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Addressing the deteriorating conditions and limited capacity of the conference services facilities at the United Nations Office at Nairobi

Report of the Secretary-General

Summary

The present report is the third report of the Secretary-General on the deteriorating conditions and limited capacity of the conference services facilities at the United Nations Office at Nairobi. It is submitted pursuant to section III of General Assembly resolution [75/253](#) B.

The report provides an update on work that has been undertaken since April 2021, following the issuance of the previous report ([A/75/716](#)). The United Nations Office at Nairobi hired a consultancy firm, which successfully concluded a comprehensive review of the cost estimates for the two scalable options for renovation and expansion of the conference facilities, options A and B, presented in the previous report and prepared a proposed project implementation strategy. Options A and B partially and fully, respectively, meet the additional capacity requirements of the conference facilities at the Office, and option B, which includes the renovation of the existing conference facilities, the construction of a new plenary hall and the construction of a multifunctional annex, is therefore recommended for implementation. Detailed information on the scope, objective and implementation strategy of the proposed project for option B is included.

In line with resolution [75/253](#) B, the report contains detailed cost estimates for the project to renovate and expand the existing facility, inclusive of trade costs, design and management fees and escalation and contingency and staffing costs. The Global Asset Management Policy Service conducted a comprehensive peer review of the cost estimates prepared by the consultancy firm, as well as an independent risk assessment of the project proposal. In addition, the United Nations Office at Nairobi developed a proposed project governance framework that is aligned with other similar capital construction projects recently undertaken by the Organization.



The General Assembly is requested to: (a) take note of the report of the Secretary-General; (b) approve the scope of the project under option B, its implementation strategy, its estimated overall maximum cost in the amount of \$278.9 million and the establishment of 12 temporary positions beginning in 2022; (c) appropriate an amount of \$1,995,900 under the proposed programme budget for 2022; and (d) establish a multi-year construction-in-progress account for the project.

I. Introduction

1. In accordance with General Assembly resolution [75/253](#) B, in which the conclusions and recommendations contained in the report of the Advisory Committee on Administrative and Budgetary Questions ([A/75/7/Add.37](#)) were endorsed, the two options presented in the previous report of the Secretary-General ([A/75/716](#)), options A and B, have been expanded and provide scalable architectural solutions in response to the organizational requirements identified by the needs assessment, as follows:

Option A Would meet the immediate and short-term projected capacity requirements for events with 7,000 in-person participants, with an estimated project area of about 59,100 m², including roads, pathways, landscaping and a new dedicated security building for conference events

Option B Would meet the long-term projected capacity requirements, as an expanded, scalable version of option A, for events with 9,000 in-person participants, with an estimated project area of about 67,700 m², including roads, pathways, landscaping and a new dedicated security building for conference events

2. Options A and B provide a specific design brief response to the United Nations requirements, developed through extensive stakeholder engagement, detailed assessment of the existing site conditions and a market study identifying needs analysis. The developed spatial calculations and financial estimates undertaken as part of the feasibility phase have been benchmarked against industry examples and standards for contemporary conference facilities. A range of test fit design layouts have been undertaken during the recently completed phase to ensure that the spatial requirements are correctly briefed and to allow for a variety of functional layouts to cater for a variety of function types. The project brief has been developed through consultation with the following key stakeholders: the United Nations Environment Programme (UNEP) and the United Nations Human Settlements Programme (UN-Habitat), as well as the Division of Conference Services, the Division of Headquarters Safety and Security Services, the Information and Communications Technology Services and the Facilities Management Section, inter alia, at the United Nations Office at Nairobi, whose contributions informed the project priorities, design concepts and organizing principles.

3. The core objectives of the proposed project are in line with the global objectives set forth in the strategic capital review in accordance with paragraph 12 of the report of the Secretary-General on the strategic capital review ([A/68/733](#)). The project is also aimed at providing new spaces that address the limited capacity of the existing facility in order to meet modern conference services requirements.

4. Options A and B both include: (a) a new visitor entry building and on-grade car parking; (b) a reconfigured internal security roadway; (c) landscaped circulation through a green zone to the upgraded conference buildings; (d) refurbished existing conference and support spaces; (e) upgraded central atrium circulation; (f) the removal of temporary demountable conference rooms located on the concrete roofs; and (g) a new plenary hall to the north of the existing plenary room, and engineering services upgrades to satisfy the requirements of the new spaces.

5. The Secretary-General considers that only option B fully meets the long-term projected requirements of the Organization. Whereas option A partially meets those requirements, and more precisely the requirements of the governing bodies of the two Headquarters entities located in Nairobi, UNEP and UN-Habitat, it would require that temporary facilities be erected during calendar meetings, which would not meet health and safety, sustainability or accessibility requirements and would not be cost-

effective. Option B meets all requirements, is cost-effective and is therefore the recommended option for implementation.

A. Background and master plan

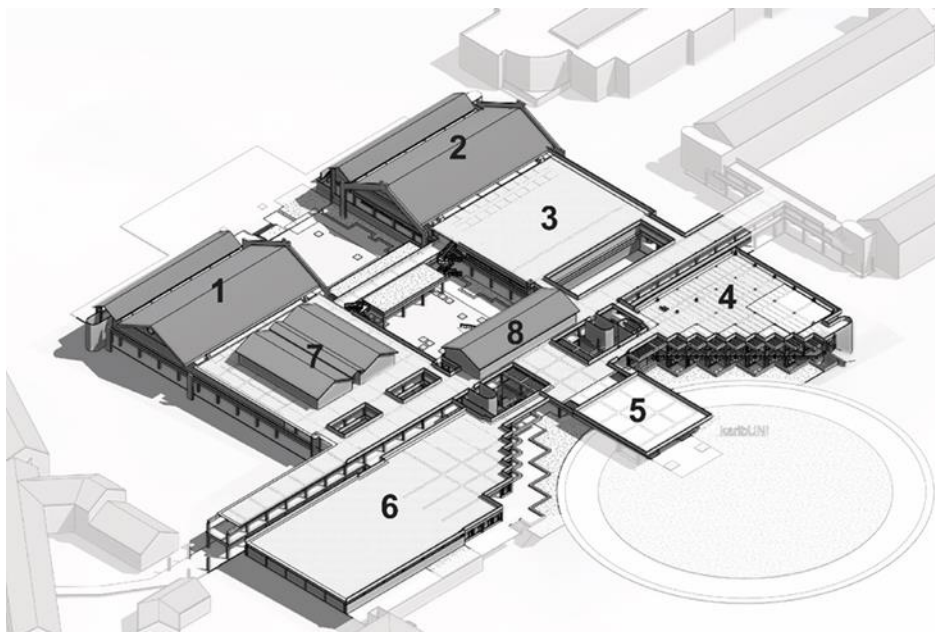
6. The most recent major investment in the conference facilities of the United Nations Office at Nairobi was made in the mid-1980s. Given that the useful life of buildings is limited,¹ and following a thorough appraisal of existing conditions, a capital construction project was developed to meet current conferencing needs and address foreseeable conferencing requirements over the next 25 to 30 years. In this regard, a life cycle maintenance programme for the conference east and conference west facilities of the Office was forecast in the report of the Secretary-General on the strategic capital review ([A/69/760](#)).

7. The United Nations Office at Nairobi is mandated to provide conference services to the two United Nations programmes headquartered in Nairobi. The Office's conference centre provides a full range of conference facilities to the United Nations agencies, funds and programmes located in Nairobi. Both the United Nations Environment Assembly of the United Nations Environment Programme and the recently instituted United Nations Habitat Assembly of the United Nations Human Settlements Programme have universal membership (193 Member States).

8. A schematic overview of the Office's existing conference facilities is presented in Figure I.

Figure I

United Nations Office at Nairobi conference buildings



Legend: 1: conference west; 2: conference east; 3: committee rooms; 4: library building; 5: main entry; 6: catering building; 7 and 8: rooftop committee rooms.

