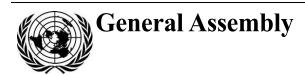
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Capital investment planning

Report of the Secretary-General

Summary

The present report on capital investment planning is submitted pursuant to General Assembly resolution 76/245, in which the Assembly endorsed several recommendations of the Advisory Committee on Administrative and Budgetary Questions in its first report on the proposed programme budget for 2022 (A/76/7).

The General Assembly has requested comprehensive and detailed information on information and communications technology (ICT) spending globally across the Secretariat, including ICT capital expenditures and a capital investment plan, investments to support new modalities of work, upgrades and enhancements to the standardized access control systems for physical security, a comprehensive action plan for dealing with cybersecurity, ongoing and planned projects to improve the accessibility of premises, and investments in conference facilities to deal with changes introduced owing to the impact of the coronavirus disease (COVID-19) pandemic.

Building on aspects of the previous report of the Secretary-General on capital investment planning (A/77/519), section III contains the results of five detailed assessments conducted since the previous report covering: (a) conferencing systems at Headquarters; (b) safety and security needs at Headquarters, offices away from Headquarters and regional commissions; (c) renovation of buildings and facilities at the Economic Commission for Latin America and the Caribbean (ECLAC), including the auditorium, at the Santiago compound; (d) renovation of the Economic Commission for Africa (ECA) Addis Ababa compound; and (e) renovation of the United Nations House in Jerusalem. These assessments are designed to provide, for informational purposes only, a preliminary estimate of capital investments needed over a period of multiple years and indicate some of the factors that may influence the choice of scope and timing of implementation.





Section IV contains a summary of the annual projected outlays taking into account current construction projects and the investment projects included in the present report, to inform the General Assembly of a potential approach to stable funding under section 33 at levels comparable to the current levels of spending for construction projects, and a request for guidance from the Assembly on the submission of future resource requirements in relation to these investment projects.

The General Assembly is requested to take note of the report.

I. Introduction

- 1. In its resolution 76/245, the General Assembly endorsed several recommendations of the Advisory Committee on Administrative and Budgetary Questions requesting comprehensive information on information and communications technology (ICT) spending globally across the Secretariat, including ICT capital expenditures and investments to deal with new modalities of work, a capital investment plan for ICT and a comprehensive action plan relating to cybersecurity. The Assembly also endorsed the Advisory Committee's recommendations requesting consolidated information on upgrades and enhancements relating to standardized access control for physical security, investments relating to conference facilities and ongoing and planned projects to improve the accessibility of premises.
- 2. The present report builds on the previous report of the Secretary-General on capital investment planning (A/77/519), through detailed assessments covering five specific areas of investments. These relate to: (a) conferencing systems at Headquarters; (b) safety and security needs at Headquarters, offices away from Headquarters and the regional commissions; (c) renovation of buildings and facilities at the Economic Commission for Latin America and the Caribbean (ECLAC), including the auditorium, at the Santiago compound; (d) renovation of the Economic Commission for Africa (ECA) Addis Ababa compound; and (e) renovation of United Nations House in Jerusalem.

II. Methodology for assessing capital investment needs

- 3. At the request of the General Assembly in 2009, a strategic capital review exercise was initiated to assess the investment requirements for buildings and facilities across the established offices of the Secretariat. Through reports A/65/351, A/68/733, A/69/760, A/70/697 and A/72/393, the Assembly was informed of these assessments conducted during the period 2010–2017.
- 4. Following the strategic capital reviews, the General Assembly has requested that reports on expenditure and investment proposals provide holistic, consolidated and transparent information on every component, interlinking ongoing projects and future investment plans with the related expenditure and budget information, along with justification highlighting the expected efficiency gains and benefits, to allow for effective deliberations by the Assembly.
- 5. In response to the requests of the General Assembly, the Secretariat initiated a programme of work in 2022 to systematically identify and assess capital investment requirements across the Secretariat with an integrated scope and a mid- to long-term time frame. The initial scope was limited to United Nations Headquarters, offices away from Headquarters and four regional commissions, with a focus on four areas that have high potential for capital investments, namely, buildings and facilities, safety and security, ICT and conferencing. In addition to review of these four areas, the assessment also factored in cross-implementation requirements derived from mandates prescribed by the Assembly in respect of sustainability, accessibility, business continuity, well-being, health care and standardization.
- 6. The assessment had three objectives: (a) to complete an initial identification of investment requirements across the eight headquarters locations through a holistic scope and a long-term vision, building on the lessons learned from the strategic capital review; (b) to establish a periodic and consistent approach for the systematic identification of capital investment requirements holistically across the Secretariat, complementing the current budget processes in order to facilitate predictable financing of such investments, taking into account cash flows and budget cycles; and

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- (c) to establish a recurring programme of work for periodic reporting to the General Assembly on capital investments, building on the lessons learned and baselines drawn up in the current exercise.
- 7. The establishment of a consistent approach for identification of requirements was guided significantly by the lessons learned from the strategic capital review, specifically section B of the report of the Secretary-General on that topic (A/68/733), on key objectives of the global capital maintenance programme, in view of historical expenditure patterns across areas to guide the development of the approach.
- 8. As set out in his report on the strategic capital review (A/70/697), which discontinued the "run-to-failure" approach for investments as inherently risky and costlier, the Secretary-General started the capital investment planning programme of work in 2022 to: (a) transition capital investments into an integrated, global and long-term planning model; (b) to enhance standardization wherever feasible, to determine prioritization based on risk and depreciation levels across locations and areas; and (c) use a holistic scope and integrated plans to derive credible resource estimates that take into account feasible implementation schedules.
- 9. In his report on the strategic capital review (A/68/733), the Secretary-General confirmed the objectives of the capital investment policy, which remain unchanged: to meet health and safety standards; to comply with local codes, including concerning architectural design, risk mitigation and disaster preparedness; to restore and maintain the value of assets and premises; to modernize systemic capabilities for resilience and business continuity; to improve space efficiency, including with flexible space planning; to improve accessibility; and to mainstream sustainability across operations, including in respect of renewables and reduced levels of consumption and waste.
- 10. The cost estimates identified during the 2022 capital investment planning exercise for the major investment projects included in the present report were vetted anew through verifications and by reference to expenditure patterns across areas for past and ongoing investment projects, adjusted using current pricing catalogues. In addition, based on industry best practices for the budgeting and control of large investment projects on a multi-year implementation schedule, two factors for cost escalation and contingency were researched, pointing tentatively to: (a) a cost escalation index of 9.1 per cent, to cover inflation and possible additional price increases; and (b) a 5 per cent contingency to cover unforeseen expenses.
- 11. To benchmark the application of escalation and contingency indexing to mitigate the risk of cost underestimation, five reference sources were used: the International Monetary Fund (IMF) World Economic Outlook database; ¹ the joint International Labour Organization (ILO), IMF, Organisation for Economic Co-operation and Development (OECD), European Union, United Nations and World Bank handbook on price indexing; ² the Trading Economics website, ³ widely used by international companies implementing large-scale construction projects; the World Bank Infrastructure investment framework; ⁴ and the project finance methodology of the United States Federal Highways Administration, ⁵ whereby a 16 per cent index is applied to the annual estimates for project implementation to cover both escalation and contingency requirements. Opportunities to further expand the research base can

¹ https://www.imf.org/en/Publications/WEO/weo-database/2023/October.

² ILO, IMF, European Union, OECD, United Nations and World Bank, Consumer Price Index Manual: Concepts and Methods (Washington, D.C., 2020).

³ https://tradingeconomics.com/.

⁴ World Bank, *Infrastructure Governance: Assessment Framework December 2020* (Washington, D.C., 2021).

 $^{^{5}\} www.fhwa.dot.gov/majorprojects/financial_plans/contingency_fund.cfm.$

be explored in the future, before they form the basis for decision-making by the General Assembly.

