



INTERNAL AUDIT DIVISION

REPORT 2014/085

Audit of information and communications technology management in the United Nations Human Settlements Programme

Overall results relating to information and communications technology management were initially assessed as partially satisfactory. Implementation of seven important recommendations remains in progress.

FINAL OVERALL RATING: PARTIALLY SATISFACTORY

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CONTENTS

	<i>Page</i>
I. BACKGROUND	1 – 2
II. OBJECTIVE AND SCOPE	2
III. AUDIT RESULTS	3 - 9
A. Strategic planning, governance and risk management	3 - 6
B. Project management capacity	6
C. Regulatory framework	6 - 8
D. ICT support systems	8 - 9
IV. ACKNOWLEDGEMENT	9
ANNEX I Status of audit recommendations	
APPENDIX I Management response	

AUDIT REPORT

Audit of information and communications technology management in the United Nations Human Settlements Programme

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted an audit of information and communications technology (ICT) management in the United Nations Human Settlements Programme (UN-Habitat).
2. In accordance with its mandate, OIOS provides assurance and advice on the adequacy and effectiveness of the United Nations internal control system, the primary objectives of which are to ensure: (a) efficient and effective operations; (b) accurate financial and operational reporting; (c) safeguarding of assets; and (d) compliance with mandates, regulations and rules.
3. UN-Habitat is mandated by the United Nations General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all.
4. UN-Habitat receives most of its income from voluntary contributions, primarily from governments and inter-governmental donors. Other partners such as local authorities, the private sector, multi-lateral organizations and other United Nations system organizations also made contributions, mainly to specific programmes. The UN-Habitat 2012 annual report provided detailed information about the distribution of funds by programme, special purpose/earmarked voluntary contributions, region, and country. UN-Habitat received a total of \$186.3 million in 2012, funded as follows: (i) 63 per cent from technical cooperation; (ii) 23 per cent from special purpose contributions; (iii) seven per cent from general purpose contributions; and (iv) seven per cent from regular budget allocations approved by the General Assembly. In the structure of the annual report adopted by UN-Habitat, the utilization of funds for ICT operations and initiatives was not presented as a separate line. However, through a budgeting mechanism introduced since 2003, UN-Habitat added a two per cent levy to the funding requested for the implementation of programmes that included activities related to information management.
5. The organization, functions, and responsibilities of UN-Habitat are regulated by the Secretary-General's bulletin on the subject, in conjunction with the Secretary-General's bulletin on the organization of the United Nations Office in Nairobi (UNON).
6. In accordance with the Secretary-General's bulletin on the organization of UNON, the UNON Information and Communications Technology Service (ICTS) provided ICT services to UN-Habitat, the United Nations Environment Programme (UNEP), and the other organizations (funds, programmes and agencies) of the United Nations system in Kenya.
7. Responsibilities for the management of ICT-related activities at UN-Habitat Headquarters in Nairobi were assigned to two units. The ICT Support Unit, with three staff members, had the primary responsibility of acting as a focal point and liaison with UNON/ICTS to ensure that ICT services provided by UNON were in line with UN-Habitat's strategic and operational needs. The Knowledge Management Support Unit, with five staff members, was responsible for implementing the knowledge and information management strategy and policies including archives and records management. A limited number of UN-Habitat regional and country offices had staff dedicated to ICT management. Those offices that did not have dedicated ICT staff engaged external ICT experts. In addition, in view of a

recruitment freeze introduced in 2011 on established positions, consultants were hired for the development of applications through funds earmarked for specific projects.

8. Comments provided by UN-Habitat are incorporated in *italics*.

II. OBJECTIVE AND SCOPE

9. The audit was conducted to assess the adequacy and effectiveness of UN-Habitat's governance, risk management and control processes in providing reasonable assurance regarding **effective and efficient management of ICT in UN-Habitat**.

10. The audit was included in the 2013 OIOS risk-based work plan at the request of UN-Habitat in view of the importance of ICT operations to support UN-Habitat's strategic programmes and activities. In particular, high risks were identified in field office connectivity, ICT governance, and ICT security.

