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Strategic capital review

Report of the Secretary-General

Summary

The present report is submitted pursuant to section II of General Assembly resolution 69/274 A, relating to the initiative for global property management of the United Nations Secretariat referred to as the strategic capital review.

The present report provides an update on the cost-benefit analysis of the overall proposed capital maintenance approach for United Nations-owned building and infrastructure assets, including a revised empirical analysis. The report provides an update on the global guidelines for the management of construction projects, which ¹were issued in January 2016. The guidelines set global policy on the roles and responsibilities of various actors in the various phases of construction process, and on risk management and the establishment and use of contingency funding.

The report includes an update on the capital maintenance programme, initially presented in the previous report of the Secretary-General (A/69/760), including an updated list of near-term proposed capital projects to be undertaken at the United Nations Office at Nairobi, the Economic Commission for Africa, the Economic and Social Commission for Asia and the Pacific and the Economic Commission for Latin America and the Caribbean. The report also includes information on other considerations, including accessibility and the rights of persons with disabilities, global long-term accommodation requirements and flexible workplace strategies.

The General Assembly is requested to take note of the report and to request the Secretary-General to report to the Assembly at the main part of the seventy-second session.

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I. Introduction

1. The present report is submitted pursuant to section II of General Assembly resolution 69/274 A, in which the Assembly requested the Secretary-General to better assess the potential costs and benefits of a preventive maintenance programme, as compared with the existing reactive approach, including through a more in-depth analysis of the life cycle replacement methodology.

2. In addition, the Assembly requested the Secretary-General to entrust the Office of Central Support Services to ensure that best practices and lessons learned from the strategic capital review are disseminated among duty stations; stressed that the development of a long-term capital programme should include within its scope a prioritization strategy; reaffirmed that any potential proposals stemming from the strategic capital review with budgetary implications should follow the procedures set out in the Financial Regulations and Rules of the United Nations; and emphasized the importance of ensuring the availability of appropriate in-house expertise in the context of the implementation of the strategic capital review.

3. The Assembly also stressed the importance of eliminating physical, communication and technical barriers for persons with disabilities.

4. In his previous report (A/69/760), the Secretary-General presented the findings and conclusions of the initial review, including the 20-year capital maintenance programme, which projects a sequence of capital improvement activities over a 20year period beginning in 2018 through to 2037. This was developed according to the established key objectives of the review: to provide safe and healthy working environments for United Nations delegates, visitors and staff over the long term; to comply with the Convention on the Rights of Persons with Disabilities; to maintain property value, maximize space usage efficiency in existing spaces, modernize building systems and move towards more energy-efficient facilities; and to preserve heritage assets and minimize work disruption during capital improvement projects.

5. The scope of the review covered eight locations (Addis Ababa, Bangkok, Beirut, Geneva, Nairobi, New York, Santiago and Vienna) as well as 20 subregional offices of the regional commissions and the International Residual Mechanism for Criminal Tribunals in Arusha and remains unchanged in the present report.

6. The purpose of the present report is to provide updated information on the ongoing development/refinement of the 20-year rolling capital programme as well as the current status of detailed feasibility studies for several proposed projects. In particular, the report provides updated information on the cost-benefit comparison of the incremental recapitalization (or proactive) approach to maintaining property as compared with the run-to-failure (or reactive) approach and on the completion of organization-wide policy guidelines on the management of construction projects.

7. In general terms, the present report, as well as all future reports on the strategic capital review, is intended to serve as a planning tool for the General Assembly in considering cross-cutting policy issues that affect capital planning across the Organization and in beginning to consider and plan for future capital requirements well in advance. The report is not intended to serve as a mechanism for seeking approval for specific project proposals. Rather, in line with Assembly resolution 69/274 A and related resolutions, such proposals will be made either as part of the proposed programme budget (typically under section 33) or as stand-alone proposals, and the Assembly would be requested to consider individual proposals on their own merit.

II. Cost-benefit analysis of the proposed capital maintenance approach

8. In response to the request of the General Assembly to better assess the potential costs and benefits of a preventive maintenance programme as compared with the existing reactive approach, including through a more in-depth analysis of the life-cycle replacement methodology, the Office of Central Support Services engaged a specialist cost-estimation consultancy firm to perform a detailed comparative analysis of the two approaches presented in the previous report of the Secretary-General. Two general approaches were presented in section V of the report: (a) incremental recapitalization, or the proactive approach, which aims to gradually and systematically perform capital improvements throughout the life of a building, in an attempt to avoid what would otherwise be larger-scale and higherrisk projects; and (b) run-to-failure, or the reactive approach, which aims to replace whole buildings or building components only after they fail or reach the end of their useful lives.

9. In the previous report, the Secretary-General made the case that incremental recapitalization would be the most cost-effective approach, citing a generic example of a building with a value of \$100 million and a useful life of 50 years and providing alternative options for how much it would cost to extend (in fact double) the life of the building to 100 years. However, the example was not rooted in specific, empirical data from the building and infrastructure asset portfolio of the United Nations Secretariat, nor did it provide an actual estimate of how much the Secretariat could expect to save by adopting such an approach.

10. Accordingly, during the reporting period the Secretariat conducted a comprehensive analysis of the global portfolio of the Organization, across all duty stations within the scope of the strategic capital review, and estimated the projected costs over a 50-year period for each of the two possible options for capital maintenance. The findings of the analysis are included herein.

Work methodology for the cost-benefit analysis

11. In order to perform the overall comparison, the team first selected several specific buildings to analyse in detail and use as case studies. These were the Secretariat Building, the Conference Building and the General Assembly Building at Headquarters in New York and the secretariat tower and conference building at the Economic and Social Commission for Asia and the Pacific (ESCAP) in Bangkok. These five buildings were selected because they represent a broad range and diversity in terms of initial cost of construction, cost of renovation, climatic conditions at their locations, construction type, general market conditions, project "soft" costs and the cost of temporary premises to be used during construction/renovation, referred to as "swing space".

