackle areas such as e-governance, data analysis, data visualization, and transparency in the supply chain. Seven prototypes of digital projects, to be scaled up over the next 12 months, were presented to the Administrator during a workshop in February 2020.

The Digital X Scale Accelerator, launched in December 2020, with applications due 12 January 2021, focuses on the need for more collaboration between UNDP Country Offices and outside partners to significantly increase the speed that digital solutions work at scale across UNDP, to recover from the pandemic and move beyond achieving the Sustainable Development Goals (SDGs). The Digital X Scale Accelerator was initiated to support teams turn what is working locally into a global success.

II. Audit results

Satisfactory performance was noted in the following areas:

(a) <u>Governance.</u> Controls and processes were in place to ensure that the objective of the various decentralized digital initiatives to support the digital strategy were achieved and that the projects approved as part of the initiative were completed or on track to be completed as agreed.

OAI made three recommendations ranked medium (important) priority.

Low priority issues/recommendations were discussed directly and agreed with the Office and are not included in this report.

Medium priority recommendations, arranged according to significance:

(a) Finalize and implement the Application Development Framework (Recommendation 1).

(b) Improve the way information regarding local digital initiatives is collected and shared (Recommendation 2).

(c) Establish an Application Developer Working Group (Recommendation 3)

The detailed assessment is presented below, per audit area:

A.	impact on corporate processes regarding information technology application development

Since the two digital initiatives executed during the audit period were well managed, and projects implemented under these initiatives were generally successful, the overall objective of the decentralized digital initiatives to support UNDP's digital strategy could be considered as achieved. However, as part of the audit, OAI noted the following areas for improvement regarding the information technology development process which, when addressed, could significantly contribute to the successful implementation of UNDP's digital strategy.

Issue 1   Suboptimal process to assess/support/promote locally developed applications to corporate level

According to best practices, to obtain optimal benefit from locally developed applications, organizations should have a process in place to assess these applications and, if found useful, scale them up to the corporate level. To facilitate the scaling-up process, the system should also provide guidance to local developers and share requirements for local developed applications to be considered for global use.

At the time of the audit, the Office of Information and Technology Management (ITM) was in the process of establishing a framework (Application Development Framework) that could be used to scale up local developments. However, the framework could be improved in several areas to enable easier and objective assessments as well as provide more detailed guidance for local developers (e.g., introduction of a method to establish the business value of an application or the high-level concepts to consider when designing an application).

Without strengthening the framework, it would be less easy for the organizational users/developers to quickly evaluate the suitability of applications for different use cases, follow organizational governance standards, and identify the correct project deliverables. Furthermore, the strengthened framework would promote flexibility and faster response to information technology trends as business units will be able to make independent decisions, making it easier for them to leverage new technology.

Priority	Medium (Important)
Recommendation 1:	

The Office of Information and Technology Management should finalize and implement the Application Development Framework, which, *inter alia,* should address the following:

- method to establish the business value of an application development (e.g., considering number of end users versus total cost or contribution of the application to achievement of development project objectives);
- description of the existing processes and approval workflows that must be navigated to get an application to production;
- high-level concepts to consider when designing an application, such as which platform to target, which deployment mechanism to choose;

- description of the prerequisites for information technology infrastructure, data classifications, user authentication, periodical review, license management, and related security requirements;   - description of the requirements for data processing by the applications and data storage within the applications; and   - description of the reporting requirements for the newly developed applications (e.g., what are the reporting tools, the benefits, scalability, and infrastructure).
Management action plan: The Office of Information and Technology Management will provide a framework that will propose a set of technologies and an approach to enable reuse, scaling, and quicker deployment of technical solutions that will address the recommendation. Work on providing the framework has already started. **Estimated completion date:** December 2021

Issue 2   Suboptimal use of capacities existing outside of Headquarters units regarding development/use of applications that (can) solve business problems/address local issues

To be able to elevate locally developed solutions to the corporate level, it is necessary to centralize information about local digital initiatives and locally available capacity to potentially support implementation and management of these initiatives.

To get an insight in local digital initiatives, ITM communicated with Country Offices in various ways:

- Through the global retreat for IT Managers organized (bi)-annually during which ITM briefed IT Managers outside of ITM about new developments and where IT Managers could share with the ITM colleagues as well as each other their problems and their developed solutions.
- Through the ICT Registry to be used by each Country Office to record their ICT infrastructure as well as information about locally developed applications.
- By managing a team of Regional ICT Specialists reporting to the Global ICT Specialist to support/advise the local IT Managers in their region who, by virtue of their dealings with the Country Offices, were more or less aware of what was going on locally.