11. The key controls tested for the audit were: (a) Strategic planning, governance and risk management; (b) Project management capacity; (c) Regulatory framework; and (d) ICT support systems. For the purpose of this audit, OIOS defined these key controls as follows:

(a) **Strategic planning, governance and risk management** – controls that provide reasonable assurance that risks relating to ICT management in UN-Habitat are identified and assessed, and that action is taken to mitigate them;

(b) **Project management capacity** - controls that provide reasonable assurance that there is adequate ICT project management capacity to achieve the strategic goals of UN-Habitat, including: (i) adequate financial resources; (ii) adequate and competent human resources; and (iii) appropriate project management tools, methodology and systems;

(c) **Regulatory framework** - controls that provide reasonable assurance that policies and procedures exist to guide the management of ICT in UN-Habitat; and

(d) **ICT support systems** - controls that provide reasonable assurance that the ICT systems adequately support the strategic programmes and operations of UN-Habitat.

12. The key controls were assessed for the control objectives shown in Table 1. Certain control objectives (shown in Table 1 as "Not assessed") were not relevant to the scope defined for this audit.

13. OIOS conducted this audit from 3 February 2014 to 31 March 2014. The audit covered the period from January 2012 to December 2013.

14. OIOS conducted an activity-level risk assessment to identify and assess specific risk exposures, and to confirm the relevance of the selected key controls in mitigating associated risks. Through interviews, analytical reviews and tests of controls, OIOS assessed the existence and adequacy of internal controls and conducted necessary tests to determine their effectiveness.

III. AUDIT RESULTS

15. UN-Habitat’s governance, risk management and control processes examined were assessed as **partially satisfactory**¹ in providing reasonable assurance regarding the **effective and efficient management of ICT in UN-Habitat**. OIOS made seven recommendations to address issues identified in the audit. UN-Habitat had established some good control practices to capture and track ICT assets, and developed a knowledge management strategy and policy. However, some control weaknesses were identified in the management of ICT, including: (i) an outdated ICT strategy and absence of a comprehensive ICT governance mechanism; (ii) inadequate ICT risk management processes; (iii) ICT financial resources not adequately identified and monitored; (iv) inadequate standard operating and service management procedures; and (v) inadequate business continuity, disaster recovery and ICT security measures.

16. The initial overall rating was based on the assessment of key controls presented in Table 1 below. The final overall rating is **partially satisfactory** as implementation of seven important recommendations remains in progress.

Table 1: Assessment of key controls

Business objective	Key controls	Control objectives			
		Efficient and effective operations	Accurate financial and operational reporting	Safeguarding of assets	Compliance with mandates, regulations and rules
Effective and efficient management of ICT in UN-Habitat	(a) Strategic planning, governance and risk management	Partially satisfactory	Partially satisfactory	Not assessed	Partially satisfactory
	(b) Project management capacity	Partially satisfactory	Partially satisfactory	Partially satisfactory	Partially satisfactory
	(c) Regulatory framework	Partially satisfactory	Partially satisfactory	Partially satisfactory	Partially satisfactory
	(d) ICT support systems	Partially satisfactory	Partially satisfactory	Not assessed	Partially satisfactory
FINAL OVERALL RATING: PARTIALLY SATISFACTORY					

A. Strategic planning, governance and risk management

ICT strategic and operational plans were incomplete, in draft form and outdated

17. An ICT strategy and corresponding operational plans should give direction and establish priorities for the investment and management of resources. The ICT strategy and plans should also establish criteria for implementing and monitoring the strategic decisions.

¹ A rating of “partially satisfactory” means that important (but not critical or pervasive) deficiencies exist in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

18. UN-Habitat implemented a series of ICT projects during the last ten years on the basis of documented ICT strategic plans. However, the overall ICT strategy was limited to initiatives and activities related to information management and public information, and did not include strategic goals and expected achievements relating to ICT management and operations. ICT operational plans were prepared on an annual basis but did not contain any specific details about ICT management and operations.

19. Inadequate ICT strategic and operational plans may lead to organizational requirements not being understood or addressed by ICT solutions, misallocation of resources, unnecessary ICT investments, and ICT not focused on the right priorities.