12. The team performed a detailed analysis of the property values, in terms of gross replacement cost, of each building and broke them down at the level of the four primary building components — superstructure, roofs, interior construction and building systems — and at further levels of granularity at the subcomponent level. For example, the building systems component was further broken down to electrical, mechanical, plumbing, conveying and low-voltage systems.

13. It should be noted that among the observations and recommendations made by the Advisory Committee on Administrative and Budgetary Questions in its report on the strategic capital review (A/69/811) was that future decisions regarding the level of resources required for future capital investment should depend on the application of a reliable, consistent and realistic valuation methodology. Given that with the adoption of the International Public Sector Accounting Standards (IPSAS), property values for buildings and infrastructure assets are based on replacement costs as opposed to market value, these costs are ideally suited to use as the basis for projecting future capital requirements.

14. The team then established a common set of objectives for the maintenance of the buildings and assumptions for the cost-benefit analysis to be performed. The objectives were (a) to at least maintain current property value, based on 2015 costs and a "simple" calculation (meaning that currency, inflation and the costs of construction escalation are not included); and (b) to extend the useful life of the building by 50 years (or double the life of the 50-year building) and record overall capital maintenance costs for that 50-year period. The study assumes that buildings have been upgraded to minimum operating standards and have a remaining useful life of 50 years at the outset; hence the total gross replacement cost is used.

15. Non-quantifiable benefits such as business continuity and adherence to minimum operating standards were not considered; the analysis dealt only with quantifiable benefits.

16. The team then projected the total capital maintenance costs for each of the two options for each of the five case studies, establishing a difference in percentage terms for the subcomponents of each. Lastly, the team applied the same proportionally to all of the buildings within the global portfolio of the Organization.

17. The results of the analysis are summarized in table 1.

Table 1

Results of the cost-benefit analysis of the two options for a capital maintenance programme (United States dollars)

Duty station	Gross replacement cost (all assets)	Option 1 — Incremental recapitalization	Option 2 — Run-to-failure	Difference	Difference (percentage)
Headquarters	1 993 653 759	1 548 783 715	2 289 723 252	740 939 538	32
United Nations Office at Geneva	1 090 661 196	867 115 401	1 189 970 577	322 855 176	27
United Nations Office at Nairobi	152 583 055	77 551 701	130 666 169	53 114 469	41
United Nations Office at Vienna	_	_	_	_	
Economic and Social Commission for Asia and the Pacific	141 430 089	130 054 400	221 248 373	91 193 973	41
Economic Commission for Latin America and the Caribbean	66 828 409	41 687 358	67 003 537	25 316 180	38
Economic Commission for Africa	317 037 785	246 985 490	362 537 181	115 551 691	32
Economic and Social Commission for Western Asia	624 381	-	-	-	
Total	3 762 818 673	2 912 178 063	4 261 149 090	1 348 971 026	32

18. The total difference in the cost of the incremental recapitalization option over a 50-year period as compared with the run-to-failure approach is approximately \$1,350,000,000, or 32 per cent. This represents an average of approximately \$54 million per biennium and hence is regarded as the most cost-effective option.

19. In addition to the quantifiable benefits of the cost of the implementation of capital projects, the incremental approach also affords the Organization additional quantifiable benefits related to the cost of ongoing operations in buildings that are maintained in good working condition. In its report on the capital master plan (A/70/5 (Vol. 5)), issued in June 2015, the Board of Auditors estimated that the savings expected to be realized in operations could be as much as 12 per cent over time (para. 53), related primarily to lower asset operational costs.

20. The incremental recapitalization approach also delivers the following important non-quantifiable benefits:

(a) It reduces the risk of failure of building systems and thereby the risk of exposing delegates, staff and visitors to unwarranted threats of such failures by proactively maintaining the systems;

(b) It increases the likelihood of maintaining business continuity during the implementation of capital projects by planning them in advance;

(c) It affords Member States more advance notice of funding requirements and therefore also affords the opportunity to provide funding on a steady basis, as opposed to irregularly/as required.

21. Irrespective of the possible benefits described above, as presented in the previous report of the Secretary-General, the capital projects identified in the initial strategic capital review in the first several bienniums and further described later in the present report are required to bring the buildings up to modern, safe and efficient standards.

22. In addition, although the Secretariat considers that it is useful, for its own purpose as well as for benchmarking against industry best practice, to analyse the required level of capital reinvestment resources relative to gross property value, the analysis is not presented as a determinant itself for establishing the requirements. The overall requirements as initially presented in the previous report, particularly those for the forthcoming several bienniums, will continue to be determined on actual needs-based assessments.

III. Real estate planning and management

A. Guidelines for the management of global construction projects

23. As part of an ongoing effort to link practical project management procedures with the best practices of the Organization, the Overseas Properties Management Unit within the Office of Central Support Services has developed guidelines for the management of construction projects for use in implementing large-scale construction projects. The guidelines were completed and issued to Headquarters and offices away from Headquarters in January 2016.

24. The guidelines were developed to assist project owners and their designated executives and project managers in providing effective management of construction projects at offices of the United Nations Secretariat.

25. The guidelines provide a holistic view of large-scale projects and place them within the context of United Nations organizational processes, and are intended to serve the following purposes:

(a) To define the various project phases as outlined below and the relevant organizational processes for each phase, including procurement, administration and legislative processes;



(b) To define the roles and responsibilities of various actors, both within the Organization and those performing contracted services outside the Organization, as well as host country authorities, throughout project management phases;

(c) To share industry best practices as well as lessons learned from previous large-scale construction projects undertaken by the Secretariat.

26. There is a clear link between the guidelines and the strategic capital review, because forward capital planning is a prerequisite to the implementation of any capital project undertaken by the Organization. Such planning includes the development of a business case, the establishment of project objectives and an evaluation of implementation options.