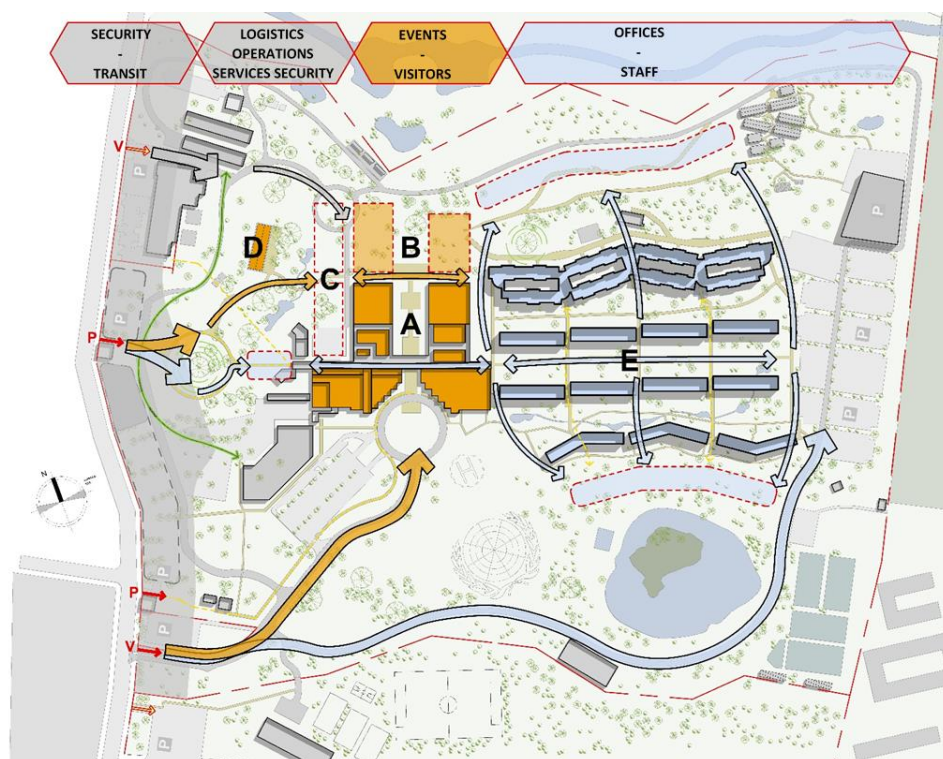
¹ The standard useful life or design life of a United Nations type A building is approximately 40 years. It is expected that a renovation project will be required within the first 25 to 30 years of life of a 40-year-old building to extend its useful life by an additional 25-plus years.

9. To confirm the full scope, maximum overall cost and implementation strategy of the project, the overall United Nations Office at Nairobi future master plan needed to be confirmed, given that the original master plan for the Office's Gigiri complex had been developed in the 1970s and the 1980s. That included the older office blocks constructed in the 1970s on the western side of the complex along United Nations Avenue, with a conference facility able to accommodate up to 2,000 participants in the centre of the complex, and the newer office blocks constructed in the 1980s, the 1990s and 2010 on the eastern side of the complex. However, following the completion in 2010 of the most recent major capital investment project, the new office facility that houses the headquarters of UNEP and UN-Habitat, it became clear that the Office needed to conduct a strategic capital review to determine future plans for the complex for the next 20-plus years.

10. In reports of the Secretary-General on the strategic capital review ([A/68/733](#) and [A/70/697](#)) two projects were confirmed as major strategic investments at the United Nations Office at Nairobi over the following 20 years: the replacement of old office blocks A–J and the modernization of conference facilities, which would need to be taken up in the future as a priority project.

11. The conferencing needs of both UNEP and UN-Habitat have significantly expanded since the original master plan for the complex was considered, in the 1980s, and continue to do so. For example, over 5,000 participants attended the most recent in-person United Nations Environmental Assembly, held in 2019, and the projection for future meetings is between 7,000 and 9,000 in-person participants. The current buildings, infrastructure and master plan layout for the United Nations Office at Nairobi complex cannot support this level of conference expansion and require a redesign. Figure II provides the master plan for the complex.

Figure II
United Nations Office at Nairobi master plan



Legend: A: existing conference centre; B: new plenary buildings; C: new multipurpose annex; D: exhibition and environmental park; E: office.

12. The legend for figure II shows the master plan for development of the existing United Nations Office at Nairobi compound. The location of the current conference facility in the events/visitors section, which includes the proposed expansion in the centre of the plan, represents option B and is explained further in the present report. Area D is the location of the proposed exhibition and environmental park. Area E comprises the components of the blocks A–J replacement project.

13. The grey security/transit zone is located along the western perimeter, on United Nations Avenue. The zone provides appropriate security standoff with the main access road to the complex, with the security infrastructure and visitor registration considered in this area, as well as additional car parking, which will be introduced in the area. The revised master plan shows the clear public/private separation for both pedestrian and vehicular access (yellow and blue arrows, respectively), allowing the site to continue to operate as an office complex even when hosting large United Nations conferences.

14. Consideration has been given to the upgrade and expansion of the conference centre. As mentioned above, the existing structure of east and west office blocks with a central conference centre was developed in the 1970s and has been superseded by ever-expanding needs for more office space, much more extensive logistics, operations and services requirements that the United Nations Office at Nairobi is expected to have and much larger and more complex and challenging conferences, with ever-increasing numbers of delegates, which have put a significant strain on the current compound layout.

15. Conceptual elements that were considered during the confirmation of the future master plan included the following:

(a) **Environmental.** The proposed conference annex multipurpose building to the west is optimally located, overlooking the blocks A–J location, which will be reclaimed and will revert to a prime environmental park with potential for exhibition areas, accessible at the front of the complex to both staff and visitors/delegates. The area has some of the most developed and beautiful trees at the complex;

(b) **Site.** Consideration has been given to the revised access routes that will also be required to support the conference centre;

(c) **Security.** Long-standing security issues on the western perimeter have been reviewed, including standoff, parking along the perimeter and the ability to ensure that all delegates and visitors park prior to pedestrian access search and security checkpoints. This would also allow the separation of a staff zone on the eastern side from a visitors/delegates zone at the centre of the complex, with minimal overlap between the groups;

(d) **Public/private separation.** The workflow to the conference/events area can be clearly separated from that of logistics and operations, with segregated access of internal and external visitors to the complex.

B. Objectives

16. The objectives of the project are to provide safe, accessible and exemplary sustainable conference and committee facilities at the United Nations Office at Nairobi commensurate with the standards provided at Headquarters in New York, the United Nations Office at Geneva and the United Nations Office at Vienna. The objectives are in line with those of other recent capital projects undertaken by the Organization as outlined in the report of the Secretary-General on the strategic capital review (A/68/733) and are as follows:

- (a) To meet industry norms relating to health and safety issues, including fire and life safety planning and systems design, fire suppression and fire alarm and fire exit planning;
- (b) To maintain the property value of United Nations premises, relating in particular to building life cycle replacement;
- (c) To meet industry norms relative to facility preparedness and design against potential natural disasters and emergency situations, such as earthquakes, tsunamis, hurricanes and typhoons;
- (d) To ensure compliance with all relevant regulations relating to persons with disabilities, including provisions concerning accessibility and technology;
- (e) To ensure that hazardous materials are removed from facilities;
- (f) To improve space usage efficiency by maximizing the use of available office and meeting spaces and minimizing the size of building support spaces, which is to be achieved by optimizing the use of available interior spaces and meeting facilities and providing flexible and functional spaces;
- (g) To modernize outdated major building systems, including mechanical, electrical, low-voltage electrical, plumbing and conveying and vertical transportation systems, in order to meet industry norms;
- (h) To move towards more energy-efficient facilities, specifically by reducing energy consumption, freshwater consumption, the use of non-renewable material resources and waste generation and by improving atmospheric and indoor air quality;
- (i) To keep disruption of the work of the United Nations to a minimum and to ensure business and operational continuity throughout any project implementation.