(1) UN-Habitat should, in coordination with UNON, develop ICT operational plans in alignment with the strategic goals defined in its medium-term plan and the upcoming implementation of Umoja. The operational plans should encompass: (i) all ICT initiatives; (ii) interrelationships and dependencies between projects; (iii) expected deliverables and time frames; (iv) technical resources required; and (v) anticipated risks, costs and benefits.

UN-Habitat accepted recommendation 1 and stated that given that delay of the Umoja deployment – which it is now planned for May 2015 - and the subsequent finalization of new business processes and changes in roles and responsibilities in the wider UN Secretariat, the recommended actions will be implemented by 31 December 2015. Recommendation 1 remains open pending the development of ICT operational plans aligned with the strategic goals and the implementation of Umoja, including the identification of interrelationships and dependencies between projects; expected deliverables and time frames; technical resources required; and anticipated risks, costs and benefits.

ICT governance structure and mechanisms were inadequate

20. An ICT governance framework should define the criteria and procedures for directing and monitoring investment, applications, and infrastructure.

21. 24. At its Headquarters in Nairobi, UN-Habitat participated in various ICT governance bodies, including a project review committee and a technical review group. However, in the opinion of UN-Habitat, these bodies were focused on the needs of Nairobi-based organizations and did not adequately address the global ICT needs of its regional and country offices located outside Nairobi.

22. In addition, UN-Habitat was represented by UNON/ICTS in the ICT Management Group coordinated by the Office of Information and Communications Technology (OICT) of the Department of Management in New York. UN-Habitat noted that these arrangements were not always effective because its priorities, needs, and proposed solutions were not always consistent with the views and priorities of UNON/ICTS, and those of the UN ICT Management Group in New York. For example, while UN-Habitat had prioritized and approved the implementation of an enterprise content management, this initiative was never implemented by UNON/ICTS. Furthermore, the ICT committees established for the technical review of projects did not meet regularly, and their working methods were not considered adequate to address the needs of UN-Habitat.

23. UN-Habitat did not have an internal ICT governance body and framework to formulate its own global ICT requirements, as required by the Secretary-General's bulletin on Information and Communications Technology Board.

24. The absence of adequate ICT governance structure and mechanisms could lead to unclear roles and responsibilities, and lack of involvement of business users in the definition and assessment of ICT requirements.

(2) UN-Habitat should establish governance mechanisms, including an internal ICT Committee, in accordance with the provisions of the Secretary-General's bulletin on the Information and Communications Technology Board. These mechanisms should include the roles and responsibilities for ICT in UN-Habitat regional and country offices.

UN-Habitat accepted recommendation 2 and stated that the recommended actions will be implemented by 31 March 2015. Recommendation 2 remains open pending receipt of evidence demonstrating that UN-Habitat has established governance mechanisms, including an internal ICT Committee and the definition of roles and responsibilities for ICT in UN-Habitat regional and country offices.

ICT risk management processes were not adequate

25. Risk management is a recommended activity for monitoring, evaluating, and managing risks pertaining to all major ICT systems.

26. UN-Habitat addressed ICT risks in a partial and inconsistent manner. A review of the annual project documents showed that ICT risks were considered and assessed only in two of the eight ICT projects conducted by UN-Habitat since 2005. In addition, UN-Habitat commissioned two studies by external consulting entities for an analysis of security risks of its application development process and electronic collaboration platform. However, the scope of these risk analyses was limited because excluded an assessment of the ICT risks associated with its mandate and operations (i.e., Management of ICT assets and resources).

27. A consistent and complete risk management process was not in place to adequately identify and assess the likelihood and impact of ICT risks to the implementation of UN-Habitat programmes. In particular, the main control weaknesses identified in this area included the absence of analysis related to:

(i) Human resources risks associated with the potential inability of the current ICT staff to support the operational needs of UN-Habitat, especially in light of the recent organizational review;

(ii) Financial risks arising from not knowing the total cost of ICT; and

(iii) Operational risks arising from not having standard ICT applications and infrastructure across all offices.

28. The absence of an ICT risk management function could prevent the timely identification and mitigation of risks to the implementation of UN-Habitat's strategic programmes and activities.

(3) UN-Habitat should design and implement policies and procedures to monitor, evaluate, and manage ICT risks in the implementation of its strategic programmes and activities.