B. Oversight and governance

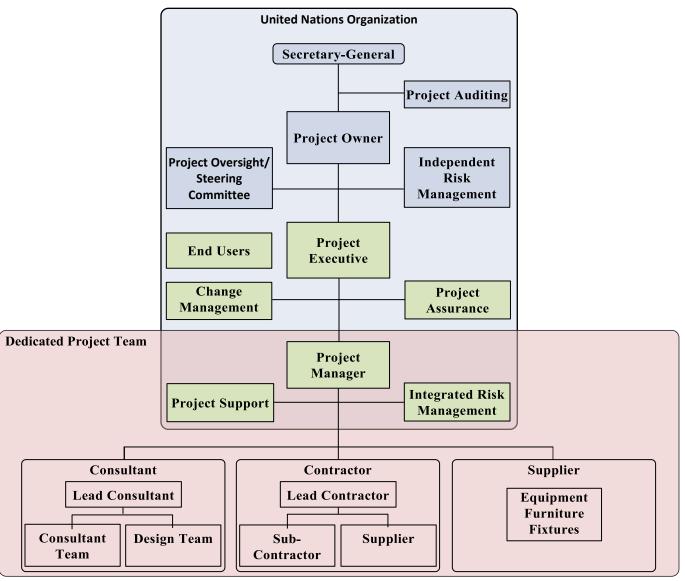
27. As reported in the previous report of the Secretary-General and in line with the Secretary-General's bulletin on the organization of the Office of Central Support Services (ST/SGB/2013/1), the Office provides support and coordination to offices away from Headquarters and regional commissions in the management of their properties and construction projects.

28. The strategic capital review and projects emanating from the review continue to be coordinated by the Overseas Properties Management Unit under the overall leadership of the Assistant Secretary-General for Central Support Services. Owing to the significant age, number and value of the buildings and infrastructure assets owned by the Organization and included in the scope of the strategic capital review and immediate work required to improve the assets, the workload of the Unit has seen significant increase since 2010, when the total value of ongoing construction projects was only \$48 million, whereas as of 2016 the total value of ongoing construction projects is more than \$900 million, with additional projects in planning valued at over \$100 million. In this context, the Secretary-General intends to review the capacity of the Unit and make proposals in his next proposed programme budget for the biennium 2018-2019.

29. The Office of Central Support Services is guided by various recent and relevant resolutions of the General Assembly on the subject of its governance and role, most recently those issued during the main part of the seventieth session of the Assembly. In the context of the renovation of Africa Hall at the Economic Commission for Africa (ECA), the Assembly emphasized that the Office should be actively involved in overseeing the project to ensure central supervision of capital projects, including risk management and alignment with lessons learned. In the context of the proposal for the seismic retrofit of the Secretariat building at ESCAP, the Assembly emphasized the importance of guidance, interaction and coordination between the Secretariat in New York, on the one hand, and the Commission in Bangkok, on the other, with clear reporting lines.

30. The generic organizational chart below, as included in the guidelines, serves as a basis for offices undertaking capital projects, in coordination with the Office of Central Support Services, to develop project-specific organizational structures for these upcoming projects (see annex I for a matrix showing the respective roles and responsibilities within the reference project governance structure).

Project organization



Authority

Client/Programme Management

Project Management

Dedicated Project Team

31. The Secretariat is also in the process of establishing specific administration and coordination agreements with ECA and ESCAP, respectively, for the management of these projects (or proposed project, in the case of ESCAP), which will be established on the basis of the generic roles and responsibilities defined in the project guidelines. 32. The Office of Central Support Services continues to perform its ongoing role of providing technical guidance and advice on other current projects, including the strategic heritage plan of the United Nations Office at Geneva, the new facility for the Mechanism for International Criminal Tribunals in Arusha and the blast mitigation project at the Economic and Social Commission for Western Asia (ESCWA) in Beirut.

33. Additionally, the Secretariat intends to solicit the services of the Office of Internal Oversight Services to perform regular, periodic audits of capital projects emanating from the strategic capital review, as and when they are approved for implementation by the General Assembly.

C. Risk management

34. Also in line with relevant General Assembly resolutions as well as the recommendations of the Board of Auditors on both the capital master plan in New York and the strategic heritage plan in Geneva, the guidelines for the management of global construction projects emphasize the subject of risk management.

35. The guidelines stipulate that all large-scale capital projects undertaken by the Secretariat should include risk management planning and practices to ensure that projects are successfully completed within the overall timeline, scope and budget approved by the Assembly, even if/when faced with threats or actions that may adversely affect the project.

36. At a minimum, a risk register should be established and regularly updated and should identify any possible risks to the project in various categories, i.e., technical, administration, procurement and contracting, resources, governance, host country implementation, stakeholders, safety and security, etc. The establishment of a register improves the likelihood of successfully achieving the project objectives and outputs by enabling the project team to make calculated, risk-based decisions.

37. For large, complex projects, the risk register should include a qualitative analysis in which risks are scored according to their likelihood (improbable, probable or very probable) and level of impact (low, medium or high). Additionally, a quantitative analysis should be performed, which simulates the potential financial impact of risks occurring as well as the anticipated total project cost.

38. For the largest and most complex projects, such as the strategic heritage plan in Geneva and the renovation of Africa Hall in Addis Ababa, risk management services should be performed by an independent entity, which should report directly to the project owner.

39. For all projects, risk mitigation actions should be developed and closely monitored. The risk management process is summarized in table 2.

Risk management process	
Tasks	Deliverables
Risk management planning	Risk management plan
Risk identification	Project risk register
Risk analysis (qualitative and/or quantitative)	Prioritized list of risks classified as high, moderate or low and analysis of the project's likelihood of achieving its objectives
Risk response	Risk response plan, including one or more of the following: residual risks, secondary risks, change control, contingency reserve (time or budget) and inputs to a revised project plan
Risk monitoring and control	Workaround plans, corrective actions, project change requests and updates to the risk response plan and to risk identification checklists for future projects

Table 2Risk management process

D. Establishment and management of project contingency provisions

40. The Office of Central Support Services has established guidelines for the establishment and management of project contingency provisions within a project budget on the basis of industry best practice, recommendations by the Board of Auditors, recent resolutions of the General Assembly and lessons learned from capital projects undertaken by the Secretariat.