III. Investment projects based on 2023 assessments

A. Modernization of conferencing systems at United Nations Headquarters

- 12. As indicated in the proposed programme budget for 2024 (A/78/6 (Sect. 33)), the recent instances of malfunction and failure across conferencing operations at United Nations Headquarters in New York necessitated an urgent assessment of the state of the systems supporting the operation and other underlying causes.
- 13. Early in 2023, an emergency review was undertaken to better understand the issues that would need to be addressed. It may be recalled that conferencing, globally, had been identified in the 2022 assessment of capital investments as one of the areas of interest. The key findings of the 2023 review were:
- (a) The average age of the equipment and systems will be 14 years old by 2025, which in most cases would be double the industry standard of 7 years for conferencing and broadcasting operations;
 - (b) Critical hardware and systems have been out of vendor support since 2020;
- (c) There is limited ability to perform automated diagnostics, integrated synchronization and effective monitoring controls to support the operation.
- 14. In terms of scope and scale, the assessment confirmed that the upgrade would need to cover all equipment and systems across 18 conference rooms and 6 main engineering rooms supporting the entire operation in the Conference building. The 18 conference rooms include the 12 numbered conference rooms (CR-1 to CR-12), five chambers (General Assembly Hall, Trusteeship Council Chamber, Economic and Social Council Chamber, Security Council Chamber and Security Council Consultations Room) and the Press Briefing Room. The six engineering rooms supporting the entire conferencing operation are the Master Control room, the Integrated Broadcast Equipment room, the Video Network operations room, the Conference Control room, the Conferencing Broadcasting studio and the Media Operations room. Conference rooms A–D and other smaller meeting rooms are not in the scope of this upgrade plan owing to the absence, currently, of comparable systems in those rooms, although their inclusion in the future need not be ruled out.
- 15. The project to comprehensively upgrade the conferencing infrastructure and hardware equipment at Headquarters has four main objectives: (a) replace broken and obsolete equipment to ensure and enhance performance; (b) standardize the conferencing set-up across all conference rooms at Headquarters; (c) enhance capabilities for remote participation, combining different services, quality control and diagnostics across all systems and equipment; and (d) establish a model for future conferencing upgrades across the Secretariat, noting the mandate of the General Assembly to assure comparable standards of service across duty stations, and in time for the new Nairobi conference centre and the future modernization of ECLAC and ECA conference rooms when major investment projects are undertaken in those two regional commissions.
- 16. The detailed assessment undertaken in early 2023 has resulted in the identification of 250 projects under the following seven broad categories:
- (a) Congress microphone and simultaneous interpretation. This concerns the replacement of the suite of systems and equipment with the associated

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infrastructure supporting the amplification and distribution of audiovisual signals within and from conference rooms. The congress microphone and simultaneous interpretation suite manages seating arrangements of delegates and attendees across rooms, provides the mechanism for secure voting by delegations and serves to communicate with other media asset management and broadcasting automation subsystems to deliver annotated metadata (such as voting results, speaker and delegation data identification, microphone on/off events, etc.). Examples of the systems and equipment concerned by this replacement/upgrade are: desktop microphones and audio system, interpretation subsystems, room-combining subsystem and multimedia terminals. As mentioned above, the equipment and systems are beyond end of life, and critical components are out of vendor support since 2020;

- (b) Audiovisual equipment and systems. This project series will serve to modernize capabilities for the recording process, distribution and control of audio and/or video signals. Examples of the systems and equipment concerned by this replacement upgrade are: videoconference systems and cameras, digital signage systems, teleprompters, image magnification systems and screens, backup audio recording and projection equipment and public address and television transmission systems;
- (c) Recording, archiving and delivery of multimedia asset management and broadcasting automation. These are the suites that jointly support the recording of all official meetings across conference rooms, including the press briefing room and the various stakeout positions at Headquarters, archive digital audiovisual assets and distribute them to relevant organizational units, such as the Department for General Assembly and Conference Management (Verbatim Reporting Service) or the Department of Global Communications (watermarking and tagging of global media content). The suites also serve to broadcast and distribute news production and meeting content for the various official United Nations websites and to the accredited global news networks. Examples of the systems and equipment concerned by this replacement upgrade are: audiovisual high-resolution video recording encoders; media format transcode subsystem; UNTV broadcast cable and web streaming channel:
- (d) **Permanent broadcasting facility**. This includes transmission equipment and components for webcasting and broadcasting, capturing, aggregating and distributing audiovisual feeds to and from all conference rooms, television and production studios and stakeout positions, through the centralized baseband provided by the Internet protocol (IP)-based audiovisual router group, which functions as the central traffic coordinator for all audiovisual signals for distribution. The router group is a large-scale set-up comprising various types of components installed in specialized equipment racks housed in the Broadcast Equipment engineering Room, as well as connecting set-ups distributed across all conference rooms. Examples of the systems and equipment concerned by this replacement upgrade are: the dedicated Broadcast and Conference Room audiovisual router; the video distribution for resident external media; and the conference room intercom system;
- (e) **Installation set-ups**. This applies across all conference rooms and engineering rooms, including associated hardware requirements (cabling, switches);
- (f) Synchronization, diagnostics and quality control. These are to enhance capabilities for engineering management and technical operations for conferencing and meetings services, such as service request ticketing, resource scheduling, cost allocation and monitoring and alert notification for early warning, etc. Examples of current systems concerned by the planned replacement upgrade exercise include: Broadcast and Conference Support Section bookings database scheduling tool (Office of Information and Communications Technology custom application); SpiceWorks

trouble ticketing system (third party open-source tool). The upgrades for the Master Control room and the Integrated Broadcast Equipment room would have to incorporate modern capabilities for automated diagnostic, synchronization and performance monitoring controls, in addition to replacements of old equipment;

- (g) Cross-implementation requirements. This concerns implementations that are necessary for day-to-day operations for the delivery of conferencing and meeting services at Headquarters, such as closed-circuit radio capabilities for safety and security across the various conferencing and meeting rooms and events, as well as Security Council sessions; the public address system, including for announcements and notifications concerning meetings, rooms, etc., including for resident external media.
- 17. A preliminary estimate of the resource requirements over a period of three to four years is shown in table 1.

Table 1

Modernization of conferencing systems at United Nations Headquarters
(Millions of United States dollars)

Category	$Amount^a$
Congress microphone and simultaneous interpretation system	26.0
Audiovisual systems	15.5
Media asset management and broadcast automation system	3.8
Permanent broadcast facility, including router	8.5
Set-up (18 conference rooms and 6 engineering rooms)	8.0
Synchronization, diagnostics and quality control	1.0
Cross-implementation requirements	0.8
Subtotal	63.6
Installation costs	8.0
Total	71.6

^a Excludes cost escalation and contingency.

- 18. As a notional schedule, the upgrade project could start in 2025 with the upgrade of Conference Rooms 1, 2 and 3 as a first phase of the project, along with the associated requirements hosted in the six engineering rooms. The remaining 15 conference rooms could then be upgraded within three years depending on the feasibility of reducing conferencing facilities during such renovation. While a compressed schedule could reduce costs, it may not be feasible if it results in unacceptable reduction in conferencing capacity at Headquarters. On the other hand, very protracted implementation will add costs for inflation, project management and inefficiencies in replacing and/or upgrading equipment in the future owing to the varying age of the equipment.
- 19. The primary considerations for the start of the project would be: (a) greater risk of failures if the project is delayed too long; (b) minimum time needed for an evaluation of the emerging business needs, in the light of recent experiences in different modes of conferencing; (c) minimum time needed to develop a technical architecture that leverages the appropriate technologies that are now available to enhance conferencing capabilities, including evaluating how bespoke systems developed or licensed by the Secretariat would have to interface with the new systems; (d) the urgency of re-evaluating current standards across duty stations and updating a set of global standards in time for the commencement of the procurement

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of conferencing equipment and systems for the Nairobi conference centre, as well as to guide all future upgrades to conferencing around the Secretariat, notably before renovating the conference facilities at ECLAC and ECA.

20. Given the increasing risk of failure, an emergency provision of \$3.5 million was included under section 33 in the proposed programme budget for 2024 (A/78/6 (Sect. 33)) to start with the replacement of most critical equipment in deteriorated or broken condition. An equivalent or larger investment may be unavoidable in 2025 for similar emergent requirements, if the project does not commence by 2025. The estimates in table 1 do not include the \$3.5 million already requested in the proposed programme budget for 2024.