17. The facility is briefed to provide ongoing service to the governance and intergovernmental programmes of the two United Nations organizations headquartered in Kenya in a fully accessible conference centre. The centre will be designed and operated to a standard of environmental excellence in alignment with the ideals and objectives of the agencies for which the facility is mandated.

18. The project will enable major international environment- and human settlement-related meetings and conferences to continue to be held at the United Nations Office at Nairobi. The major renovation and construction are aimed at fully utilizing and integrating the refurbished existing buildings with an expanded area of new construction, consistent with the master plan for the Office site.

19. In addition to serving UNEP and UN-Habitat, a fully functional and modern conference centre at the United Nations Office at Nairobi is critical to support the programmatic objectives, overall mandates and activation strategies of the many other humanitarian, development and peacebuilding entities operating in and from Nairobi.

20. The risk of potential reputational loss that the United Nations faces by continuing to support the conference modalities required by UNEP and UN-Habitat using the existing ageing and undersized conference facilities is a core driver behind addressing the project as soon as is practical. In addition, the regional offices of the World Food Programme, the Office of the United Nations High Commissioner for Refugees, the Office for the Coordination of Humanitarian Affairs, the United Nations Children's Fund (UNICEF), the United Nations Office on Drugs and Crime, the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women), the United Nations Support Office in Somalia and the Office of the Special Envoy of the Secretary-General for the Great Lakes Region primarily seek to operate conferencing and committee events at the United Nations Office at Nairobi. The proposed new

facilities would help those entities to improve outreach to and communication with stakeholders and partners, as well as to strengthen their work with Member States.

21. A further objective of the project is to ensure business continuity and cater for the emerging client need for remote conferencing as well as for traditional in-person meetings. Whereas the long-term impact on conference modalities in a post-coronavirus disease (COVID-19) context has yet to be fully realized in the global community, the proposed project is aimed at providing a future-proof solution that will afford flexibility for the next generation of conferencing, convention and committee events, in whatever form they take.

22. The above-mentioned approach, through the implementation of modern remote and in-person conferencing infrastructure, would enable Nairobi to explore options for remote interpretation as well as other conference trends and innovations, advancing potential synergies and other cost-saving measures through the provision of conference services.

23. The project to upgrade the conference facilities takes into consideration the long-term master planning of the United Nations Office at Nairobi compound and has synergies with the existing blocks A–J replacement project. Although the two projects do not depend on each other, they have been developed in parallel and thus have a synthesis of approach. Lessons learned in the areas of sustainable design, supply chain, local materials selection and gained corporate knowledge are transferable between the projects. The current timelines for implementation of the projects have been planned so that the construction phases do not overlap.

24. A major aspect of the feasibility design phase was to ensure that the overarching vehicle and pedestrian movements across the United Nations Office at Nairobi compound were considered and that a long-term, secure and maintainable approach was defined as a key requirement in the project brief. The hierarchy of visitor versus staff movements was considered, as was the provision of sufficient space for the large volume of surge visitor movements, which is required to safely host events on the scale forecast. A defined standoff zone has been enabled between the publicly accessible United Nations Avenue and the project area. The re-establishment of the green zone between the entry and the conference facility provides safe and accessible paths of travel for visitors and staff alike.

Emerging conditions: COVID-19

25. Market industry analysts forecast that the annual cycle of international and regional conferences is expected to return to pre-COVID-19 norms within five years and that there will be no lasting or long-term impacts of the COVID-19 pandemic on conferencing, signalling a return to normal assemblies by the time the project becomes fully operational. The return to normal conditions (best practices) will be gradual, but is expected to be fully realized eventually, although the incorporation of new video link technologies and mixed in-person and remote meeting formats is now generally accepted as an option for conferences. The acceptance of the new modalities is seen to have the potential for generating additional event formats and increased market outreach for conference services, allowing content to reach a larger audience through new capacity, technology and social connectivity. Large-scale facilities will continue to be necessary and will remain the preferred operational model for assemblies with voting committees.

26. While the full impact of the ongoing COVID-19 pandemic on United Nations conference services has yet to be fully realized, the adaptations that have been made include the following: (a) allowing meetings and conferences with reduced in-person participation; (b) strict social distancing; (c) limitations on and rotations of essential personnel on United Nations premises; and (d) the provision by health services of

vaccines for United Nations staff and consultants. The adaptations have allowed some level of business continuity. Given the ongoing pandemic, there is some hesitancy to return to previous working conditions, as well as a level of comfort with working from home. Workplaces are acknowledging both the limitations and the potential efficiencies of remote working, rotating staff through shared office resources and connecting through technology, the Internet and videoconferencing.

27. The new level of comfort with videoconferencing and live-streamed communications has yet to be fully explored, but offers an exciting challenge and an opportunity for conference services to expand their online participation through new technological modalities that engage through their devices with participants, who can then share their individual experiences directly with a global audience. Contemporary conferencing on global issues such as climate change has a responsibility to deliver clear and understandable messaging to a much larger and diverse global civil society audience than in-person events could offer without technological change. Real-time social media connectivity must now be included as part of events planning for modern conferencing.

28. The impacts of COVID-19 on the design of physical spaces have yet to be fully explored. Increased heating, ventilation and air conditioning zone isolation, filtration and 100 per cent fresh air options are now considered basic requirements for facilities attracting a certain population density. More covered outdoor spaces, as well as greater flexibility to accommodate indoor activities in spaces with a mixture of indoor and outdoor components, are needed. The choice of materials needs to take into consideration increased durability, as well as ease of care and cleaning, to accommodate increased cleaning cycles and more harsh chemical cleaners. The increased use of chemical agents washing down drains, as well as ways to store and treat hazardous outputs from facilities before they reach nearby environments, needs to be considered in the design of wastewater systems.

II. Options for project implementation

A. Option A

29. Under option A, it is proposed that the existing conference facility be renovated completely by exposing the reusable building structure and fabric and reorganizing the interior spatial zones for improved connectivity, flexibility and optimization, complying with current building codes and international best practices. New infill levels, room divisions and construction areas on the roof level would increase the rentable floor area in the existing building from 3,200 m² to approximately 5,800 m², comprising smaller spaces, dedicated media studios and flexible use of furniture and room space. Delegates lounges, canteens and amenities would all be improved for better utility and for greater inclusion of conference participants and United Nations Office at Nairobi staff. Investment in the conference facilities at the Office would be an investment in the heart of the campus, linking the offices and social spaces through the core functions of the United Nations and presenting a welcoming public face to members of civil society, inviting participation. A planning diagram of option A is presented in figure III.

Figure III
Option A planning diagram



30. Construction work to the north of the existing building would provide two new plenary halls with 2+2 and 1+1 seating arrangements, as well as new lounges, halls and meeting rooms to support functions related to the United Nations Environment Assembly and the UN-Habitat Assembly. As a linking concept between old and new, the existing central atrium is to be enclosed and remodelled as a new arrival hall that could be utilized for ceremonies and functions or as breakout space for active sessions. The central space would provide an open circulation and meeting area that is easy to understand and to navigate, providing clear visual circulation clues for travel between levels and incorporating green building concepts that connect the buildings with the exterior grounds and the renovated rooftop.

31. The new halls, atrium, rooftop and renovated spaces would be of a scale and standard comparable to the conference centres in the other duty stations, with state-of-the-art conference services and information technology and audiovisual support for interpreters, including infrastructure for centralized control and remote access interpretation. The facilities would include automation, allowing them to be run with minimal staff, with robust infrastructure that could be easily connected and upgraded

within normal technology replacement cycles (typically seven years). A connected virtual building would provide dedicated media and live-streaming support to all spaces, linking meeting rooms and large forum gatherings with other sites around the world and inviting participation by members of civil society in United Nations events. The infrastructure would also support the business continuity of the United Nations Office at Nairobi by providing a resilient event space that could remain operable with minimal staff during a civil unrest event or a global pandemic, switching to virtual operations, or a hybrid of both, when in-person attendance is not safe.