41. In sections IX and X of its resolution 70/248, on the construction at ECA in Addis Ababa and the strategic heritage plan of the United Nations Office at Geneva, respectively, the General Assembly emphasized that contingency provisions approved for construction projects served to provide necessary safeguards against unforeseen cost overruns during project implementation, underlined that the estimation of project contingencies should be based on the identification of risks associated with the different phases of the project, and requested that the estimated contingencies be separated from the base project cost for presentation purposes only. The Assembly also decided that unused contingency provisions could be carried over to subsequent years and reallocated as new risks emerged and older risks were retired, consistent with industry best practice, and that all remaining unused contingency funds shall be returned to Member States at the conclusion of the project.

42. The quantitative risk analysis described above should be used to establish the amount of contingency provisions to be budgeted for a large-scale project. The stage of implementation during which a qualitative analysis is required is after the initial planning phases, at the beginning of the design phase when sufficient design and cost estimating information is available and prior to the approval of overall project funding. Prior to that stage, a deterministic approach may be used, meaning that a straight percentage may be applied to the base estimate, when adequate design and cost estimating information is not yet available and when an accurate understanding of both the impact and likelihood of risks is not yet known, as is common in the industry.

43. The use and management of contingency provisions should be formally documented and formally controlled through a structured procedure that includes contingency expenditure authorization, ongoing monitoring and reporting. Appropriate delegations of authority for the approval of the use of contingency provisions should be established. Ongoing evaluation and assessment on the usage of contingency provisions should also be performed on actual contingency expenditure versus remaining contingency provisions for each reporting period, for the duration of the project.

IV. Updated capital maintenance programme

A. Progress made since the previous report

44. Since the previous report, the centralized database of projects has been finalized and staff training at Headquarters and offices away from Headquarters and regional commissions was completed in May 2015 in the context of the annual meeting of facilities managers. Although this marked the formal completion of the initial strategic capital review, the review and the database will be continuously updated as project priorities evolve and as new business transformation initiatives, organizational policies and mandates emerge.

45. Additionally, projects that comprised what is referred to in IPSAS terminology as "assets under construction", that is, construction projects that span more than one financial period, have been successfully input into Umoja and are currently being managed by the requisite local project teams in Umoja. The Overseas Properties Management Unit at Headquarters has the ability to monitor these projects in Umoja, which affords greater clarity and consistency to all internal project constituents when determining the level of completion of a given project.

B. Updated list of near-term capital projects

46. In line with resolution 69/274 A, in which the General Assembly stressed that the development of a long-term capital programme should include within its scope a prioritization strategy, the Secretariat confirms that the projects initially proposed were prioritized in accordance with needs-based assessments. Figure 1 in the previous report presented a list of near-term capital expenditure projects and other projects for the period 2013-2027 and categorized them according to one of three primary objectives:

(a) Life safety: to meet industry norms related to health and safety issues, including earthquake (structural) remediation and fire safety;

(b) Modernization and maintenance of property value: to modernize outdated major building systems in order to meet industry norms and to replace buildings according to a life cycle approach in order to maintain property value;

(c) Programmatic objectives: to respond to changing client needs.

47. The projects were listed in order of priority, while also taking into consideration organizational capacity limitations, both at Headquarters and offices away from Headquarters. However, upon further consideration, the Secretariat, after

consultation with the United Nations Office at Nairobi, considers that two projects, the expansion and modernization of the conference facilities at Nairobi (referred to as project "conference east" and project "conference west" in figure 1 of the previous report), may no longer be considered as a priority, though they may be taken up again in the future. All of the other projects remain priorities for the Organization.

48. Additionally, the list as presented in the previous report did not clearly identify the total projected cost estimates for each of the projects identified, given that the scope of the report was from 2018 to 2037, i.e., the table did not include the projected requirements of the biennium 2016-2017, including necessary pre-planning and design activities for several of the projects. In its resolution 70/247, the General Assembly approved resources included in the proposed programme budget of the Secretary-General for the biennium 2016-2017 that were directly related to the projects included in the initial strategic capital review.

49. In order to provide the General Assembly with a more complete understanding of the total requirements, the requirements for the biennium 2016-2017 have now been updated (see table 3).

Table 3

Sequencing of near-term capital projects and other construction works Projected timeline and capital requirements for the period 2015-2027

(In millions of United States dollars)

Project	Requirements	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
1. Approved and ongoing capital projects														
Headquarters — capital master plan	2 309.1	• •		1										
United Nations Office at Geneva — strategic heritage plan	836.5 ^a													
International Residual Mechanism for Criminal Tribunals, Arusha, United Republic of Tanzania — new construction	8.8													
Economic and Social Commission for Western Asia — United Nations premises, blast mitigation	5.7													
Economic Commission for Africa — Africa Hall renovation	56.9													
2. Long-term accommodation needs									N					
Headquarters — long-term accommodation needs									~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					
Estimated cost	To be determined													
3. Anticipated near-term capital projects														
3.1 Life safety objectives														
Economic and Social Commission for Asia and the Pacific — secretariat tower				b		///			///	///	///			Ż
Estimated cost	35.1		0.4	8.6	5.	5	5.	9	4.	6	5.	1	5.1	
Economic Commission for Africa — old office building]			///					
Estimated cost	13.7			с			3.	1	5.	3	5.	3		
3.2 Modernization objectives														
United Nations Office at Nairobi — blocks A-J							///	UZ)						
Estimated cost	44.1		0.	.6	21		21.							
United Nations Office at Nairobi — site infrastructure												Œ,		
Estimated cost	18.8		i -		3.	1	4.	2	5.	4	6.	1		
Economic Commission for Latin America and the Caribbean — north building		·	.J				///							
Estimated cost	7.1		0.	05	1.	6	5.	5						
3.3 Programmatic objectives														
Economic Commission for Africa — cafeteria and library	10 -			T							v.			
Estimated cost	12.5	1	0.	.4	2.	3	4.	/	2.	5	2.	5		
Estimated cost of anticipated projects			1.	.4	34	.3	45.	.1	12	.4	19.	.0	5.1	
4. Ongoing construction, alteration, improvement and maj maintenance projects (section 33 of the programme budget)	or													
Estimated cost			1	be mined	76	.5	74.	.9	77	.8	89.	.7	111	2
Estimated total capital maintenance requirements			1		110).8	120	0.0	90	.2	108	8.7	116	3

Legend:

Planning and design phases

Construction phase

Post-completion activities

Implementation phase of projects not yet approved

Planning phases of projects not yet approved

Notes:

^{*a*} Requirements for the strategic heritage plan are in Swiss francs.