B. Safety and security

- 21. In its resolution 76/245, the General Assembly endorsed the recommendation of the Advisory Committee (A/76/7, para. XI.27) that the Secretary-General provide detailed information on the scope of the required upgrades and enhancements, along with related cost implications, in the next budget submission. In addition, the Committee was informed that the Department of Safety and Security was conducting a review of the physical security systems at headquarters locations to provide an overview of the situation, and of the scope of the upgrades and enhancements that needed to be implemented from 2023 to 2028. The Committee was also informed that the outcome of the review would be reported to the Member States in the context of the 2023 budget proposal (ibid., para. XII.28).
- 22. The assessment of investment requirements to upgrade capabilities for safety and security services across the eight headquarters duty stations was undertaken from March to August 2022. In terms of scope, the assessment was focused on four main areas that typically require investments: (a) physical security infrastructure (including equipment); (b) security systems; (c) safety operations; and (d) technical consultancies for external quality assurance. The results were reported in the previous report of the Secretary-General (A/77/519), and the Secretary-General had indicated that a more comprehensive report on the global upgrade of capabilities for safety and security would be provided to the General Assembly at its seventy-eighth session.
- 23. As reported in the previous report of the Secretary-General (A/77/519, paras. 76–83), the key findings of the assessment in 2022 of the capabilities for safety and security were:
- (a) The expansion and sophistication of the risk and threat map require an upgrade of the entire safety and security architecture currently in place, designed in the early 2000s. Inter alia, the new risk map includes agile, digitally enabled and coordinated attacks, active shooter, fire as a weapon, improvised explosive device attacks and cyberattacks. The current architecture across locations offers limited mitigation capabilities for such risks;
- (b) Requirements for safety and security operational capabilities now transcend perimeter and access control, as threats are now holistically projected, including digitally;
- (c) The long-standing practice of addressing new threats on an ad hoc basis and reactively is unsustainable. Holistic and pre-emptive upgrade planning is required, including by alignment with infrastructure and ICT at each location. Modern solutions are required to enable agile and pre-emptive capabilities integrating perimeter protection and access control with enhanced imaging capabilities for screening, detection and analytics, through interlinkages among the related systems and equipment;

- (d) The currently limited level of standardization of safety and security equipment and systems among duty stations represents a risk against the evolved threat map;
- (e) Upgrades are now driven by shorter end-of-life of equipment and systems. For example, the standardized access control system upgrade, being implemented through 2026, will need a further staged upgrade at each duty station during the period 2026–2031;
- (f) Limited project management capacity across duty stations has led to inconsistent maintenance and limited capacity to implement upgrades;
- (g) A phased implementation schedule is required to minimize disruption and provide lessons learned for subsequent rounds, optimizing cost effectiveness.
- 24. In 2005, the Department of Safety and Security started the phased upgrade of systems and equipment for physical security across the eight established offices to modernize access control by reference to the increasing threat level and intensified security challenges then confronting the Secretariat.
- 25. Specifically, the first phase of the standardized access control project (2005–2009) was focused on upgrades for compliance at all duty stations with the headquarters minimum operating security standards, with a focus on perimeter protection and electronic access control. In the second phase (2010–2015), an additional round of upgrades was implemented for perimeter protection, security gates and access at Geneva, Vienna and Nairobi and at the headquarters of ECA, ECLAC, the Economic and Social Commission for Asia and the Pacific (ESCAP) and the Economic and Social Commission for Western Asia (ESCWA).
- 26. In 2021, the Department of Safety and Security drew up a proposal to implement a further upgrade and standardization of the access control operation across all eight established offices⁶ of the Secretariat during the period 2022–2026, noting at the time that further phased upgrades would be required after 2026, to maintain the efficacy of the systems in meeting their objectives, in view of the evolution of technology, ageing of systems and evolving threats.
- 27. The global assessment was concluded in the third quarter of 2023 and was focused on the following areas, including the increasing requirements for integration across these areas:
- (a) Physical security: includes equipment for perimeter protection (walls, gates, vehicle barriers, turnstiles, ballistic protection) and specialized systems therefor (intrusion detection, screening, video surveillance, alarms);
- (b) Electronic security systems: includes screening and inspection equipment and systems (X-ray, cameras, movement and presence detectors, etc.);
- (c) Safety: includes equipment, systems and workflow protocols to serve road safety (bollards, traffic implementations and devices) and fire safety (response mechanisms, fire alarms and suppression systems);
- (d) Cross-implementation requirements: needed to implement safety and security solutions and equipment installation set-ups, such as infrastructure, ICT, networks, energy and facilities-related implementation, where necessary.
- 28. The scope of the upgrade plan has been confirmed to cover all safety and security systems, equipment and infrastructure requirements for perimeter protection,

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⁶ Regional and subregional offices of the regional commissions are either covered under common system arrangements or have limited requirements that have been implemented as ad hoc requirements.

- access control, screening, detection, ballistic protection, fire safety, surveillance systems and analytics, along with a standardized safety and security integrated control room at each duty station. In addition, cross-requirements (e.g., power supply, alarms, reconstruction of gates, networks, etc.) were identified and integrated within the project planning matrix as interdependent requirements for implementation.
- 29. The assessment factored in (a) current best practices for a modern safety and security operation, comprising, inter alia, new equipment and technologies for surveillance, screening and detection; (b) a suite of integration solutions for analytics, including for pre-emptive capabilities; and (c) enhanced infrastructure and ICT resilience as interdependent requirements.
- 30. For access control, the modern standard is to assure the real-time interoperability between authenticated data at each duty station with simultaneous cybersecured consolidation of all data in a global repository. To assure the two concurrent requirements, smart cards are used given their higher security for integration with the rest of ICT and safety and security systems. This project is under implementation at the Secretariat as part of the standardized access control project during the period 2022–2026.
- 31. For screening and detection, the modern standard is to establish a variety of sophisticated screening technology and ad hoc specialized detection tools to detect dangerous metallic and substance materials which are increasingly subject to sophisticated concealment methods (explosives, chemicals, weapons). Such detection and screening equipment and technology would also require integrated solutions for real-time analytics.
- 32. For video monitoring and enhanced imaging, the modern standard has started to use advanced analytics applications to, for example, integrate digital and perimeter protection. Without prejudging the outcome of a standardization upgrade to be proposed in a detailed implementation report when resources are requested, it is noted that the Secretariat's capabilities for detection and countermeasure are suboptimal against the current threat map, starting with its aged equipment.
- 33. For physical security, the modern standard includes a wide range of specialized equipment, infrastructure and structural components, with varying specifications adjusted to the specific risk map by location, including anti-blast and ballistic protection equipment, upgraded booths, specialized protective add-ons to entrances and facades, rated glazing across buildings, compartmentalization, automated armouries for safe custodianship of weapons, etc.
- 34. A critical capability of modern safety and security operations is to establish an integrated safety and security control room and operations centre to physically integrate into a single command facility all safety and security systemic and operational areas (access control, physical security, video surveillance and analytics, screening and detection, buildings systems, fire safety integrated control, shooting range, training room, lockers and electronic armoury). Such an integrated facility would need to be provisioned with independent networks and ICT protocols to secure business continuity and mitigate risk. At the same time, existing control rooms would serve as backups to mitigate the risk of single points of failure.
- 35. The integrated Safety and Security Services Control room and Operations centre, based on the Headquarters model, will initially be implemented in Santiago and in Addis Ababa, as part of their security and safety upgrades, to be followed by Nairobi and others at established offices in due course.
- 36. An electronic armoury solution is another key feature of modern safety and security operations, as it replaces manual controls through automated accounts for weapons storage and transfer, including on shift changes. The electronic armoury

implemented at the United Nations Office at Geneva has been established by the Department of Safety and Security as the standard for all duty stations. The implementation projects identified in the present report include such armouries for ECA, ECLAC, the United Nations Office at Nairobi, ESCWA, ESCAP and Headquarters.