B. Option B

32. Option B is substantially similar to option A in that it provides a proposal for the renovation of the existing conference facilities and includes new construction work. The primary difference is the scale of the new construction work and the impact that it would have on the site plan, claiming new ground to the west of the existing conference facilities and including a new series of four flexible, lightweight multi-use halls that could be scaled to accommodate an additional 2,000 in-person attendees and reverting to a covered green space between peak events. The option would be enabled through careful master planning in conjunction with the project to replace office blocks A–J at the United Nations Office at Nairobi. The additional construction would include multipurpose halls and assembly areas that would extend the capacity of the site to meet projected attendance figures for United Nations Environment Assembly and UN-Habitat peak events in the future.

33. Option B provides the flexibility to use naturally ventilated spaces to the west of the facility, which would remove the requirement for future temporary structures leased for surge numbers of participants in major conference events. Option A therefore would cater to the immediate conference needs of the Organization, while option B would cater, in a flexible, mixed-mode approach, to the projected conference needs and could be scalable over the upcoming 20 to 30 years.

34. To ensure the economy of the scalable option, option B includes lightweight construction and flexible multipurpose space allowances; however, increasing the scale of the conference facilities by 2,000 in-person participants would require a commensurate increase in the site services capacity for water and power. If option B were to be implemented at a later date, there would be a risk of abortive work (temporary work that would need to be demolished and/or reperformed). A planning diagram of option B is presented in figure IV.

Figure IV
Option B planning diagram



Environmental sustainability, options A and B

35. A core principle of options A and B is to include exemplary construction for environmentally sustainable design, upholding a best practices approach through which the goal is to deliver, as far as possible, a refurbished and expanded conference facility with a smaller environmental footprint than that of the existing facility.

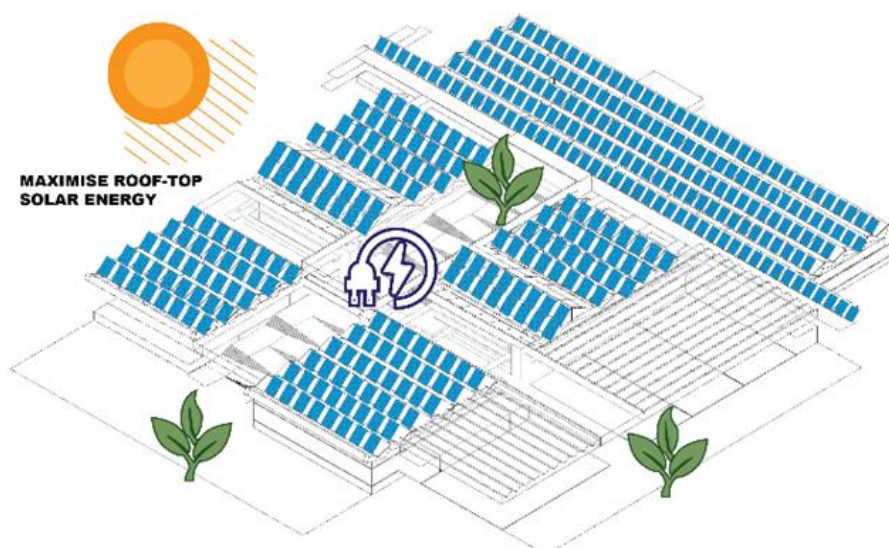
36. Through the implementation of holistic green building and urban design strategies from the earliest design stages through those of documentation and construction, the facility could serve as a best practices case study on the region with regard to its typology. The embedding of those strategies in the core project objectives is a key requirement for the project with regard to delivering innovative and engaging conference experiences.

37. Campus infrastructure is a key contributor to the overall performance of any building, in particular with regard to energy and water consumption and waste. Greater levels of engagement can be achieved when key systems that contribute to these environmental credentials are brought to the fore. This can be achieved through the use of digital technologies that display key performance metrics in a visually engaging and readily accessible manner, thus enhancing user experience and promoting understanding and appreciation.

38. The project is aimed at, as far as possible, achieving a net zero outcome for the conference facility. “Net zero energy” most commonly refers to net zero carbon emissions, in alignment with several Sustainable Development Goals: Goal 7 (ensure access to affordable, reliable, sustainable and modern energy for all), Goal 11 (make cities and human settlements inclusive, safe, resilient and sustainable) and Goal 13 (take urgent action to combat climate change and its impacts). It is proposed that the operation of the facility achieve net zero carbon emissions. To achieve that ambition, the project will, among other things, take into consideration operational and embodied energy and carbon reduction, renewable energy production, peak energy demand, supply resilience and carbon offsets. Figure V provides an illustration of one of the strategies that will be employed: placing solar photovoltaic panels on the roofs of both the existing and the new buildings, which are ideal for this purpose, given their low-rise construction and large area.

Figure V

Maximizing renewable energy sources by using solar panels



39. A reduction of operational energy consumption and carbon emission is a key first step to achieving carbon neutrality. Under the project, it is proposed that a cohesive suite of initiatives that would significantly reduce energy consumption when implemented together be incorporated, taking into consideration local conditions, local knowledge, materials, operational capacity and opportunities, as outlined in table 1.

Table 1
Local factors critical to energy consumption

Local daylight, artificial light and controls	Thanks to its location, Nairobi has access to excellent year-round levels of daylight. Operational energy and carbon can be significantly reduced by making full use of this resource in conjunction with the optimization of appropriate passive and active controls that maximize access to natural light through the use of open-air design, such as the incorporation of atriums, floor plate depth, glazing height and aperture, lighting shelving, skylights and light tubes to draw sunlight into workspaces. Natural light is balanced with artificial light – such as light-emitting diode lighting and “smart” digital lighting controls for daylight, occupancy and flexible scene and lux level controls – to support the optimal mood and functionality of the space.
Local ventilation and air conditioning	Nairobi’s climate is mild, with no dry season and warm (but not hot) summers. Consequently, there is ample opportunity for natural ventilation. Significant energy savings can be achieved using a mixed-mode ventilation approach in conjunction with direct outside air, namely, a hybrid air conditioning system employing, among others, indirect evaporative cooling and/or free cooling fully controlled by a building automation system. Ceiling fans will be used where possible to extend the time of operation without mechanical cooling.
Indoor air quality	The COVID-19 pandemic has placed ventilation and the airborne transmission of pathogens in the spotlight. The United Nations conference business model is particularly susceptible to pandemics owing to high dependence on international travel. To ensure long-term viability, the project is aimed at employing best practices ventilation and air quality monitoring strategies that will increase resilience in the face of future pandemics.
Building zoning and controls	Most spaces in the project will experience transient and irregular near-capacity electrical load. There is therefore significant opportunity for services to be inactive when not required. To achieve sustained significant reductions in operational energy usage, careful consideration will be required to implement “smart” sensor technology – namely, occupancy sensors and/or building automation systems – with appropriate controls strategies to intelligently zone and ramp specific services up and down on the basis of need.

40. Renewable energy generation is a key factor in achieving carbon neutrality. Once operational energy demand has been reduced as much as possible, the next step is to meet that demand with renewable energy generation. Options have been considered for renewable energy generation, including roof-mounted solar photovoltaic panels and geothermal and hydrogen energy, as locally available, economically sustainable and maintainable. Solar photovoltaic energy is currently the most cost-effective, given that the project comprises over 14,000 m² of floor space and a similar amount of roof space, and annual solar photovoltaic generation capacity is estimated at 1,800 megawatts.