^b Economic and Social Commission for Asia and the Pacific \$8.6 million (remainder of initially proposed \$9.0 million) only reflected as a place holder; the actual amount will be determined in the upcoming detailed study due to be submitted to the General Assembly at its seventy-first session.

^c Preliminary design fees for the old office building are included with cafeteria/library fees for the biennium 2016-2017.

50. A summary of the proposed projects listed above is given below.

United Nations Office at Nairobi — replacement of office blocks A to J

51. As indicated in paragraph 34 of the previous report of the Secretary-General, the preliminary plan would be to replace prefabricated blocks A to J. This is recommended because the blocks were constructed as temporary facilities in 1974 and are now 40 years old, have exceeded their useful life and are in urgent need of replacement. The aim is to create a more modern, flexible and efficient workspace environment to accommodate an increased number of staff on the compound and to comply with all local and international building regulations.

52. In the biennium 2016-2017, the United Nations Office at Nairobi will undertake a feasibility study and an initial project scope review, including structural, seismic and detailed space usage studies. In addition, the Office intends to initiate a flexible workplace strategy pilot, the findings of which will be reported to the General Assembly and incorporated into the final proposed design of the buildings. The total estimated cost of the project has been updated to include design fees, which were not included in the previous estimate.

United Nations Office at Nairobi — campus-wide infrastructure upgrades and improvements

53. It is proposed to implement campus-wide infrastructure upgrades in order to address existing health and safety issues and non-compliance with local and international regulations and to achieve better energy efficiencies as well as compliance with accessibility standards when performing renovation works. These upgrades include:

(a) Energy infrastructure: main electrical supply, backup generator electrical supply, power redundancy link between main switchgear rooms and upgrading host country authority incoming supply and photovoltaic installations, among others;

(b) Water management infrastructure: upgrades to potable supply, storage tanks, booster pumps, pressurized ring mains and fire suppression storage tanks and distribution systems, among others;

(c) Waste management infrastructure: new septic tank and treatment plant and sewage network for old blocks, rehabilitation of existing campus-wide oxidation ponds and wetlands, among others;

(d) Transport infrastructure (parking and site access): new secondary security access road, replacement of western area parking and new additional floor in the eastern car park;

(e) Fire detection and alarm remedial improvements: test, replace and supplement as necessary fire detectors in all buildings, emergency lighting with battery backup to all blocks, emergency exit signage to buildings campus-wide, additional hose reels to blocks M to X, among others.

Economic Commission for Latin America and the Caribbean — north building refurbishment

54. Also as indicated in the previous report, the north building, which was originally conceived as a temporary building, was built in 1989. Given the age of

the building and the fact that it was intended to be temporary, maintenance costs are high and remodelling will be costly. The recommended action is, therefore, to execute a complete building refurbishment, retaining the main structure, fireproofing the building and replacing the roof, facade and interior finishes. In addition, ECLAC intends to initiate flexible workplace strategies in the building.

55. In the biennium 2016-2017, ECLAC will perform a feasibility study and an initial scope review, including structural, seismic and detailed space usage studies. It should be noted that the proposal for the functional retrofitting of interior space in the printing building during the biennium 2016-2017 would also support the future north building refurbishment because the printing building could then serve as swing space during the construction.

Economic Commission for Africa — old office, library and cafeteria buildings

56. As indicated in the previous report, the proposed renovation of the library and cafeteria would include structural reinforcement, remodelling of the kitchen, upgrades to the facades, upgraded interiors and elevators, energy efficiency initiatives, replacement of water pipelines, upgrade of the mechanical and electrical systems and renovation of the sewage system. Because the buildings serve programmatic functions that are not primarily office or conference space, this project is categorized as "programmatic requirements" and not "life safety", though the buildings do require structural and mechanical work to make them comply with prevailing life safety/building codes.

57. In the biennium 2016-2017, ECA would examine the exterior and structure of the old office, library and cafeteria buildings and design the library and cafeteria complex. The resources would also provide for an evaluation of the swing space needs for the preliminarily planned projects. The overall proposal under the strategic capital review would ensure the achievement of an adequate long-term solution for all of the buildings on the west side of the campus, following the renovation of Africa Hall and the subsequent proposed renovation of the old office, library and cafeteria buildings. The total estimated cost of the project has been updated to include design fees and contingency, which were not included in the previous estimate.

V. Other considerations

A. Accessibility

58. The General Assembly, in its resolution 70/170 on the full realization of an inclusive and accessible United Nations for persons with disabilities, requested the Secretary-General to submit at its seventy-first session a comprehensive report on the status and application of existing regulations relating to reasonable accommodation and the status of facilities and services relating thereto and areas that needed improvement to ensure full accessibility, following universal design, and reasonable accommodation within the United Nations system, including its agencies, funds and programmes, and regional offices.

59. Given that accessibility is one of the key objectives of the strategic capital review, the Secretariat, in the first stage of the review, had determined which prevailing international and local accessibility codes apply to each of the eight primary locations within the scope of the review; these are shown in annex II.

60. Each of the projects proposed under the review includes an accessibility aspect and one of the main objectives of each renovation project is to bring existing buildings up to minimum code requirements. Additionally, the Secretariat intends to go beyond minimum requirements and aspires to follow international best practice in the area of universal design and reasonable accommodation in the projects.