UN-Habitat accepted recommendation 3 and stated that it will incorporate ICT risk management within its operational plan and that a risk management framework is also part of UN-Habitat's standard project template. Recommendation 3 remains open pending receipt of evidence demonstrating that UN-Habitat designed and implemented policies and procedures to

monitor, evaluate, and manage ICT risks in the implementation of its strategic programmes and activities.

B. Project management capacity

ICT financial resources, budgets, and costs were not adequately identified and monitored

29. Financial resources, costs, and benefits associated with ICT projects and operations should be visible, comparable and consistent, and allow for ongoing reviews of the overall ICT budget and that of specific ICT initiatives.

30. In 2003, UN-Habitat introduced a budgeting mechanism to fund ICT-related activities associated with the substantive programmes approved. Through this budgeting mechanism, a two per cent levy was added to the funding requested for the implementation of programmes that included activities related to information management. However, the amount of this levy was unpredictable because: (i) it depended on the level of annual project expenditure; and (ii) some donors did not agree with the inclusion of the levy for projects funded by them. In addition, its application was limited only to ICT activities directly associated with substantive programmes and did not include ICT support for administrative functions.

31. Given the unpredictability of the two per cent levy and the limited scope of its application, the financial resources and costs of the whole ICT function in UN-Habitat were not clearly identified. Budgets did not have dedicated lines for ICT-related costs and expected outputs/outcomes.

32. Although, the annual project documents included budget information, the total cost of ICT in UN-Habitat was unknown. There was no defined funding source for ICT services, and funding for ICT activities was inconsistent across the Organization, resulting in critical projects that were put on hold due to lack of funding (i.e., connectivity project with field office locations).

33. Inadequate ICT costing and budgeting processes may lead to the ICT budget not reflecting UN-Habitat's business needs, weak controls over spending, and lack of transparency in the contribution and value added by ICT to the Organization.

(4) UN-Habitat should design and implement procedures for the preparation of a budget for the whole ICT function in UN-Habitat, including the operation and maintenance of applications and communication infrastructure.

UN-Habitat accepted recommendation 4 and stated that as most of its funding is earmarked for specific projects, a significant portion of the ICT budget needs to be incorporated in those projects. UN-Habitat is therefore finalizing its cost attribution and recovery policy which includes procedures for incorporating an ICT component in all earmarked project budgets subject to donor agreement. Recommendation 4 remains open pending receipt of evidence demonstrating that UN-Habitat has incorporated ICT budgets estimates in its projects, including those for the operation and maintenance of applications and communications infrastructure.

C. Regulatory framework

ICT standard operating procedures were inadequate

34. Management of ICT should be supported by standard operating procedures (SOP) that ensure repeatable and consistent activities and results.

35. Although the ICT Support Unit of UN-Habitat started documenting SOP for ICT, this document was incomplete and still in draft form since 2012. For example, the annexes of the SOP related to standard devices, archive and record management, application development guidelines, and mobile policy had not been completed. Therefore, except for policies related to email and mobile communication devices, the majority of ICT operations were managed without SOP.

36. Inadequate or unavailable SOP may lead to errors and rework due to misunderstanding, inefficiencies, and inability to promptly address operational problems.

(5) UN-Habitat should develop and maintain a set of standard operating procedures to complement those issued by UNON/ICTS, including: (i) policies, instructions and guidelines for ICT processes and services; and (ii) procedures for the internal help-desk supporting enterprise applications.

UN-Habitat accepted recommendation 5 and stated that the development of SOP is led by UNON/ICTS with UN-Habitat providing input via the Nairobi-wide Technical Review Group. UN-Habitat will only develop SOP where the UNON/ICTS procedures do not meet all of UN-Habitat's requirements. With regard to the help desk functions, UN-Habitat already has help desk email accounts, services, and super-users focal points for internal applications. UNON/ICTS provides a help desk function for the majority of the UN wide applications. Recommendation 5 remains open pending receipt of documented SOP addressing the specific ICT requirements of UN-Habitat for processes and services.

Procedures for ICT service management were not documented

37. An ICT service management framework should define the level of support required for the continuous and reliable functioning of the ICT systems and operations. The framework should detail criteria and processes and also specify roles, tasks, and responsibilities of internal and external service providers and users.