However, despite these systems, information sharing regarding locally developed applications as well as the support that could be provided by ITM could be further improved. This was also evidenced by the fact that some Country Offices in the Asia and the Pacific region had implemented locally developed applications, possibly of interest to other Country Offices as well, which had not been communicated with ITM.

Without further extending the centralized system to collect and disseminate information about digital initiatives, UNDP cannot fully use its application development capacity available around the world. Furthermore, extending the centralized system would have a positive effect on UNDP's digital transformation process by facilitating knowledge sharing, allowing staff in one part of the organization to benefit and learn from digital initiatives implemented by other parts of the organization.

Priority	Medium (Important)

Recommendation 2:

The Office of Information and Technology Management should improve the way it collects and shares information regarding local digital initiatives by, *inter alia*:

- having the Regional ICT Specialists actively reach out to Country Offices, at a minimum once a year;
- replacing/updating the ICT Registry tool to make uploading and finding information regarding digital initiatives easier;
- setting minimal standards for uploading of information and checking compliance with these standards;
- creating a simple template that can be used for post implementation reviews, including some key performance indicators (e.g., development cost, development time, no of active users, potential cost / time savings);
- actively communicating digital initiatives with ICT staff and informing them about results;
- linking to the ongoing efforts / actions initiated by the Chief Digital Officer regarding promotion of digital initiatives; and
- informing Country Offices that might be reluctant to share information due to fear of losing control over their initiatives that this process aims at the centralization of information about digital initiatives and not taking control over them.

Management action plan:

The Office of Information and Technology Management will further formalize operational processes to address the recommendation by strengthening tools and processes in support of knowledge and information sharing to help define leading practices and establishment of standards. This will be supported by a formal communication function and communication strategy.

Estimated completion date: December 2021

Priority	Medium (Important)

Recommendation 3:

The Office of Information and Technology Management, in cooperation with the Chief Digital Officer, should establish a forum (Application Developer Working Group) with membership across different units of the organization, using existing corporate knowledge-sharing tools to communicate content useful to development teams across the organization.

It is foreseen that the forum will:

(a) have representatives from different skill areas and different areas of the organization, outside of the existing ICT network;
(b) promote digital development on the Country Office level by encouraging application development according to the Country Office needs and scale; and
(c) propose a defined decision matrix helping to determine whether the suggested application is a good candidate for development, and possibly also suggest how the application should be delivered.

Management action plan:

The Office of Information and Technology Management, in collaboration with the Chief Digital Officer, will create communities of interest to foster the exchange of knowledge success stories and new emerging technologies to improve the relevance and scalability of digital solutions. A framework to guide scalability will also be supporting this effort to fully address the recommendations.

Estimated completion date: December 2021

Definitions of audit terms - ratings and priorities

A.   AUDIT RATINGS

- **Fully Satisfactory**

  The assessed governance arrangements, risk management practices and controls were adequately established and functioning well. Issues identified by the audit, if any, are unlikely to affect the achievement of the objectives of the audited entity/area.

- **Satisfactory / Some Improvement Needed**

  The assessed governance arrangements, risk management practices and controls were generally established and functioning, but need some improvement. Issues identified by the audit do not significantly affect the achievement of the objectives of the audited entity/area.

- **Partially Satisfactory / Major Improvement Needed**

  The assessed governance arrangements, risk management practices and controls were established and functioning, but need major improvement. Issues identified by the audit could significantly affect the achievement of the objectives of the audited entity/area.

- **Unsatisfactory**

  The assessed governance arrangements, risk management practices and controls were either not adequately established or not functioning well. Issues identified by the audit could seriously compromise the achievement of the objectives of the audited entity/area.

B.   PRIORITIES OF AUDIT RECOMMENDATIONS

- **High (Critical)**

  Prompt action is required to ensure that UNDP is not exposed to high risks. Failure to take action could result in major negative consequences for UNDP.

- **Medium (Important)**

  Action is required to ensure that UNDP is not exposed to risks. Failure to take action could result in negative consequences for UNDP.

- **Low**

  Action is desirable and should result in enhanced control or better value for money. Low priority recommendations, if any, are dealt with by the audit team directly with the Office management, either during the exit meeting or through a separate memo subsequent to the fieldwork. Therefore, low priority recommendations are not included in this report.