- 37. Following the integrated methodology described in section II, the identified requirements have been grouped by project series by reference to each core category of safety and security operation and system and matrixed into the implementation schedule, identified by area, by office and by year, along with integration points across other areas (facilities, buildings, conferencing and ICT), to derive the related estimates by component, presented in the same structured breakdowns (by project, by series, by safety and security category, by year and by office).
- 38. During the assessment in 2023, it was determined that it would be beneficial to compress the implementation time frame to six years from 2026 to 2031 for three reasons:
- (a) The standardized access control upgrade project, started in 2022 and planned for completion during 2026, is a prerequisite for the rest of the scope of the global upgrade identified in the present report, because access control is key for the overall protection of the premises and staff across the Secretariat. Furthermore, the standardized access control systems will require a further round of upgrades after 2026. Such upgrades will need to be synchronized with the implementation of the global project for the upgrade of the safety and security at each location for optimal integration and alignment to the underlying ICT infrastructure, thereby maximizing synergies and return on investment;
- (b) The rate of evolution of technology, integration solutions and equipment since 2000 is likely to accelerate until 2030, as the threat and risk maps themselves continue to do so in parallel. A plan longer than six years is therefore not advisable;
- (c) A compressed schedule will allow the Department of Safety and Security to stagger end-of-life cycle replacements for systems and equipment across all duty stations during the period 2026–2031, aligned to parallel upgrades in related implementation areas.
- 39. In line with the above strategy, the integrated project planning exercise during 2023 served to determine the priority upgrades that would be required during the period 2024–2025 under section 33, principally to continue with the implementation of the standardized access control project during the period 2023–2026, and to continue with select replacement of obsolete equipment which would be at any rate required for the global safety and security upgrade plan to be implemented during the period 2026–2031. Such priority upgrades include the following:
- (a) Modernization of screening equipment such as X-ray machines and magnetometers at Headquarters, the United Nations Office at Nairobi, ECA and ECLAC:
- (b) Replacement of obsolete cameras and video surveillance equipment at Headquarters, ECA and the United Nations Office at Nairobi;
- (c) Enhancements for ballistic protection, including hardening the secondary layer of security protection at the United Nations Office at Nairobi, the United Nations Office at Vienna, ESCWA and ECA;
- (d) Security booths at Headquarters, ECA and ESCAP, along with the upgrade of post 105 at Headquarters;

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- (e) Implementation of the standard for integrated safety and security control room and operations centre and alternate backups at Headquarters, the United Nations Office at Nairobi, ECA and ECLAC.
- 40. The estimate for funding the implementation of the projects for the global upgrade of safety and security systems during the period 2026–2031 across all eight duty stations amounts to \$126.1 million, as shown in table 2, the predominant amounts being for the upgrades and replacements of safety and security systems, equipment and installations, along with the associated implementation requirements. Of this amount, \$66.3 million pertaining to ECA and \$15.6 million pertaining to ECLAC are also included, for completeness, under the respective sections of the present report relating to the renovations of those two regional commissions. It is also noted that the implementation of the safety and security related upgrades at ECA would extend beyond 2031 to align them to the schedule of the comprehensive renovation of the compound in Addis Ababa.

Table 2
Resource requirements for global upgrade of safety and security systems
(Millions of United States dollars)

Project	$Total^a$	2026	2027	2028	2029	2030	2031
ECA^b	66.3	7.6	10.2	12.5	13.5	12.0	10.5
ECLAC	15.7	1.5	3.1	1.4	4.0	4.3	1.4
ESCAP	2.5	0.7	0.4	0.3	0.5	0.3	0.3
ESCWA	2.9	0.6	0.5	0.4	0.4	0.2	0.8
United Nations Headquarters	17.2	3.7	3.6	3.9	1.9	2.2	1.9
United Nations Office at Geneva	9.0	2.4	3.4	3.2			
United Nations Office at Nairobi	6.2	1.9	2.2	0.7		0.8	0.6
United Nations Office at Vienna	6.5	0.8	1.0	3.1	0.7	0.3	0.6
Total	126.5	19.2	24.4	25.5	21.0	20.1	16.3

^a Excludes project management, cost escalation and contingency.

41. The scope of these projects for each office and regional commission is briefly outlined in the following paragraphs.

Economic Commission for Africa

- 42. A total of 193 projects for implementation will serve to modernize and upgrade the safety and security capabilities at ECA, during the period 2026–2034, including the strengthening of perimeter protection, reinforced ballistic protection and compartmentalization across buildings and pathways to mitigate risks along with the associated replacement of equipment, systems and infrastructure. The investments at ECA require a large scale of interdependent implementations concerning infrastructure, buildings, common networks and ICT, all of which are included within the integrated project planning for the comprehensive renovation of the Commission's deteriorated compound in Addis Ababa, as outlined below.
- 43. In addition to the physical scale of the Addis Ababa compound (13 hectares of land within a perimeter of 1.6 km, hosting approximately 2,250 personnel), unlike at other duty stations, the security officers at ECA, in compliance with the host country

b The ECA safety and security upgrade will have to extend beyond 2031 until 2034 owing to dependencies on the renovation of various buildings. The estimate for 2026–2034 is \$86.1 million as shown in table 5.

agreement, are unarmed and therefore have a limited response capacity. This limitation underscores how the security of the ECA compound critically depends on the ability to quickly execute a full-scale lockdown to neutralize threats.

- 44. The renovation and upgrade of the Addis Ababa compound includes the following safety and security upgrade projects:
- (a) Reinforce perimeter protection, which includes redesign and additional construction to enhance capabilities for screening, detection, blast protection, etc.;
 - (b) Install modern screening equipment, gates and barriers;
 - (c) Rebuild the north perimeter gate to implement these enhancements;
- (d) Introduce compartmentalization as the overarching redesign criterion of the architectural plan for the compound's renovation, starting from the outer perimeter moving inwards through pathways into lobbies and safe rooms across buildings;
- (e) Improve the entry points and lobbies across the various buildings, replace doors and other structural elements, establish bunker zones and safe rooms, upgrade fire safety, etc.;
- (f) In turn, the above require the comprehensive modernization of the infrastructure for safety and security systems to connect to the future integrated safety and security control room and operations centre and to the current room in operation, which will be retained as backup.

Economic Commission for Latin America and the Caribbean

- 45. A total of 11 projects for implementations during the period 2026–2031 will serve to modernize and upgrade the safety and security services capabilities at ECLAC, which includes the reconstruction of the secondary gate, and the construction of a new facility to consolidate the integrated safety and security services control room and operations centre in the Santiago compound that will also serve to house the training room, the electronic armoury and the shooting range.
- 46. The safety and security risk assessment of the ECLAC compound in Santiago, occupying an area of 13.5 acres within a perimeter of 1,143 m, accommodating 673 staff, is critically driven by the high seismic risk of the location. In addition, increasing incidents and repeated attempts to gain entry to the compound, call for an urgent modernization upgrade to reinforce the perimeter and gates, as well as to enhance ballistic protection, all of which require modernization of the associated equipment, systems and infrastructure, which are 12 years old on average.
- 47. With the above in mind, the investment upgrade plan for ECLAC includes:
- (a) The upgrade of the entire infrastructure, including to secure autonomous uninterrupted power generation and connectivity to ensure continuity of safety and security operations;
- (b) The upgrade of the subsystems for physical security, integrated through the underlying C-CURE system, which will commonly serve to progress on the implementation of the standardized access control upgrade, which in turn requires interoperability to integrate with the global access control ID solution at Headquarters;
- (c) Upgraded equipment and systems for detection, screening, surveillance and fire safety, integrated within the safety and security control centre for effective actions:
 - (d) The reconstruction of the secondary gate to ensure segregation of access;

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(e) Construction of a facility to consolidate the integrated Safety and security control room and operations centre in the Santiago compound.

Economic and Social Commission for Asia and the Pacific

- 48. A total of 20 projects during the period 2026–2031 will modernize and upgrade the safety and security capabilities at ESCAP. The ESCAP compound in Bangkok occupies an area of 7.8 acres, housing 27 offices of United Nations agencies, funds and programmes, hosting about 1,800 staff and 170,000 visitors a year. Critically, the compound is adjacent to a main road where extended stand-off distance is not possible, while the current perimeter and barriers do not sufficiently mitigate the risk of vehicle ramming. Accordingly, the external layers of the perimeter need to be reinforced, both physically and electronically.
- 49. The investment in the compound is focused on the reinforcement of its perimeter for crash and blast protection, the installation of modern screening and detection equipment, the design and construction of new entry points for segregated access and the modernization of the service gate, which functions as a screening annex. In addition, the investment will serve to fund the life cycle replacements of old safety and security equipment and systems.

Economic and Social Commission for West Asia

- 50. A total of 20 projects during the period 2026–2031 will serve to upgrade systems and equipment for physical security, video surveillance and analytics, along with the replacement upgrade of the underlying infrastructure for safety and security across United Nations House in Beirut. No cross-implementation requirements regarding structures, buildings or facilities are deemed necessary.
- 51. The ESCWA compound in Beirut, United Nations House, occupies 2.2 acres within 380 m of the perimeter, next to the offices of the Prime Minister and of Parliament. The building has 16 floors, including six parking floors, and houses 460 staff.
- 52. The primary safety and security concern relates to the inherent vulnerability deriving from the architectural design and geographical location of the building. The explosion in the port of Beirut on 4 August 2020 has reconfirmed that, even after a full retrofit of United Nations House, risk will remain high and extremely difficult to mitigate. Accordingly, the preferable long-term solution, as outlined in the report of the Secretary-General (A/68/748), remains unmodified, were an agreement with the host country to be reached.
- 53. In view of the above, the proposed small scale of upgrades for the United Nations compound in Beirut is aimed at maximizing the safety and security of United Nations staff, visitors and delegates to the extent possible in the current circumstances, with the primary aim of reinforcing the upgrades in progress at the duty station, in particular to (a) replace obsolete systems to allow interoperability, including for fire safety, and (b) continue with the reinforcement of anti-blast mitigation features.