38. In UN-Habitat, ICT service management details were only defined and documented for the ICT common services provided by UNON/ICTS. These arrangements were governed by a 2004 memorandum of understanding (MOU), with specific provisions outlined in supporting SLA. However, the MOU and supporting SLA were outdated and needed to be realigned with the new requirements and priorities of UN-Habitat. In addition, the SLA did not define procedures for monitoring and reporting on the performance of the services received.

39. UN-Habitat did not have documented criteria, standards and performance indicators defining roles, responsibilities, and tasks for ICT service management at Headquarters in Nairobi and in regional and country offices.

40. Inadequate ICT service management may lead to the unavailability of ICT systems and decreased user satisfaction.

(6) UN-Habitat should, in coordination with UNON: (i) conduct a comprehensive review of its requirements for ICT support systems and update the memorandum of understanding and service level agreements regulating the provision of ICT services; and (ii) develop service management procedures with the definition of: (a) criteria, standards, and performance indicators; and (b) roles, responsibilities, and tasks for ICT service management at UN-Habitat headquarters in Nairobi and in the regional and country offices.

UN-Habitat accepted recommendation 6 and stated that there are significant changes being instituted by the Department of Management with regard to the service provision framework, including ICT services, in view of Umoja implementation. UN-Habitat was recently informed about a new rate card being developed for services and associated SLA. UN-Habitat's implementation of this recommendation needs to be aligned to the new UN wide support model being introduced. Recommendation 6 remains open pending receipt of evidence demonstrating that UN-Habitat has conducted a comprehensive review of its ICT requirements and associated SLA in line with the latest ICT support model defined by in the Secretariat.

D. ICT support systems

A global business continuity and disaster recovery plan was not in place

41. A business continuity plan should define how an organization will respond to unexpected internal and external threats, with instructions and activities related to the actions required by all parties responsible for ensuring the continuation of operations under adverse conditions.

42. UNON established a business continuity and disaster recovery process for the entities hosted in Nairobi. UN-Habitat documented a draft business continuity plan for the activities at its headquarters in Nairobi.

43. However, there was no framework in place to ensure that the regional and country offices of UN-Habitat had adequate business continuity plans, including backup arrangements and disaster recovery mechanisms. The ICT Support Unit of UN-Habitat conducted periodic backups of critical data limited to the Nairobi headquarters. This backup was stored on-site, with no off-site copy for disaster recovery.

44. The absence of adequate business continuity and disaster recovery arrangements could lead to failures in the timely recovery of ICT systems and applications, and unavailability of communications systems.

ICT security in regional and country offices was not adequately addressed

45. Organizations should define information security policies and assign specific responsibilities for their implementation, monitoring, and compliance.

46. UNON/ICTS provided ICT security services to UN-Habitat in Nairobi but not for the regional and country offices.

47. UN-Habitat implemented several initiatives to address the security risks pertaining to its ICT operations. However, in the implementation of these initiatives, UN-Habitat lacked adequate procedures for managing the ICT security of UN-Habitat regional and country offices, including incidents handling and reporting, and vulnerability testing and mitigation.

48. Lack of adequate ICT security could lead to potential loss of information assets, breach of confidential information, and unavailability of ICT systems and applications.

(7) UN-Habitat should: (i) assess its ICT security requirements; (ii) document procedures and responsibilities for their implementation, monitoring, and compliance; and (iii) develop, implement, and test a comprehensive business continuity and disaster recovery plan for its

ICT systems and applications both at Nairobi and in its regional and country offices.

UN-Habitat accepted recommendation 7 and stated that it will focus on the ICT Security requirements for applications and services that are not provided by the UN Secretariat including UNON/ICTS– and that this approach will be part of its annual operational plans. Recommendation 7 remains open pending receipt of documented evidence demonstrating that UN-Habitat has assessed its ICT security requirements; documented procedures and responsibilities for implementation, monitoring, and compliance; and implemented and tested a comprehensive business continuity and disaster recovery plan for its ICT systems and applications both at Nairobi and in its regional and country offices.

IV. ACKNOWLEDGEMENT

49. OIOS wishes to express its appreciation to the Management and staff of UN-Habitat for the assistance and cooperation extended to the auditors during this assignment.