41. High peak electricity demand during conferences makes the facility more vulnerable and less resilient because demand (in use) would not be met entirely by a solar photovoltaic system. During peak demand, supply would be met by a combination of solar photovoltaic municipal supply and sustainable generator backup. The project would, as the design progressed, include the evaluation of strategies for reducing peak demand and increasing energy resilience using energy storage.

42. The project is aimed at reducing per capita water consumption, which is aligned with Goal 6 (ensure availability and sustainable management of water and sanitation

for all). The water consumption of the redeveloped conference facility, including the new and refurbished portions, will be lower than that of the existing conference facility. The potential for collecting, treating and storing water, as well as for installing dedicated reticulation so that toilets and urinals are flushed exclusively with collected water, will be evaluated as the design progresses. Rainwater harvesting, retention and reuse will be achieved through the project, adding to the existing infrastructure, to be used for above-ground irrigation.

43. Achieving reduced per capita water consumption would be highly instructive for the broader community and yield benefits in relation to Goal 3 (ensure healthy lives and promote well-being for all at all ages) and Goals 6, 11 and 13. The project's approach with regard to the design and implementation of the engineering outcomes necessary to achieve reduced water consumption will yield insights into how to take positive action to protect water resources in Kenya.

44. The re-use of existing buildings is a cornerstone strategy in that the existing embodied energy contained within them is used for another life cycle, thereby reducing the requirement for new structures. A detailed technical assessment of the integrity of the structure and fabric of the existing buildings will be completed by the end of 2021. It appears that, while some small-scale structural remediation might be necessary, the superstructure is generally in good enough condition to be reused.

45. Although significant quantities of waste are ordinarily generated during a typical construction project, this project is aimed at minimizing the quantity of waste put into landfills, with a target of recycling 80 per cent of construction waste. The initiative is aligned with the United Nations Office at Nairobi facilities management construction and demolition waste initiative, which commenced in 2021.

46. The project will be specifically aimed at reducing waste generation during the operational phase and will therefore need to facilitate the separation of recycling material from landfill material at the point of disposal for conference participants. The initiative will serve to expand the existing recycling programme of the United Nations Office at Nairobi, which routinely recycles over 95 per cent of office-generated waste. It will also demonstrate how positive user behaviours will be reinforced so that recycling is maximized.

Accessibility, options A and B

47. Another core principle of the proposals provided by options A and B is of universal accessibility to safely and securely meet the needs of the anticipated capacity of the United Nations Office at Nairobi conference centre. It is intended that, while the new facilities will be expected to adhere to international standards and best practices principles in terms of accessibility, the project is aimed at exceeding code compliance and being a functional demonstration of mainstreamed universal access, including best practices.

48. A universal access design approach will be adopted during the project – to provide a physical environment that promotes inclusion and meeting the needs of all persons using the facility equitably, regardless of their abilities. To establish a definition of universal access for the project, it is important to consider the principles of universal access within the context of the Convention on the Rights of Persons with Disabilities (2007), the Goals and the United Nations Disability Inclusion Strategy (2020).

49. Specific to universal design and accessibility are Goal 9 (build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation) and Goal 11. Direct reference to disability is made within Goal 10, target 10.2, which promotes the social inclusion of people with disabilities. The United Nations Disability Inclusion Strategy, in turn, provides the foundation for disability inclusion

through all pillars of the work of the Organization, including physical access during all construction projects. The Strategy was developed to assist Member States in achieving the principle of leaving no one behind of the 2030 Agenda for Sustainable Development. The Strategy will be followed as a core project objective to mainstream disability, as well as to use a human rights-based approach as a means of achieving the inclusion and empowerment of persons with disabilities.

50. Currently no legislative protocol is applied by the United Nations regarding universal access to conferences and meetings in the United Nations system. As a result, under the project, consideration of an international best practices approach to universal access design is recommended. The establishment of an international best practices framework of building standards for the Office's conference centre upgrade project will provide a well-considered approach to universal access in keeping with the overriding aims and objectives of the Convention on the Rights of Persons with Disabilities, the Goals and the United Nations Disability Inclusion Strategy. Analysis has been completed to determine the appropriate legislation to be applied within the upgrade project on the basis of achieving an international best practices approach to accessibility that exemplifies universal access.

51. The project is aimed at providing universal access and developing a baseline assessment and framework within the design to develop a truly inclusive environment. Existing building conditions that clearly highlight constraints on universal access will need to be considered and addressed as part of the overall design. The universal access baseline assessment would involve a full physical access audit of the Office's conference centre and the surrounding infrastructure to identify items that affect the independent access of people with disabilities to and within the building. Accessibility in the external environment is aimed at maximizing usability for all users, regardless of disability, which can be challenging because it relates directly to the natural site topography and the existing infrastructure.

52. The upgrade project offers an opportunity to expand universal access beyond the building parameters and to promote inclusion within the campus. The duty of care for people with disabilities with respect to delegates visiting the conference centre begins upon their arrival at the Office's campus, and a similar journey/experience needs to be afforded to all people visiting the campus. As a result, through the project a system of paths has been created that provides a continuous connection between facilities for all users, thereby realizing universal access across the campus.

53. In the adoption of an international best practices approach to the provision of accessibility in the upgrade project, there need to be provisions for all disability groups, and not only the provision of physical access. To promote the concept of international best practices in the project, the principles and goals of universal design should be considered to be a means of achieving inclusion. "Inclusive architecture" refers to any space that can be seamlessly used by all the user groups possible in that particular context. Hence, the main objective of truly inclusive design must be to make spaces as barrier-free and convenient to use as possible.

54. In many cases, the key to a truly inclusive internal environment is the journey. The journey through the building should be the same for all users and should embrace all abilities and include all facilities and amenities. It should offer a range of choices with respect to preferred access routes, use of amenities and general participation. Such choices are the key to maximizing participation.

55. Universal access encompasses more than accessibility in a project of this nature that has an international occupancy group that includes a range of languages and cultural backgrounds. The focus should not only be on physical access throughout the building but also on wayfinding and information and communications technology. In terms of universal access, six main factors are considered critical to the journey

during the project: (a) vertical transportation; (b) amenities; (c) accessible seating in conference rooms; (d) wayfinding; (e) information and communications technology; and (f) the accessibility centre. They are discussed in table 2.

Table 2

Factors critical to universal access

Vertical transportation	Vertical transportation is a major consideration. The way in which people move through the various levels and key areas of the building is a key factor in realizing universal access. The central plaza currently offers a grand staircase, but the accessible route is not located close to it and does not achieve an equitable experience of the journey through the building. It is recommended that a choice of vertical transportation options be provided so that user-specific needs and preferences are catered to.
Amenities	A range of factors needs to be considered in the provision of inclusive amenities in accordance with universal access. A range of options should be available to offer choices in convenient locations to persons using the building. Amenities need to cater to a wide range of users, including persons with disabilities. Gender-neutral restrooms should be provided in addition to gender-specific ones.
Accessible seating in conference rooms	Accessible seating needs to be provided in conference rooms to ensure equitable access for all. In considering accessible seating, the project deferred to General Assembly resolution 73/341 , in which it was stated that provisions for accessible seating should be made upon request by a delegation by changing the seating order in such a way as to allow the requesting delegation to move to the closest accessible seat from the one that it occupied in accordance with the order established for each session of the Assembly, and that the seating order for the rest of the delegations was moved by one seat.
Wayfinding	The design of the main plaza has been used as a tool for wayfinding as a result of its central location, main axis through the building and visibility from multiple points throughout the building, as well as because it provides a reference point through its landscaped gardens and water features.
Information and communications technology	Information and communications technology is an ever-evolving area that comprises any communication device. Through phones, computers and other devices, a range of applications promote accessibility and achieve universal access. Within the built form, infrastructure (e.g. Wi-Fi) needs to be integral to the design and construction process to ensure that the technologies can be realized by persons reliant on them for communication purposes.
Accessibility centre	The accessibility centre, through its various state-of-the-art assistive physical and information and communications technology services, will support the inclusion and greater participation of persons with disabilities in meetings of the Organization.