United Nations Headquarters

54. A total of 65 projects for implementation during the period 2026–2031 will modernize and enhance the safety and security capabilities at Headquarters, which includes light structure-related work required for implementation. These will serve to upgrade safety and security equipment and systems to enhance perimeter protection,

detection, surveillance, and upgrade the infrastructure for the canine unit (K-9) and weapons management.

- 55. The standardized access control upgrade project in progress includes the implementation of a smart-card-based system that would serve to integrate the registration of individuals by location to allow conference participants, visitors, etc. to be accounted for in real time. An upgrade of the underlying C-CURE systems, equipment and associated infrastructure will be required in 2026–2027 to allow integration of the access control with barriers, panels, controllers and card readers across facilities and entrances at Headquarters by the time the access control upgrade is concluded in 2026.
- 56. For perimeter protection, the proposal for Headquarters includes the upgrade of the wedge and drop-down arm barriers and the hydraulic and fixed bollards.
- 57. In respect of screening (for both vehicle and under-vehicle detection), the proposal includes replacing the single-view technology with modern capabilities to allow video motion detection and tracking of persons and object movement. Specifically, this upgrade will concern and/or incorporate the following new equipment and technology:
- (a) Dual-view X-ray screening offering a more compressive and accurate assessment of the contents, reducing the need for additional inspections, and enhancing the overall throughput of screening operations;
- (b) Advanced security screening (3D view) offering high-resolution X-ray technology combined with computed tomography imaging, providing detailed and reliable information about the contents of scanned items;
- (c) Incorporation of advanced screening technology, addressing the issue of false alarms, and to enhance threat detection.
- 58. In respect of video monitoring and visitor management (systems and hardware), the plan includes the upgrade of the network video recorders, which will serve to allow integration of the recording of imagery with access control data, extend perimeter surveillance with synchronized coverage of all access points (pedestrian and vehicular) and public circulation areas, along with segmented coverage of focus areas such as VIP offices, armoury, banks, data centres, etc.
- 59. These upgrades will also serve to modernize the current Security Operations Centre and alternate Security Operations Centre at Headquarters.

United Nations Office at Geneva

- 60. A total of 10 projects for implementation will modernize and enhance the safety and security capabilities in the United Nations Office at Geneva compound.
- 61. By 2026, it will be more than 13 years since the United Nations Office at Geneva undertook a holistic modernization of its security architecture, systems and equipment for a complex (Palais des Nations) of 113 acres within 5.3 km of perimeter, housing various United Nations offices and hosting 3,650 staff and 169,000 visitors per year. With the above in mind, the investment plan includes the following two key projects:
- (a) Implement a twofold lockdown strategy based on the installation of robust revolving doors throughout all access points in the historic buildings that can be automatically locked down, and implement additional automated lockdown capabilities across select areas and pathways within the compound to contain threats;
 - (b) Replace detection and screening equipment along the perimeter and at gates.

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62. The United Nations Office at Geneva has noted that the budget for the strategic heritage plan does not include the end-to-end modernization requirements for the full implementation of the plan.

United Nations Office at Nairobi

- 63. A total of 50 projects for implementation during the period 2026–2031 will modernize and enhance the safety and security capabilities in the Nairobi Gigiri complex. The United Nations complex in Nairobi encompasses 146 acres within a perimeter of 4.3 km, containing 48 buildings with a total built area of approximately 75,000 m², housing more than 50 offices of the United Nations system, hosting more than 3,500 staff members and approximately 600 other personnel. The two main entrances (Main Gate and Delivery Gate) and one limited access point to the compound (petrol station and recreation centre) are all adjacent to a large avenue, particularly congested during rush hours when staff report to and leave from work.
- 64. Despite partial security upgrades at the United Nations Office at Nairobi since 2015, a holistic upgrade is required, including to modernize and reinforce perimeter protection, detection and screening, fire safety and blast mitigation along with the related systems, equipment and associated infrastructure, as well as the security upgrade of the visitors' pavilion.
- 65. The major requirements of the investment plan in Nairobi concern the upgrade of the infrastructure supporting safety and security systems and the establishment of an integrated safety and security control room and operations centre to house the electronic armoury and the shooting range, as well as the upgrade of safety and security features at the visitors' pavilion.

United Nations Office at Vienna

66. The host country has signalled its intention to undertake a comprehensive renovation of the Vienna International Centre. Accordingly, an in-depth safety and security review would be required once such a plan is officially announced. Expenditures relating to the Centre are co-shared among the Vienna-based Organizations, namely, the United Nations, the International Atomic Energy Agency (IAEA), the United Nations Industrial Development Organization and the Comprehensive Nuclear-Test-Ban Treaty Organization. The cost-sharing ratios are calculated by reference to the number of staff, the volume of occupied space and the share of common services of each organization. The current share of the United Nations Office at Vienna is 23.198 per cent, while IAEA has the largest share, with 53.893 per cent.

Upgrades of global safety and security capabilities beyond 2031

- 67. In 2028, the Department of Safety and Security intends to undertake a new comprehensive assessment across duty stations, to address needs arising from the periodic assessment of the status of minimum operating security standards and the security risk management across duty stations, while also reviewing the lessons learned through the 2026–2031 upgrade programme. The requirements at that stage for an additional three-year period (based on equipment life cycle, etc.) are expected to be smaller in scale compared with the 2026–2031 cycle.
- 68. A reactive approach to the replacement of safety and security systems and equipment is no longer sustainable. Phased planning to replace and upgrade is the preferred approach as it allows graduality and enables scalability and incremental optimization with a less disruptive implementation schedule, extending product life across cycles, reducing vulnerabilities and optimizing investment.

69. The Department of Safety and Security needs a dedicated team to be established under section 34 as from 2025 to assure both the central vetting of technology road maps and standards for systems, equipment and set-up components. In addition, the team would assure both the production of integrated project plans for each implementation and the subsequent oversight on execution. These roles represent a continuing requirement that would also be needed to produce the detailed integrated project planning execution schedule by duty station to implement the global upgrade of safety and security capabilities during the period 2026–2031.

C. Renovations at the Economic Commission for Latin America and the Caribbean

- 70. In 2022, an initial assessment was conducted of the investment effort required to comprehensively upgrade, renovate and modernize the various structures, facilities, infrastructure and other capabilities required by the Commission to enhance its programme delivery and operations in the context of the demands of the twenty-first century.
- 71. The ECLAC campus in Santiago was finished in 1966. The ongoing North Building project is scheduled for completion by the end of 2024. Since 56 years have passed, some upgrade of its infrastructure is to be expected. The assessment of ECLAC investment needs was guided by the lessons learned from the impact of the 2010 earthquake and subsequent rebuilding and by assessing additional upgrade requirements to strengthen the infrastructure across buildings, given the permanent seismic risk of the headquarters location. The demands during the pandemic for new methods of work and modalities for servicing meetings and conferences, and increasing demand from member States for e-servicing capabilities, were also factored in. E-servicing and digital delivery of programmatic activities, especially of intellectual products, to its constituent member States are also pressing needs for ECLAC.
- 72. The key findings of the initial assessment in 2022 were the following:
- (a) The aged ECLAC conferencing structures and facilities in Santiago require urgent renovations and upgrades (the old Auditorium, the conference and meeting rooms, the training facilities), in addition to the comprehensive replacement of obsolete furniture, equipment and infrastructure across all facilities. The Auditorium also lacks accessibility and sustainability features and even an emergency evacuation exit, which represents a safety risk. Annex I to report A/69/760 on "Overview of the real estate portfolio of the Secretariat" had already indicated that the depreciation level of ECLAC structures had reached 87 per cent;
- (b) The limited capacity for conferencing and meetings represents a limitation to ECLAC programme delivery. The construction of a small secondary auditorium in the main building, along with the renovation of the old auditorium and of the conferencing rooms, could overcome this limitation;
- (c) A series of investments are required to upgrade capabilities for safety and security in the Santiago compound, including the redesign of the secondary gate to establish segregated access and to enhance perimeter protection, as well as to establish an integrated safety and security control room and operations centre, leveraging modern technology to integrate the entire safety and security operations;
- (d) ECLAC global ICT infrastructure and hardware require an upgrade to strengthen connectivity and enhance capabilities for digital services and business continuity across its network of regional offices, including an upgrade of its secondary data centre in Mexico City;