(Signed) David Kanja
Assistant Secretary-General for Internal Oversight Services

STATUS OF AUDIT RECOMMENDATIONS

Audit of information and communications technology management in the United Nations Human Settlements Programme

Recom. no.	Recommendation	Critical ² / Important ³	C/ O ⁴	Actions needed to close recommendation	Implementation date ⁵
1	UN-Habitat should, in coordination with UNON, develop ICT operational plans in alignment with the strategic goals defined in its medium-term plan and the upcoming implementation of Umoja. The operational plans should encompass: (i) all ICT initiatives; (ii) interrelationships and dependencies between projects; (iii) expected deliverables and time frames; (iv) technical resources required; and (v) anticipated risks, costs and benefits.	Important	O	Develop ICT operational plans aligned with the implementation of Umoja, including the identification of interrelationships and dependencies between projects; expected deliverables and time frames; technical resources required; and anticipated risks, costs and benefits.	31 December 2015
2	UN-Habitat should establish governance mechanisms, including an internal ICT Committee, in accordance with the provisions of the Secretary-General's bulletin on the Information and Communications Technology Board. These mechanisms should include the roles and responsibilities for ICT in UN-Habitat regional and country offices.	Important	O	Establish governance mechanisms, including an internal ICT Committee and the definition of roles and responsibilities for ICT in UN-Habitat regional and country offices.	31 March 2015
3	UN-Habitat should design and implement policies and procedures to monitor, evaluate, and manage ICT risks in the implementation of its strategic programmes and activities.	Important	O	Design and implement policies and procedures to monitor, evaluate, and manage ICT risks in the implementation of its strategic programmes and activities.	30 December 2015
4	UN-Habitat should design and implement procedures for the preparation of a budget for the whole ICT function in UN-Habitat, including the operation and maintenance of applications and communication infrastructure.	Important	O	Incorporate ICT budgets estimates in projects, including those for the operation and maintenance of applications and communications infrastructure.	31 March 2015

² Critical recommendations address significant and/or pervasive deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance cannot be provided regarding the achievement of control and/or business objectives under review.

³ Important recommendations address important deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

⁴ C = closed, O = open

⁵ Date provided by UN-Habitat in response to recommendations.

STATUS OF AUDIT RECOMMENDATIONS

Audit of information and communications technology management in the United Nations Human Settlements Programme

Recom. no.	Recommendation	Critical ² / Important ³	C/ O ⁴	Actions needed to close recommendation	Implementation date ⁵
5	UN-Habitat should develop and maintain a set of standard operating procedures to complement those issued by UNON/ICTS, including: (i) policies, instructions and guidelines for ICT processes and services; and (ii) procedures for the internal help-desk supporting enterprise applications.	Important	O	Document standard operating procedures addressing the specific ICT requirements of UN-Habitat for processes and services.	31 March 2015
6	UN-Habitat should, in coordination with UNON: (i) conduct a comprehensive review of its requirements for ICT support systems and update the memorandum of understanding and service level agreements regulating the provision of ICT services; and (ii) develop service management procedures with the definition of: (a) criteria, standards, and performance indicators; and (b) roles, responsibilities, and tasks for ICT service management at UN-Habitat headquarters in Nairobi and in the regional and country offices.	Important	O	Conduct a comprehensive review of ICT requirements and associated service level agreements in line with the latest ICT support model defined by in the Secretariat.	31 December 2015
7	UN-Habitat should: (i) assess its ICT security requirements; (ii) document procedures and responsibilities for their implementation, monitoring, and compliance; and (iii) develop, implement, and test a comprehensive business continuity and disaster recovery plan for its ICT systems and applications both at Nairobi and in its regional and country offices.	Important	O	Assess ICT security requirements; document procedures and responsibilities for implementation, monitoring, and compliance; and implement and test a comprehensive business continuity and disaster recovery plan for ICT systems and applications both at Nairobi and in regional and country offices.	31 December 2015

APPENDIX I

Management Response

Management Response

Audit of information and communications technology management in the United Nations Human Settlements Programme