56. While providing an inclusive environment for all users and achieving a level of accessibility in accordance with international best practices is a design goal of the conference centre upgrade project, that goal may not be achievable in some areas owing to existing building conditions. Therefore, a performance-based approach to accessibility will be adopted to ensure that the design outcome is an inclusive one and that, experientially, the same outcome is achieved.

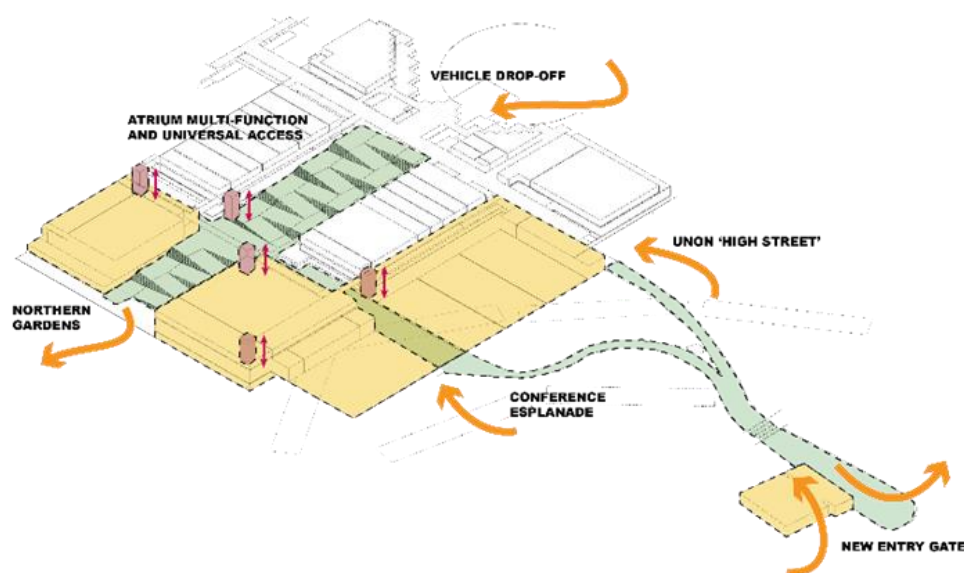
Site facilities, infrastructure and planning

57. Options A and B both include upgrades to security and site infrastructure, site paths and roadways and landscaping that support the buildings at either scale and comply with accessibility guidelines.

58. As shown in figure VI, the new construction will connect the west entry gate to the centre of the United Nations Office at Nairobi complex, linking the heart of the conference facility along a new esplanade to the atrium and other Office circulation paths. This will enable the Office's existing "high street" pedestrian spine to remain the primary site circulation path for Office staff and provide separation for circulation between conference attendees, which can overwhelm the campus on event days. A separation of key pedestrian movements will enable the campus to remain functional while conferences are in session and support links with the existing circulation strategies.

Figure VI

Site entry and conference circulation linking to axis and centre



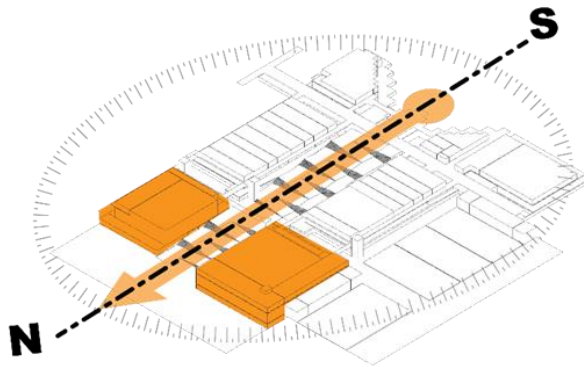
59. Options A and B both include a new dedicated security entry on the western boundary, with a new garden pathway linking to the conference centre for pedestrian access. A new conference pedestrian entry has been proposed to accommodate multiple lines of control and entry for large populations. The new building will provide space for bus and vehicle drop-off, attendee registration, badging, event day processing and security screening. The building will need to comply with all current guidelines and regulations for blast protection, separation and observation. A new 400-space visitor and staff car park is proposed at the western boundary, which would provide an added security buffer to the western perimeter and improve the visitor experience.

60. The security reconfiguration of the new conference pedestrian entry has provided a new entry point to the campus and thus enables excellent geographical separation of delegates and those who arrive through the southern vehicle gate from all other event attendees, staff and contractors. The services entry to the north will be provided with the security system infrastructure necessary to operate independently of the main entry gate.

61. Master planning connections and established axes have been carefully considered to organize the campus and link buildings and precincts to paths of travel. As shown in figure VII, the conference/campus spine (north-south axis) is a key part of the original organizing framework for the campus. The recognition of that element, as well as its integration into the new conference facilities, will respect the original planning principles and follow the mirrored layout of the existing conference centre.

Figure VII

Conference/campus spine, honouring the central axis in the planning of the centre

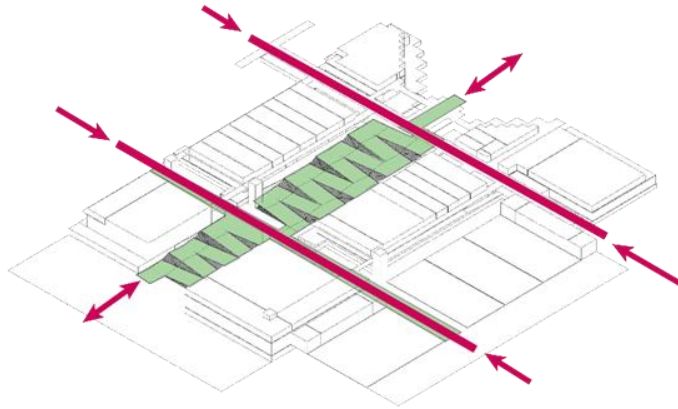


62. The east and west wings of the existing conference centre form the outer edges of the new development. The central axis will be the key orientation device for users of the space, remodelled to provide a universally accessible 1:20 ramp with supporting elevator access and new weather protection that allows filtered natural light, natural ventilation and multifunctional utility as a 2,000-person gathering zone for opening and closing ceremonies during events. The space can be changed back to a tiered garden seating area, contributing to the community heart of the campus.

63. Circulation strategies have been planned to manage movement and minimize disruption during capacity events. The Office's existing "high-street" pedestrian spine remains the primary site circulation for Office staff and provides separation for the circulation between conference attendees, which can overwhelm the campus on event days. A new secondary street will provide an accessible landscaped corridor of movement for pedestrians, connecting the western gardens through the atrium to the north and south. A separation of key pedestrian movement will enable the campus to remain functional while conferences are in session and support links with the existing circulation strategies.

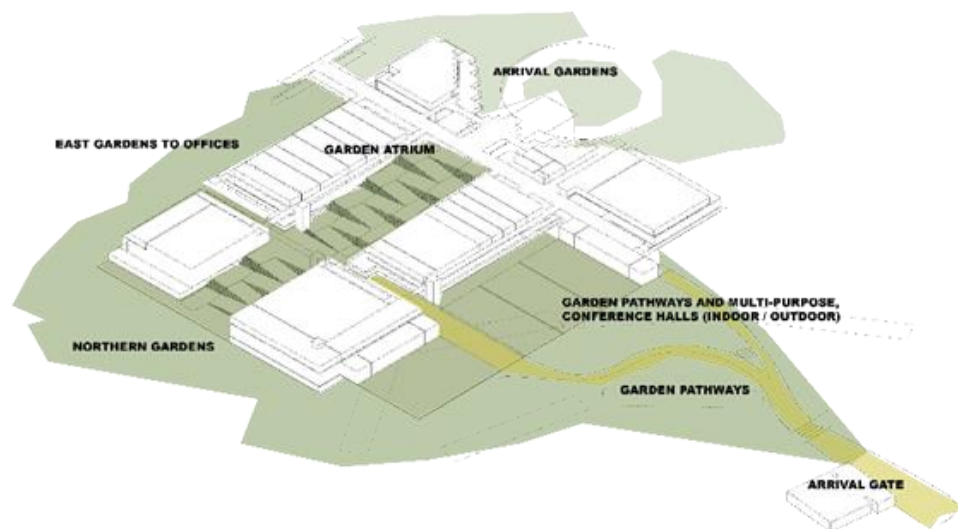
64. The Office's master plan requires that the "high street" remain the primary circulation strategy for the compound, respecting the linkages between east and west and setting up the north-south axis. The new conference precinct will seek to provide a secondary option for pedestrian access that will support this primary site arrangement while remaining wholly functional for conference events and separation of the office and convention roles of the site.