61. Representatives of the Office of Central Support services are actively involved in the Inter-Departmental Task Force on Accessibility, which aims to establish applicable best practices at the United Nations. The Office will also provide input to the forthcoming report, will await relevant decisions from the General Assembly and be prepared to incorporate them into future reports on the strategic capital review.

B. Long-term accommodation needs at offices away from Headquarters

62. In section VII, on the long-term accommodation needs at United Nations Headquarters for the period from 2014 to 2034, of its resolution 69/262, the General Assembly requested the Secretary-General to include, as appropriate and within the scope of his reports on the strategic capital review and the global service delivery model, information concerning long-term accommodation needs for United Nations offices away from the Headquarters, including in Geneva, Nairobi and Vienna and for the regional commissions.

63. A summary of the present staffing levels at those duty stations is given in table 4.

Duty station	Staff (Secretariat only)	Number of owned buildings	Secretariat staff in owned buildings	Number of leased buildings	Number of Secretariat staff in leased buildings	Total staff accommodated in United Nations Secretariat-owned and leased building ^a
Headquarters	8 500	9	4 800	8	3 700	8 850
United Nations Office at Geneva	3 500	33	2 800	2	700	3 500
United Nations Office at Vienna ^b	1 160	17	1 140	1	20	6 000
United Nations Office at Nairobi	1 000	39	1 000	0	0	3 500
Economic Commission for Africa	1 480	20	1 410	8	70	2 650
Economic Commission for Latin America and the Caribbean	850	9	670	7	180	850
Economic and Social Commission for Asia and the Pacific	900	3	900	9	n/a	2 000
Economic and Social Commission for Western Asia ^b	450	2	450	0	0	450
Total	17 840	132	13 170	35	4 670	27 800

Table 4Staffing levels at Headquarters and offices away from Headquarters

^a Includes specialized agencies, funds and programmes, as well as United Nations-affiliated entities.
 ^b The United Nations Office at Vienna and the Economic and Social Commission for Western Asia are housed in donated right-to-use facilities; they are shown in the "owned" column for presentation purposes only, to distinguish them from commercial leases.

64. Only the Offices in New York and Geneva have large numbers of Secretariat staff located in leased space, whereas the comparatively small numbers of staff in leased spaces at the regional commissions are located exclusively in subregional offices. The long-term accommodation requirements of the Secretariat staff in New York are being addressed in the context of the long-term accommodation study, as per the most recent report of the Secretary-General on the subject (A/70/398). The long-term accommodation requirements of the Secretariat staff in Geneva are being addressed in the context of the Secretariat staff in Geneva are being addressed in the context of the strategic heritage plan, through which the 700 staff of the Office of the United Nations High Commissioner for Human Rights currently located in leased space will be housed within the UNOG complex, as per the most recent report of the Secretary-General on the subject (A/70/394 and Corr.1).

65. Accordingly, the scope of the strategic capital review has, to date, focused primarily on the maintenance of existing owned assets that house Secretariat staff and has not included any concerted efforts on the part of the Secretariat to attract additional specialized agencies, funds and programmes to be housed within existing owned United Nations facilities. Should the General Assembly instruct the Secretary-General to consider the requirements of specialized agencies, funds and programmes in the scope of the strategic capital review, updates on the same could be included in future reports.

66. In its resolution 70/248, the General Assembly requested the Secretary-General to report on the development of a global service delivery model at the main part of its seventy-first session, taking into account lessons learned and best practices of all ongoing business transformation initiatives and the use of all existing United Nations infrastructure, including that away from Headquarters.

C. Flexible workplace strategies

67. The Secretary-General will submit a progress report on the implementation of flexible workplace strategies in New York at the first part of the resumed seventieth session of the General Assembly.

68. In addition to progress in New York, the report explains that, as a next step, the Secretariat aims to continue to provide support to the United Nations Office at Geneva in incorporating flexible workplace strategies into the strategic heritage plan and to other interested offices; these include the United Nations Office at Nairobi, ECLAC in Santiago and ESCAP in Bangkok, as described in the present report.

69. Future reports on the strategic capital review will respond to any outcomes of the implementation of Umoja, flexible workplace strategies and the global service delivery model, should they result in significant changes in staffing levels and/or the total number of assigned seats at the duty stations included in the strategic capital review as compared with existing conditions. In the meantime, however, the Secretary-General considers that it is prudent practice for the management and stewardship of the real estate assets of the Organization to proactively pursue a capital maintenance programme for these assets, which, more important than maintaining property value, are necessary to ensure the ongoing safety of its delegates, staff and visitors.

70. Moreover, given that the projects proposed under the strategic capital review aim to provide the Organization with more modern and flexible work environments, and that such environments would only support other ongoing business transformations, the Secretary-General considers that such projects should be prioritized accordingly.

D. Budgeting and funding mechanisms

71. The primary aim of the initial strategic capital review is to accurately estimate and predict capital requirements and to be used primarily as a planning document. The review also proposed, secondarily, to present possible funding alternatives for consideration by Member States, with the aim of identifying mechanisms that better reflect the multi-year nature of capital projects. One option that was proposed for further examination was the creation of a separate multi-year capital reserve fund, separate from the biennial programme budget resources approved under major maintenance, alterations and improvements, to cover capital investment in fixed assets.

72. Additionally, in 2008, the United Nations System Chief Executives Board for Coordination conducted a survey of the capital budget structure and funding of various United Nations and affiliated organizations. Most of the organizations had policies in place regarding capital budgeting; several organizations linked the levels of funding with an overall asset management programme, such as tracking asset depreciation levels and scheduling replacement, or establishing a stated goal of linking funding levels with overall asset value. Several organizations established dedicated capital funds and used multiple income sources to replenish the funds.