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	UN-Habitat should, in coordination with UNON, develop ICT operational plans in alignment with the strategic goals defined in its medium-term plan and the upcoming implementation of Umoja. The operational plans should encompass: (i) all ICT initiatives; (ii) interrelationships and dependencies between projects; (iii) expected deliverables and time frames; (iv) technical resources required; and (v) anticipated risks, costs and benefits.	Important	Yes	Officer in Charge, Office of Management	31 December 2015	Date reflects delay in Umoja deployment now planned for May 2015 and subsequent finalization of new business processes and changes in roles and responsibilities being established in the wider UN Secretariat
2	UN-Habitat should establish governance mechanisms, including an internal ICT Committee, in accordance with the provisions of the Secretary-General's bulletin on the Information and Communications Technology Board. These mechanisms should include the roles and responsibilities for ICT in UN-Habitat regional and country offices.	Important	Yes	Officer in Charge, Office of Management	31 March 2015	
3	UN-Habitat should design and implement policies and procedures to monitor, evaluate, and manage ICT risks in the implementation of its strategic programmes and activities.	Important	Yes	Head, ICT Unit, Office of Management	30 December 2015	UN-Habitat will incorporate the ICT risk management within its operational plan – a risk management framework is also part of UN-Habitat's standard project template

¹ Critical recommendations address significant and/or pervasive deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance cannot be provided regarding the achievement of control and/or business objectives under review.

² Important recommendations address important deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

Management Response

Audit of information and communications technology management in the United Nations Human Settlements Programme

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
4	UN-Habitat should design and implement procedures for the preparation of a budget for the whole ICT function in UN-Habitat, including the operation and maintenance of applications and communication infrastructure.	Important	Yes	Officer-in-Charge Office of Management	31 March 2015	As most of UN-Habitat's funding is earmarked for specific projects, a significant portion of the ICT budget needs to be incorporated in those projects. UN-Habitat is therefore finalizing its cost attribution and recovery policy which includes procedures for incorporating an ICT component in all earmarked project budgets subject to donor agreement.
5	UN-Habitat should develop and maintain a set of standard operating procedures to complement those issued by UNON/ICTS, including: (i) policies, instructions and guidelines for ICT processes and services; and (ii) procedures for the internal help-desk supporting enterprise applications.	Important	Yes	Head, ICT Unit, Office of Management	31 March 2015	<p>The development of standard operating procedures is led by UNON/ICTS with UN-Habitat providing input via the Nairobi-wide Technical Review Group. UN-Habitat will only develop SOPs, where the UNON/ICTS procedures do not meet all of UN-Habitat's requirements.</p> <p>With regard to the Help Desk functions, UN-Habitat already has help desk email accounts and services for internal applications and for mission-critical applications has trained super-user focal points within different offices to provide first level support. UNON/ICTS provides a Help Desk function for the majority of the UN wide applications</p>
6	UN-Habitat should, in coordination with UNON: (i) conduct a comprehensive	Important	Yes	Officer in Charge,	31 December 2015	There are significant changes being instituted by the UN Department of

Management Response

Audit of information and communications technology management in the United Nations Human Settlements Programme

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
	review of its requirements for ICT support systems and update the memorandum of understanding and service level agreements regulating the provision of ICT services; and (ii) develop service management procedures with the definition of: (a) criteria, standards, and performance indicators; and (b) roles, responsibilities, and tasks for ICT service management at UN-Habitat headquarters in Nairobi and in the regional and country offices.			Office of Management,		Management with regard to the service provision framework including ICT services, in view of Umoja implementation. UN-Habitat was also informed in August 2015, of a new rate card being developed for services and associated Service Level Agreements. UN-Habitat's implementation of this recommendation needs to be aligned to the new UN wide support model being introduced.
7	UN-Habitat should: (i) assess its ICT security requirements; (ii) document procedures and responsibilities for their implementation, monitoring, and compliance; and (iii) develop, implement, and test a comprehensive business continuity and disaster recovery plan for its ICT systems and applications both at Nairobi and in its regional and country offices.	Important	Yes	Head, ICT Unit, Office of Management	31 December 2015	UN-Habitat will focus on the ICT Security requirements for applications and services not by the UN Secretariat including UNON/ICTS– this will form part of the annual operational plans.