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- (e) ECLAC statistics platforms and applications (such as CEPALSTAT) need upgrades to enhance digital delivery of services to member States, preserve and expand the usage of the Commission's intellectual capacities, including its websites, and the digital repository of member States' data and of the regional observatories.
- 73. Further to the initial assessment in 2022, a total of 136 implementation projects were identified in a further assessment in 2023:
- (a) 52 projects to renovate and modernize buildings and facilities, including for security, accessibility and sustainability (universal accessibility, renewable energy, water treatment and waste management to progress towards a net zero objective);
- (b) 36 projects to comprehensively renovate the old Auditorium, expand hosting capacity within the existing structures (from 600 to 1,200 persons), upgrade conferencing and training facilities to enable simultaneous events, currently not feasible, and replace the aged infrastructure, furniture and equipment;
- (c) 48 projects to implement various safety- and security-related upgrades, including upgrades of equipment, systems and infrastructure across the regional offices and in the Santiago compound; the reconstruction of the compound's north gate for segregated access; and the establishment of a modern facility to serve as an integrated safety and security control room and operations centre by consolidation of all safety- and security-related systems and equipment, the armoury, the shooting range, the safety and security training room and the various service lines, while the existing control room will serve as a backup control room.
- 74. The preliminary estimates for these investments, based on detailed assessments, are outlined below.

Table 3
Resource estimates for the renovations at the Economic Commission for Latin America and the Caribbean

(Millions of United States dollars)

Project	Amount
Renovation of Buildings and Facilities	9.7
Renovation/Upgrade of Auditorium, meeting and training facilities	39.3
Upgrades for Safety and Security	15.6
Total	64.6

^a Excludes project management, cost escalation and contingency.

75. Although the assessment included a detailed inventory of ICT assets, including networks, cabling, routers, servers and storage and other equipment, as well as commercial and in-house software applications, the estimates for the investments needed to upgrade or replace them have not been determined, owing to their dependence on an overall ICT strategy for the Secretariat and how that might impact such investments; for example, the increasing use of cloud-based data centres may obviate the need for a secondary data centre in Mexico City, the hosting of ECLAC systems such as CEPALSTAT may be moved to the enterprise centres in Brindisi and/or Valencia if this is deemed more efficient, and the choice of technologies or establishment of new standards could impact some of the infrastructure investments.

76. Based on the dependencies within and among the projects, an illustrative schedule for implementation, including associated cost estimates, has been developed as shown in table 4.

Table 4

Illustrative distribution of resource requirements over time for the renovations at the Economic Commission for Latin America and the Caribbean (Millions of United States dollars)

Project	Totala	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Renovation of buildings and facilities	9.7	0.1	1.9	4.3	1.1	1.8	0.5
Renovation of Auditorium, construction of secondary auditorium and upgrade of meeting and training facilities	39.2	0.8	2.4	7.8	11.4	9.7	7.1
Upgrades for safety and security	15.7	1.5	3.1	1.4	4.0	4.3	1.4
Total	64.6	2.4	7.4	13.5	16.5	15.8	9.0

^a Excludes project management, cost escalation and contingency.

- 77. Compressing the six-year timeline is feasible for some of the projects and could result in some savings related to project management costs (which are estimated at \$4.0 million over a period of six years) and reduce the escalation for inflation. However, it would need a larger annual outlay in a compressed time frame, alongside other investment projects.
- 78. ECLAC has been implementing various small-scale upgrades under section 33 during the period 2020–2023 to improve the infrastructure and networks supporting ICT and conferencing and safety and security, as well as investments to enhance sustainability and accessibility and upgrade capacity for business continuity. These upgrades have enabled a baseline to be established to define the scope of the investments indicated above.
- 79. ECLAC will continue to include small-scale upgrade projects in the proposals under section 33 for 2024 and 2025. Specifically, under section 33 for 2024, ECLAC has formulated projects to enhance accessibility and sustainability, as well as to start the upgrade of old ICT infrastructure to enhance connectivity and resilience across the Commission's offices, including to widen access to and usage by member States and other stakeholders in ECLAC digital repositories, statistics platforms and databanks through enhanced hosting services. These conform to current ICT standards for the Secretariat and will be aligned with any changes in standards that may be promulgated in the future.

D. Renovations at the Economic Commission for Africa

- 80. In 2022, in an initial assessment, a significant level of structural decay and obsolescence was identified across the ECA compound in Addis Ababa, a diagnostic that was shared with the General Assembly in the previous report of the Secretary-General (A/77/519).
- 81. The ECA campus in Addis Ababa has grown to become a consolidated One United Nations system complex, encompassing 20 buildings and more than 110,000 m² of construction on 13 hectares of land surrounded by a 1.6 km perimeter. It hosts approximately 2,250 personnel of ECA and various agencies of the United Nations system. Some 70 per cent of the 1,897 personnel of the United Nations agencies in Addis Ababa continue to wait for space at the ECA campus to relocate. In

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- addition to its headquarters in Addis Ababa and the Dakar-based African Institute for Economic Development and Planning (IDEP) which is in leased space, ECA maintains five subregional offices across the African continent, in Kigali, Lusaka, Niamey, Rabat and Yaoundé.
- 82. The construction of the ECA campus was begun in 1961 with the Congo Building and Africa Hall, continuing in 1974–1976 (the Niger, Limpopo and Nile Buildings) and followed by the construction of the Conference Centre in 1996 and of the Zambezi Building in 2011. Despite their ageing, no significant renovations have been undertaken besides maintenance and ad hoc repairs, except for the ongoing projects of the Africa Hall renovation (1961), the upgrade of two rooms of the Conference Centre (2011) and the pilot flexible workspace project in the Niger Building (1976), all scheduled for completion during the period 2023–2024. While important, these renovations cover only a fraction of the accumulated requirements, as noted in the report of the Secretary-General on the strategic capital review (A/72/393) and by the Advisory Committee in its related report (A/72/7/Add.9).
- 83. The international standard for the life cycle of building structures is 40 years, with periodic upgrades to maintain value and operational efficiency. Such maintenance and refurbishments at ECA during the period 1982–2022 have extended the life of these assets by 50 per cent, to 60 years. Notwithstanding this, ECA buildings are among the most depreciated. Since 1961, the cumulative investment on the compound in Addis Ababa totals \$365 million, including construction, maintenance, repairs and a few ad hoc renovations. Currently, the buildings have depreciated by 95 per cent, and their life cycle cannot be further extended.
- 84. In August 2022, the Department of Safety and Security conducted a technical assessment at ECA that highlighted the urgency of some upgrades for compliance with minimum operating security standards because ECA had the lowest compliance among the main eight duty stations.
- 85. The Department of Safety and Security assessment highlighted the urgency of the following:
 - (a) The initial stage to strengthen the 1.6 km perimeter of the compound;
- (b) The overhauling of the main entrance gate to the compound (East Gate) in order to segregate pedestrian and vehicular access for compliance with minimum operating security standards;
- (c) The renovation of the various structures adjacent to the perimeter to reinforce protection with modern features, including to install a protection screen/roof across select areas of the compound to mitigate the line-of-sight risk;
- (d) The initial upgrade of ballistic protection and structural hardening across lobbies and pathways compound-wide, currently lacking compliance with minimum operating security standards;
- (e) The upgrade of the underlying infrastructure, systems and networks supporting the safety and security operation, which will require extensive cross-integration among construction, engineering, cabling, energy and ICT infrastructure implementation.
- 86. Given the scale of the renovation project, the Secretary-General included in his previous report a request to fund a technical consultancy for ECA to complete a comprehensive Architectural and Engineering Master Plan in 2024 that is required for the formulation of an integrated project proposal to be submitted to the General Assembly (A/77/519, para. 103). The Assembly deferred the decision on the report.
- 87. In continuation of the security-related upgrades approved for implementation in 2023 under section 33 of the proposed programme budget, the Secretary-General

included a further request under the 2024 proposal (A/78/6 (Sect. 33)) for a total of \$3.7 million. This provision would serve in 2024 to progress with the first phase of safety- and security-related upgrades (perimeter, gates and associated equipment and infrastructure), to continue with the staged, multi-year renovation of the Commission's old building in Yaoundé, housing the ECA regional office in West Africa, and to undertake a preliminary study for the development of the master plan. These proposals are prerequisites for the implementation projects for ECA identified in the present report.