Figure VIII
Central north-south circulation axis and east-west circulation “streets”



65. The opportunity for continual connection to the natural environment is a core characteristic of the Office site, and the project has focused on opportunities within the building, throughout circulation areas and in connecting precincts to capitalize on this. The central location of the conference facility in the Office site invites all sides, and the central areas, of the facility to engage continually with nature, essentially inviting the outdoors inside where possible and visually connecting the indoor areas to the adjacent natural landscapes. Circulation paths can engage directly through and with the outside natural environment.

Figure IX
Conference centre connections to natural landscapes



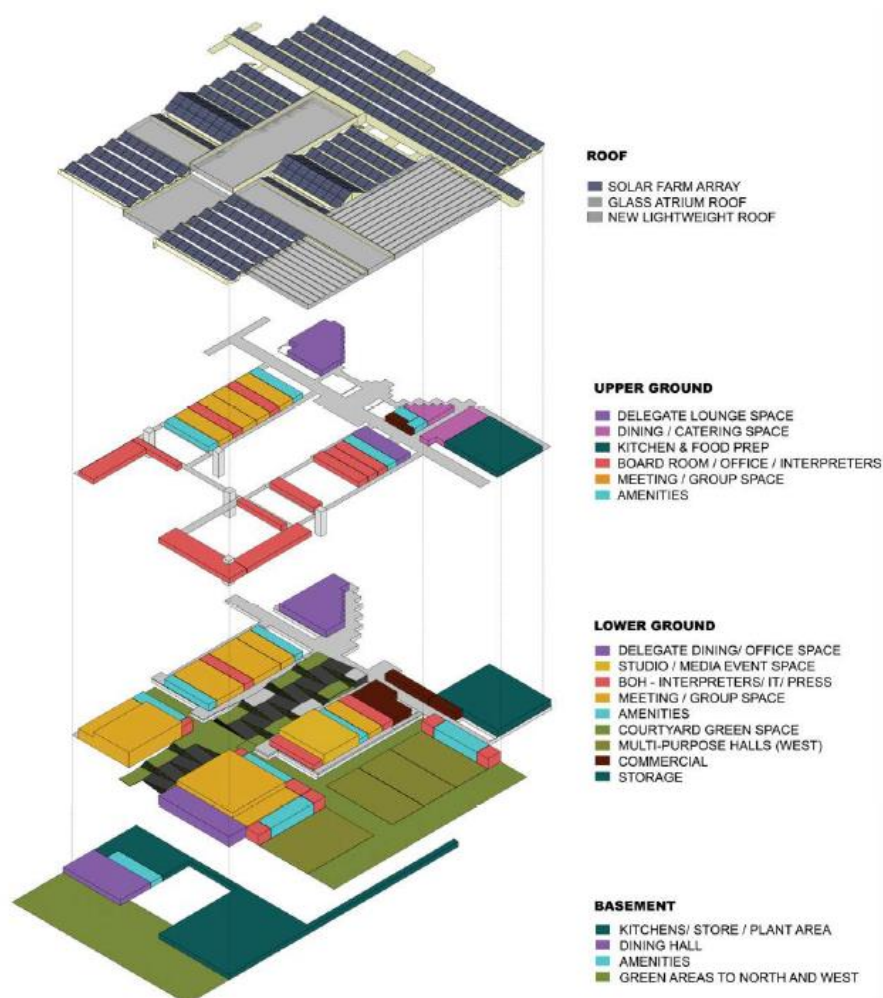
66. To visually and functionally link the old and new facility spaces, a single legible roof profile has been proposed to span the complex and provide the structural framework for rooftop solar power. Through the atrium, a single concept roof can link the old and new buildings, provide a visual link to the northern aspect and even give kinetic expression through light and colour for the environmental actions of the facility (sustainable power generation, waste and power consumption, energy consumption and other “green” systems).

Scope of the renovation and new construction works of the conference building

67. Both option A and option B make use of the existing conference building, surrounding site and reusable structures as a proposal for a re-planned facility that optimizes internal spaces and completely renovates all building fabric and services to extend their design life, ensuring compliance with all current building standards. New construction work will provide an increase of capacity to meet demand with an additional floor and roof level proposed over the existing building footprint, two new plenary halls and support spaces to the northern end, and a new dedicated conference security building on the boundary with accessible paths of travel around the site and through the buildings.

68. Internally, the renovations of the spatial programme in options A and B are proposed over three existing levels, utilizing both the east and west wings and improving the utilization of space over the existing large free-spanning floor plates. The subsequent form generated by the new construction extends the central atrium zone, which will accommodate all vertical circulation and edge breakout spaces through a visible network of ramping pathways and vertical gardens organized around pedestrian movement. The covered atrium will also serve as a new programmable space, complemented by lounges and gardens over levels. With a new covered glass roof connecting with the arrival areas, it will allow both natural light and breezes to permeate. This living atrium and green-roof concept will provide an iconic and centrally unifying element between the old and new facilities.

Figure X
Scaling and organization of scheduled spaces within the existing halls



69. The existing double-height, voluminous plenary halls (conference rooms 2–4) will be divided both vertically and horizontally as a purposeful measure to increase the programme of usable rooms and make the most of the existing envelope. Plenary hall 1 is to remain as a double-height volume to accommodate a new flexible-use media auditorium. Spaces throughout the existing building will be divided up to support a programme of new smaller conference rooms and support spaces, with flexible-use arrangements supported by new compliant amenities and service spaces, accessible paths of travel, delegate committee and meeting rooms, offices, lounges and holding areas. With this division of space, each floor plate will be carefully arranged for maximum flexibility and to adaptively facilitate a variety of configurations and future expansion opportunities.

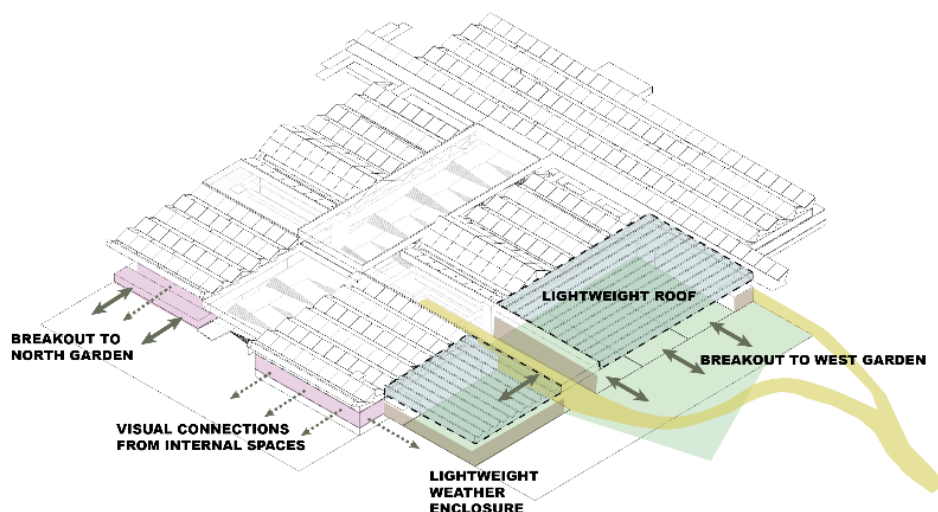
70. The proposed construction work consists of two new plenary halls of separate sizes to accommodate both 2+2 and 1+1 assemblies, making use of the valuable real estate and gardens to the north. The new buildings will form up as northern extensions of the east and west wings and extend the atrium connections to the northern gardens.