73. However, in view of the fact that the General Assembly, in its resolution 69/274 A, recalled its resolution 68/247 B and reaffirmed that any potential proposals stemming from the strategic capital review with budgetary implications should follow the procedure set out in the Financial Regulations and Rules of the United Nations, the Secretary-General is no longer pursuing, at this stage, the option of establishing a separate capital reserve fund. Subject to additional guidance from the Assembly further to its consideration of the present report, more information may be provided on possible funding mechanisms in future reports.

74. In addition to further considering the merits of the above, the Secretariat is also guided by recent resolutions of the General Assembly on various capital projects, including section IX of resolution 70/248 on the Africa Hall project, section X on the strategic heritage plan and section XII on the proposed seismic mitigation project at ESCAP. In that resolution, the Assembly encouraged the Secretary-General to seek voluntary contributions and other possible alternative funding mechanisms and also noted the important roles played by host countries.

VI. Recommended actions to be taken by the General Assembly

- 75. It is recommended that the General Assembly:
 - (a) Take note of the present report;

(b) Request the Secretary-General to submit an updated report on the long-term capital maintenance programme (2018-2037) at the main part of the seventy-second session.

Annex I

Roles and responsibilities matrix: reference project governance structure

General Assembly	_	• Authorizes an investment and the business case				
lso known as: Investment decision		• Authorizes the project owner and approves the required resources				
maker		 Authorizes changes and modifications beyond authorized limits 				
Client						
Employer						
Project sponsor						
roject auditing	Related role of the United	• Assures the client/owner that specified business				
lso known as:	Nations system:	needs of the organization are satisfied through th project and that the project is executed efficiently				
Quality assurance	Board of Auditors	in compliance with organizational rules and				
Investigation group	• Office of Internal Oversight Services (OIOS)	regulations				
Auditor	Reports to:	• Assures the client/owner that the contracts are administered in compliance with their terms and				
	General Assembly	conditions				
	• Secretary-General (respectively)	• Evaluates the project performance/ implementation by means of executing audits, investigations and inspections				
	× 1 2/	• Provides independent information about the project and its progress to the client/owner				
roject owner	Related role of the United	• Personally accountable for the project's success				
lso known as:	Nations system: • Under-Secretary-General	• Acts as interface between client and the project				
Programme manager		• Selects and appoints the project executive and				
Programme director	Assistant Secretary-General	independent advisers to provide knowledge and				
Senior responsible owner	• Other	expertise as required (e.g., management of risks, budget, benefits, etc.)				
	Nominated by:	• Sets tolerances on project constraints for decision				
	• Secretary-General; approved by General Assembly	making by project executive (costs, time, scope, quality, risks, benefits)				
	Reports to:	• Provides the resources for successful project execution				
	General Assembly	• Establishes the programme governance structure				
	• Secretary-General, Under-Secretary-General,	• Ensures that business needs are clear and protected				
	Assistant Secretary-General	• Oversees and protects the business case and budget				

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Role	General information	Main responsibilities
		 Advises and reports on progress, issues, exceptions and risks
		• Approves exceptions, changes and modifications in line with delegated authorities
		• Authorizes the design, recommendations on escalated issues and risks, changes and modifications beyond authorized limits and project closure and takes over ownership of the project product(s)
Project oversight	Related role of the United Nations system:	 Provides delegated oversight, advisory and support services for the project owner
 Steering committee 	• Senior officials from various United Nations departments and offices	• Supports the decision-making process by providing advice, guidance and organization technical knowledge and expertise; ensures
	Office of Central Support Services	the project governance structure satisfies the needs of both the Organization and the project
	Nominated by:	• Ensures that organizational strategies, rules and regulations are incorporated into the managerial
	• Project owner	framework of the project
	Reports to:	• Ensures that project constraints (cost, time, quality, scope, risk, benefits) do not exceed
	• Project owner	authorized limits and that the project develops in accordance with set milestones
		• Ensures the appropriate implementation of communication and stakeholder information strategies
		• Ensures that the project delivers a product that first intended purpose, delivers the expected benefits and meets the defined objectives of the business case
		• Reports to the project owner on the overall project progress as well as on escalated issues and exceptions

Role	General information	Main responsibilities
Independent risk management	Related role of the United Nations system:	• A function of project oversight that is outsourced to ensure independence
	• External to the United Nations Nominated by:	• Assesses risks and provides the owner/executive with a second opinion that is independent from the project and evaluates the possible financial impact of such risks
	 Project owner Reports to: Project owner 	 Assesses risks and issues that were escalated by the project executive and makes recommendations to the project owner on how to respond to such issues and risks Assists in providing assurance to the project owner that possible impacts of project risks do no
		exceed authorized limits (costs, time, quality, scope, benefits)
Project executive Also known as:	Related role of the United Nations system:	• Acts as interface between project owner and the project
• Project sponsor	 Qualified individual 	• Supports the project owner
	Nominated by: • Project owner Reports to: • Project owner	• Responsible for project delivery; approves the actions to be taken by the project manager
• Client's representative		• Selects and appoints the project manager
• Owner's representative		• Coordinates and directs user inputs to minimize major risks (e.g., acceptance disputes, uncontrolled change, etc.) and to meet business needs
		• Makes decisions within delegated authorities and directs the project towards success
		• Establishes the project organizational structure and approves the project team
		• Develops and protects the business case
		• Delegates tolerances for managing project constraints to the project manager (costs, time, scope, quality, risks, benefits)
		• Approves the resources needed for a successful project
		• Oversees the development of the business case, strategic brief, project execution plan, project brief and the benefits review plan (baseline for before-after comparison)
		• Focuses on the realization of benefits
		• Ensures provision of input from champions and users during the design development