- 88. In the absence of the funding for the master plan, work has been continued internally in 2023 to develop an integrated project planning matrix, integrating the series of structural renovations and modernization upgrades required across buildings, facilities and infrastructure to transform the compound into a modern work environment, with updated engineering and architectural design, enhanced accommodation and well-being standards and strengthened safety and security capabilities, as well as to further enhance universal accessibility and sustainability features across the Commission's entire range of buildings, facilities, pathways and ICT service operations.
- 89. The scope of the investments in ECA would have to be to (a) renovate buildings and facilities, (b) upgrade safety and security, (c) enhance sustainability and accessibility across premises and operations, (d) upgrade conferencing systems, and (e) upgrade the ICT infrastructure to strengthen connectivity and resilience. More than 800 projects have been identified in this regard.
- 90. The most urgent requirements relate to safety and security. A total of 265 projects have been identified to implement upgrades incrementally over a period of nine years; the longer duration compared with other duty stations is necessitated by the dependency on the renovation of buildings that has to precede some of the projects. A total of \$66.3 million would be needed from 2026 to 2031 and a further \$19.8 million from 2032 to 2034; the details by categories of projects are shown in table 5.

Table 5
Safety and security upgrades at the Economic Commission for Africa (2026–2034)

(Millions of United States dollars)

Project	Amount ^a
Perimeter reinforcement and gates	10.0
Structural reinforcements and upgrades for safety and security across buildings (safe rooms, lobbies, ballistic protection)	48.0
Security upgrades across pathways and ancillary structures	4.1
Security features of two car park zones	18.0
Integrated Safety and Security Control Room and Operations Centre	4.0
Safety and security upgrades in regional offices	2.0
Total	86.1

^a Excludes project management, cost escalation and contingency.

91. ECA has extensive requirements for upgrading or modernizing conferencing infrastructure, systems and equipment. While the Africa Hall renovation is already in progress and expected to conclude by June 2025, ECA has 23 other conferencing rooms in the Conference Centre (2 plenary halls, 6 large meeting rooms and 15 smaller meeting rooms) and 9 meeting rooms in the Niger Building. Conservatively, the upgrades are likely to cost more than \$25 million; however, these upgrades should

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be undertaken only after the standardization to be established for the Headquarters and Nairobi conferencing systems. They are also tied to the upgrades of the ICT infrastructure supporting conferencing. The ICT upgrades, especially cabling and networks are, in turn, tied to the renovation of the buildings and must also factor in the strategic direction established through the ICT strategy. Owing to the number and size of buildings, the ICT upgrades have to be planned carefully and are likely to be significant. A data centre in the Niger Building and infrastructure hardware and networks across ECA regional offices also have to be upgraded. The upgrade for the regional offices is estimated at approximately \$2 million and could potentially be undertaken without waiting for the overall upgrades in Addis Ababa.

- 92. By far the most significant renovations in the Addis Ababa compound will be those relating to the buildings and facilities. The largest value of renovations is likely to be the Niger Building, followed by the Congo Building, the United Nations Conference Center, the joint Limpopo and Nile Building and the Zambezi Building. In addition, infrastructure upgrades will be necessary across all buildings and facilities for accessibility, energy, water and waste management.
- 93. More importantly, the renovation of the buildings in the Addis Ababa compound will have to be preceded by the construction of a new building to serve initially as a swing space during the phased renovations of the other buildings, and eventually as an additional office building to address the shortage of office space for consolidating the presence of the United Nations system on one campus, with greater security and access to clinics and other amenities.
- 94. Owing to the scale and complexity of the ECA renovation projects and their interdependencies, the renovation project in the Addis Ababa compound must be based on a proper architectural and engineering master plan. The sooner such a plan is developed the better, as the ECA campus is already in a very bad state of repair. Delays in this project will not only increase the risk of operational disruptions but, more importantly, drive the costs of the project upwards owing to cost escalation from inflation. Owing to its complexity, the project will also require strong governance, and dedicated project management teams to ensure that risks are proactively identified and mitigated over a period of some eight to nine years. The project management team for the Africa Hall project could probably be augmented as necessary to provide such capacity. The challenges encountered during the Africa Hall renovation could provide valuable lessons for managing this project.
- 95. Owing to its large scope, the renovation of the buildings and facilities, along with the conferencing and ICT systems, should be submitted to the General Assembly as a stand-alone report, once the master plan is developed. The elements of safety and security that are not directly linked to the buildings should be undertaken in parallel owing to their urgency and integrated with the main renovation project as soon as it is approved by the Assembly.

E. Renovations at the United Nations Truce Supervision Organization, Jerusalem

96. As noted in the proposed programme budget for 2024 (A/78/6 (Sect. 33)), an assessment of the condition of the 75-year-old compound of the United Nations in Jerusalem was conducted early in 2023. The assessment pointed to extensive structural erosion and large-scale obsolescence of the infrastructure and equipment across the compound, which creates safety risks and a suboptimal work environment for the staff and for operations, given the limitations imposed on resilience, cost-effectiveness and sustainability.

- 97. Established in 1948, the compound grew through the 1960s under a temporary construction approach by accumulation of camp-style, light structures without an architectural master plan to rationalize zoning and infrastructure. Accordingly, the 7-hectare compound with a 1.4 km perimeter contains 40 structures of various construction types, generally light and rudimentary, randomly dispersed across the landscape.
- 98. As a result, the following systemic deficiencies have accumulated:
- (a) Ineffective zoning, with structures scattered across, combined with obsolescence, drives a non-sustainable operation (water leakages, high consumption);
- (b) Overextended infrastructure networks (6,350 m in length) further limit water supply, which represents a fire safety risk, especially since 55 per cent of the compound (38,000 m²) is forest/grass areas, further extended by the forested surroundings;
 - (c) Seismic risk vulnerability is compounded by extensive structural erosion;
- (d) An office building remains vacant since 2018 given its structural decay, while two annex buildings housing the Office of the Special Coordinator for the Middle East Peace Process and Personal Representative of the Secretary-General to the Palestine Liberation Organization and the Palestinian Authority are considered unsafe;
- (e) Scarce functional space and staff still working in containers, despite the proliferation of structures;
- (f) The colocation of industrial activities and workshops next to office buildings adds to the safety risk (fire; noise; pollution; possible explosion);
- (g) The lack of segregated access to the compound adversely impacts mobility and traffic flow:
- (h) Limited accessibility (55 per cent not accessible, 18 per cent ground floor only);
 - (i) No sustainability features (no insulation, no renewable sources);
- (j) Non-compliance with the local code, and with occupational and safety standards for staff (seismic, fire and implosion risks; non-compliant bunker lacking direct air supply).
- 99. A comprehensive renovation of the United Nations compound in Jerusalem is required, to address the safety risks and to establish a work environment with modern capabilities for resilience, productivity, accessibility and sustainability. Such a renovation would entail the following:
- (a) Rezoning of the compound to optimize space distribution with a smaller number of higher-quality buildings with modern standards (safety, ergonomics and accessibility) and as a prerequisite for the other interventions;
- (b) Consolidation of industrial activities in the north-eastern area of the compound to eliminate health hazards and safety risks, as well as to make efficiency gains for space and energy (consolidation of workshops, warehousing, fuel station);
- (c) Reinforcing the structural resilience of buildings and structures across the compound to address the general decay, prevent implosion and mitigate seismic risks;
- (d) Building a new green office building (eco design and materials, smart and energy efficient) with modern equipment where three obsolete structures are now located, to establish a new modern work facility (i) with design and materials conforming to the existing sight level (2 floors) and to the "Jerusalem stone" look, as the historic buildings No. 1 and No. 3 already do, (ii) to serve as swing space for the

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renovations of other buildings, and (iii) after the renovation of the other structures, to serve as new workspace for staff and offices now housed in containerized structures and in light structures that will be demolished;

- (e) Reducing the construction footprint, despite the new building, by demolishing various decayed and obsolete structures (e.g., buildings No. 6, No. 3.a., No. 3.b., No. 9 and No. 33) and expanding green and forested acreage with indigenous trees and plants;
- (f) Reinforcing the compound's safety and security posture by (i) reopening the currently closed north gate to segregate access, decongest traffic flow and parking, as well as establish a secondary evacuation route, (ii) establishing code-compliant safe rooms and bunkers across the compound, (iii) upgrading the overall infrastructure, equipment and systems for safety and security;
- (g) Modernizing the compound's facilities and work environments across buildings (furniture, equipment, ergonomic design features for light and air flow);
 - (h) Implementing universal accessibility (buildings, facilities, pathways, etc.);
- (i) Implementing a sustainability plan: waste disposal and recycling; energy efficiency (photovoltaic, LED and electric recharging station to progressively transition the fleet to hybrid); water efficiency (low-flow toilets, faucets; install drainage systems to prevent flooding; and permeable pavements and infrastructure to harvest rainwater run-off for irrigation).
- 100. Based on the 2023 assessment, 28 projects have been identified to implement the renovation. The preliminary estimate, based on detailed work, is shown in table 6. Based on the dependencies within and among these projects, an illustrative timeline with a distribution of the costs is also included in the table. There will be scope for compressing the timeline, if needed, especially to reduce costs associated with implementation teams and escalation relating to inflation, etc.

Table 6
Resource requirements, with illustrative spread over time, for the renovation of the United Nations Truce Supervision Organization compound in Jerusalem (Millions of United States dollars)

Project	$Total^a$	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Rezoning, demolitions, reconstruction and landscaping	7.1	0.1	1.4	1.1	0.9	1.1	1.2	1.0	0.2
Replacement of infrastructure and networks and equipment upgrades	16.9	2.0	4.9	0.7		0.7	6.3	2.2	0.2
Seismic retrofit and structural reinforcements across the compound	6.3			4.4	1.6	0.3			
Safety- and security-related upgrades	9.2	0.4	0.3	2.1		1.2	2.2	2.6	0.4
New office building	20.7		0.3	0.4	7.0	10.3	2.8		
Implementation project team	11.4	2.3	1.8	1.4	1.4	1.3	1.4	1.0	0.7
Total	71.6	4.8	8.7	10.1	10.9	14.9	13.9	6.8	1.5

^a Excludes cost escalation and contingency.

101. Based on the assessment conducted in 2023, a request under section 33 of the proposed programme budget for 2024 (A/78/6 (Sect. 33)) for a total of \$0.5 million was included both to fund an initial set of repairs (\$0.3 million) and to commission a technical survey to assess the compound's seismic risk vulnerability (\$0.2 million).

The seismic risk vulnerability assessment is a prerequisite for the implementation of the core project activities.

IV. Financing capital investments

102. In his report on the strategic capital review (A/72/393), the Secretary-General confirmed the criteria determining the projects to be submitted to the General Assembly as stand-alone, while others, smaller in scope, are to be included under section 33 to finance repairs, renovations and periodic upgrades required to maintain the habitability, operational resilience and security of the United Nations premises, buildings, facilities and ICT, as well as the safety of its personnel. Specifically as mentioned in his report, table 1 in the related report of the Advisory Committee on Administrative and Budgetary Questions on the strategic capital review (A/70/7/Add.43) confirmed the following factors to formulate a stand-alone proposal: size, cost, duration, complexity, type of construction and level of oversight required, as well as risk associated with the projects.

103. As mentioned above, the objective of the capital investment planning programme of work undertaken since 2022 is to enhance the process to ensure the systematic and comprehensive identification of investment requirements by area and location in a mid- to long-term timeline and to reliably derive implementation schedules with credible estimates; it is also aimed at establishing a desirable sequencing of projects based on risks, cost implications, etc. for the General Assembly to decide on the scope and the schedule of investment projects conducive to stable and predictable financing, bearing in mind the directions in its resolution 72/262.

104. The annex provides an illustrative schedule of projected financial requirements during the period 2024–2031, extended until 2034 at ECA, as indicated in footnote b to table 2, combining the projected requirements to complete the six ongoing major construction projects, the projected value of section 33 budgets until 2034, as well as the estimated requirements to finance the implementation of the capital investment projects included in the present report.

105. The cumulative expenditure projection for 2023 combining all construction projects and the approved section 33 budget totals \$163.3 million. This could rise to \$202.3 million for 2024, \$223 million for 2025 and drop to \$215.3 million in 2026 as several ongoing construction projects will be concluded during the period 2024–2025. It will drop further to \$190.8 million in 2027, \$141.8 million in 2028, \$100.3 million in 2029 and \$88.4 million in 2030 and \$78.6 million in 2031.

106. The addition of the new capital investment projects identified in the present report during the period 2026–2034 would allow the level of cumulative financing requirements for that nine-year period to remain largely at a comparable level to the financing levels of 2023–2025, allowing a stable and predictable long-term financial planning scenario. With the exception of the renovation of the Addis Ababa compound and the United Nations compound in Jerusalem, the other projects could potentially be presented as part of section 33, especially if their implementation is phased over a long period to maintain a stable investment level under section 33.

107. The Secretariat would welcome any guidance from the General Assembly on the submission of future resources requirements in relation to these investment projects.

V. Action to be taken by the General Assembly

108. The General Assembly is requested to take note of the report.

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Illustrative schedule of projected financial requirements during the period 2024–2031

Capital investments/construction projects

(Millions of United States dollars)

	Total	1 240.5	202.5	223.0	215.3	190.8	141.8	100.3	88.4	78.4
	Subtotal	309.9	-	20.0	53.3	56.6	51.8	44.3	46.4	37.5
12.	UNTSO renovations d	63.4	_	_	4.8	8.7	10.2	10.9	14.9	13.9
11.	Global upgrade safety and security services (excluding ECA and ECLAC) c	44.0	_	_	10.0	11.1	11.7	3.4	3.7	4.1
10.	ECLAC renovations	64.6	_	_	2.4	7.4	13.5	16.5	15.8	9.0
9.	ECA safety and security ^b	66.3	_	_	7.6	10.2	12.5	13.5	12.0	10.5
8.	Conferencing upgrade and standardization	71.6	-	20.0	28.5	19.2	3.9	_		_
	New projects (capital investments)			Year I	Year2	Year3	Year4	Year5	Year6	Year7
	Subtotal	930.6	202.5	203.0	162.0	134.2	90.0	56.0	42.0	40.9
7.	Section 33 regular budget, including repayment of strategic heritage plan loans (in addition to major construction projects) a	307.4	31.0	31.0	40.9	40.9	40.9	40.9	40.9	40.9
6.	ECA Africa Hall project	21.5	21.2	0.3	_	_	_	_	_	-
5.	ESCAP seismic retrofit project	6.8	6.8	_	_	_	_	_	_	-
4.	ECLAC North Building project	12.0	12.0	_	_	_	_	_	_	_
3.	Nairobi project conference centre	258.8	13.1	25.6	62.8	92.0	49.1	15.1	1.1	
2.	Nairobi project, A–J blocks	23.7	22.7	1.0	_	_	_	_	_	-
1.	Strategic heritage plan, Geneva	300.4	95.7	145.1	58.3	1.3	_	_	_	-
item	Existing projects	Total	2024	2025	2026	2027	2028	2029	2030	2031

^a (1) Section 33 regular budget includes a provision for the repayment of two loans from the Government of Switzerland as follows:

⁽i) SwF 125.1 million due in 50 yearly instalments of SwF 2.5 million. The first instalment was paid in 2021;

⁽ii) SwF 274.9 million due in 30 yearly instalments of SwF 9.2 million. The first instalment will be due in 2026 pursuant to an amendment to the original agreement (expected to be signed in the first quarter of 2024).

⁽²⁾ For indicative purposes, the projections under section 33 of the regular budget assume resources at the same level as proposed for 2024, before recosting. Starting in 2026, the projections are increased to include the instalments of the repayment of the second loan from the Government of Switzerland (see item (ii) above).

⁽³⁾ Swiss loan instalment figures have been converted from Swiss francs to United States dollars using the United Nations rate of exchange applicable from 2023 onwards (0.9272).

b The total of \$66.3 million does not include \$19.8 million in requirements for the period 2032-2034, detailed in paragraph 90 of the present report.

^c Resources for safety and security services upgrades in ECA and ECLAC are reflected in lines 9 and 10 of this annex.

d The total of \$63.4 million does not include \$8.3 million in requirements for the final two years of project implementation (see table 6).