		• Approves the design
		• Approves actions of the project manager
		• Approves exceptions, changes and modifications
		• Ensures that the project delivers the intended quality outcomes in line with applicable rules, regulations and the contract
		 Advises and reports on progress, issues, exceptions and risks
		• Confirms acceptance of all project products
		Authorizes project closure
Project assurance	Related role of the United Nations system:	• Provides assurance for the project executive that the project management strategy and its
	• Qualified individual(s)	implementation are in accordance with organizational rules, regulations and standards
	Nominated by:	• Provides assurance for the project executive and
	 Project executive and/or 	user(s) that the project management strategy is fi for delivering project outcomes meeting user
	• User(s)	(customer) requirements and intended benefits
	Reports to: • Project executive	• Provides assurance that the project constraints (costs, time, scope, quality, risks, benefits) are being managed appropriately
		• Provides assurance that good communication and liaising between the owner, executive and users established and maintained throughout the project
		• Ensures that the right people participate in the project and that project staff is properly trained
		• Provides assistance for the project manager when planning, developing, monitoring and controlling the project execution to ensure compliance with organizational strategies, rules and regulations
End users	Related role of the United	• Ongoing involvement until the tendering phase
Also known as:	Nations system:	starting as early as possible; responsible for confirming the realization of benefits
• Champions	• Information technology	• Defines the vision for the individual project need
 Senior stakeholders (internal) 	SecurityConference services	(e.g., information technology, security, etc.)
Users	Public information	• Defines the needs and quality expectations of those who will use the product
0.0010	Commercial activities	 Assesses and confirms the viability of the projection
	Sustainability	approach

Role	General information	Main responsibilities				
	Facility managementOthers	• Ensures a clear description of quality expectations in briefing documents (business case, quality management strategy, strategic brief and project brief, concept design, detailed design, technical				
	Nominated by:	design)				
 Project owner Reports to: Project owner and/or 	• Defines criteria against which the finished products and benefits will be assessed					
	• Ensures that the delivered design quality is in					
	•	compliance with requirements				
	• Project executive	• Ensures that the project output meets the quality expectations				
		• Selects and appoints users, chairs relevant user panels				
		• Reviews and approves design schemes				
		• Delivers functional input to the design development (but not the design itself) on an ongoing basis				
		• Involved in the development of quality expectations				
	• Reviews and comments on design schemes					
Project manager Also known as:	Related role of the United Nations system:	• Responsible for the delivery of the project on a daily basis on behalf of the project executive				
Client's representative	 Qualified individual Nominated by: Project executive Reports to: 	• Ensures that the project produces the required products within specified tolerances of time, cost,				
• Owner's representative		quality, scope, risks and benefits by implementing appropriate project controls				
		• Obtains approvals and acceptances from the project executive				
	• Project executive	• Assists the project executive in establishing the project governance structure				
		• Creates the team structure for the project and clearly defines the required roles and responsibilities; selects the members of the project team				
		• Advises in the selection of consultants and contractor(s)				
		• Assists the project executive in the preparation and maintenance of the business case, strategic brief, project execution plan, project brief and the benefits review plan (establishing the baseline for the before-after comparison)				
		• Participates in the design development				

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Role	General information	Main responsibilities	
		• Develops execution plans for the various project phases and stages	
		• Advises and reports to the project executive on progress, issues, exceptions and risks	
		• Nominates, leads and motivates the project team	
		• Is responsible for the product delivery; develops work packages in cooperation with team managers	
		• Authorizes consultants, contractors and suppliers in the implementation of work packages and ensures their appropriate implementation within delegated constraints (costs, time, scope, quality, risks, benefits)	
		• Validates and approves payment requests	
Project supportRelated role of the United Nations system:Also known as:• General administration • Document control	• Project support is the responsibility of the proj manager who can assign support functions to		
	 General administration 	various individuals (but the project manager remains accountable for them). This could inc	
	• Document control	the following:	
	 Contract administration 	- General administration	
	 Quality control Scheduling services Procurement services Risk management Legal advisory Nominated by: 	 Contract administration 	
		- Tracking and observing project controls	
		(cost, time, quality, scope, risks, budget)	
		 Scheduling services 	
		 Procurement coordination 	
		 Legal advisory 	
	 Project executive and/or 	• Establishes and maintains project files	
	Project executive and/orProject manager	• Establishes and maintains document control procedures	
	Reports to:	• Updates schedules and plans	
	Project manager	• Collects and provides data, information and forecasts	
		Administers meetings	
		• Maintains records and forecasts	

Role	General information	Main responsibilities
Integrated risk management	Related role of the United Nations system:	• Assesses risks, financially evaluates these risks, and provides mitigation strategies to support the
	• Qualified individual(s)	project manager in the decision-making process
	• Consultant	• Develops strategies and recommendations for issues and risks that might impact the project
	Nominated by: • Project manager Reports to:	beyond authorized limits and tolerances (costs, time, quality, scope, benefits)
		• Assesses the development of the project in
		relation to risk management
	Project manager	• Performs qualitative and quantitative risk analyses, makes recommendations with respect to requisite contingency provision levels
		• Assists in forecasting cost and time to completion

Annex II

Accessibility standards and guidelines at the locations within the scope of the strategic capital review

The following is a list of prevailing local standards in force at the locations within the scope of the strategic capital review.

Economic Commission for Africa

• Guideline: Relevant British Standards and Codes of Practice

Economic Commission for Latin America and the Caribbean

- D.S. 47. General Ordinance of the General Law on Urban Planning and Buildings, article 2.2.8 and paragraph 4 of article 4.1.7 on facilitating access by persons with disabilities
- NCh 2077 or 2000. Building construction Needs of disabled people in buildings Design guidelines
- Guideline: European Concept for Accessibility

Economic and Social Commission for Asia and the Pacific

- ESCAP guideline: Promotion of Non-handicapping Physical Environments for Disabled Persons
- Guideline: United States Americans with Disabilities Act Standards for Accessible Design

Economic and Social Commission for Western Asia

• Accessibility for the Disabled — A Design Manual for a Barrier Free Environment

United Nations Office at Nairobi

- Local authority by-laws
- Kenya Building Code
- Relevant British Standards and Codes of Practice

United Nations Office at Geneva

• SIA 500:2009 Constructions without obstacles

Headquarters

• United States Americans with Disabilities Act Standards for Accessible Design