71. The additional programme proposed in option B is provided as a scalable option up from option A. This includes the creation of lightweight flexible-use, multi-

functional spaces that will cater for an additional 2,000 in-person attendees, increasing the total number to 9,000 in-person attendees. This addition is aimed at increasing the programme of usable spaces and therefore requires additional land to be claimed within the scope of the project. A suitable site to the west of the existing building has been proposed, aligning with the western edge of the building.

72. The buildings proposed in option B will use a minimal structural profile, simple weather cladding and sustainable materials, creating attractive spaces that can meet the needs of the major conferences, expand the programme of usable spaces for the facility and completely remove the need for temporary structures during major events. The spaces will utilize false floors for service distributions, ceiling rigs for lighting and sound with high potential for different arrangements, and truss systems for long spans and suspensions of services to cover every corner of the space. Permanent service spaces and secure storage rooms will ensure that the main spaces can be “open concept” and as low-cost as possible. When not in use, the buildings can be opened up as large open-roofed pavilions, creating indoor/outdoor spaces with the western landscape.

Figure XI
Multifunctional spaces with connections to gardens



Planning and configuration of conference spaces

73. The vision for the Office is that the spaces created in Kenya can become a virtual hub for connecting this location and the in-person activities with much larger civil and professional audience participation. The facility will provide state-of-the-art event spaces and, through an extensive Internet and broadcast infrastructure, the means to connect between locations globally, for live events and remote participation, and to link the experiences of in-person participants with this global observer community.

74. Both project options identify the need for lightweight but permanent facilities that can respond to a variety of uses, accommodating large numbers of participants and providing the essential spatial flexibility to meet the UNEP and UN-Habitat programme. Without that flexibility, the Office facility would remain reliant on temporary structures to accommodate the large-event populations and programmes. The flexible-use nature of conference facilities suggests that large free-spanning floor plates (no columns in rooms) would provide the most suitable spatial flexibility and also work as an extension to the existing structural logic of the current conference facilities. Taking into account considerations for universal access, the large, high-

utilization conference spaces would be better placed on the natural ground plane and should link easily from the central ramping pedestrian atrium.

75. The planning, arrangement and maximum size of conference spaces, committee rooms and meeting rooms are to be designed to satisfy the peak utilization of sessions during the UNEP and UN-Habitat mandated conferences. Following such events, the utilization of the large spaces may be reduced or there may be a greater number of events with around 1,000 participants requiring one or two large spaces, which would then be better supported by a series of smaller spaces.

76. Configurations have been rigorously tested to ensure that capacity can be met while continuing to provide flexible multi-use spaces. The plan for the Office is to create large committee and meeting rooms with 200-person and 128-person capacity that can also be rearranged for smaller configurations, which could be organized in preparation for events to match the programme requirements. For example, the 200-person committee room could be arranged with a central "O" shaped desk and two secondary rows behind, which could be elevated. Alternatively, the same size room could be divided, using automatic wall partitions and infill floor sections, into four smaller meeting rooms for 30 to 50 persons and still maintain the same information technology and audiovisual and conference services.

77. Flexibility in the catalogue of available rooms and the combinations of rooms that can be provided across the facility is also needed to ensure that the facility can meet the needs of the primary mandated conferences and the other schedule of events that can be attracted to Kenya. In addition, if the target utilization rates are to be met (70 per cent utilization across the facility), there will have to be reasonably fast transitions between different room set-ups without lengthy switchovers to reconnect the rooms or disconnect services. Well-coordinated information technology and audiovisual linkages between rooms will expand in-room services and connect in-room resources between sessions and between locations either in the building or remotely. In addition, planning and design for modular furniture, pre-planned room configurations, service linkages and storage for unused furniture are key to allowing rapid transformation and transitions between events to maximize flexibility.

Figure XII

Flexibility through multiple arrangements using functional room sizes

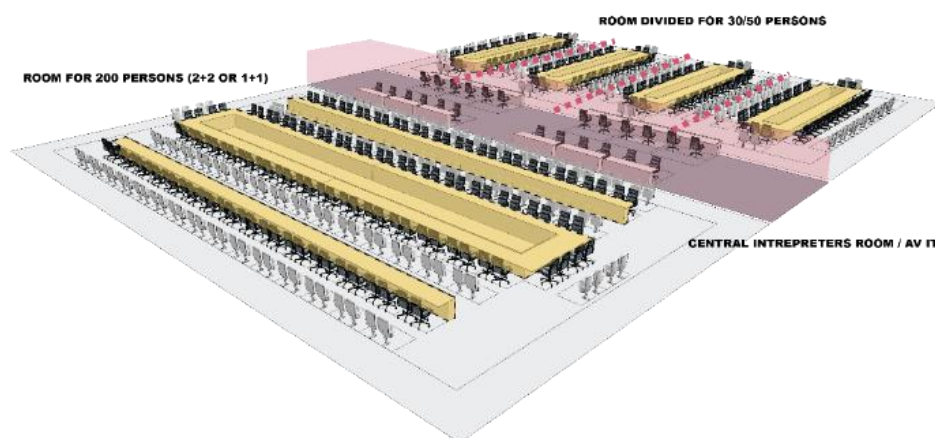


Figure XIII
Flexible media space and hall

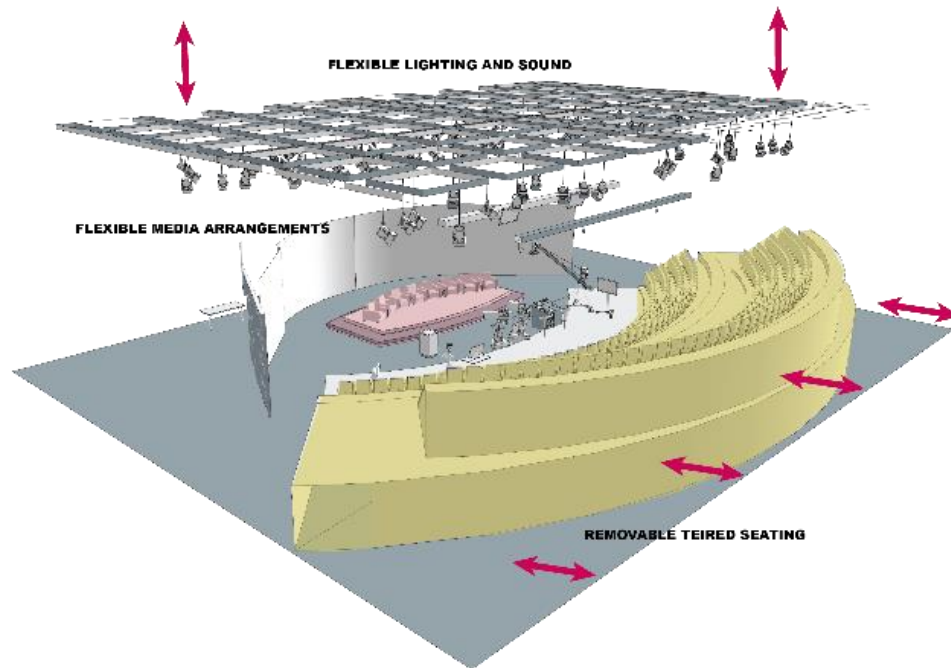
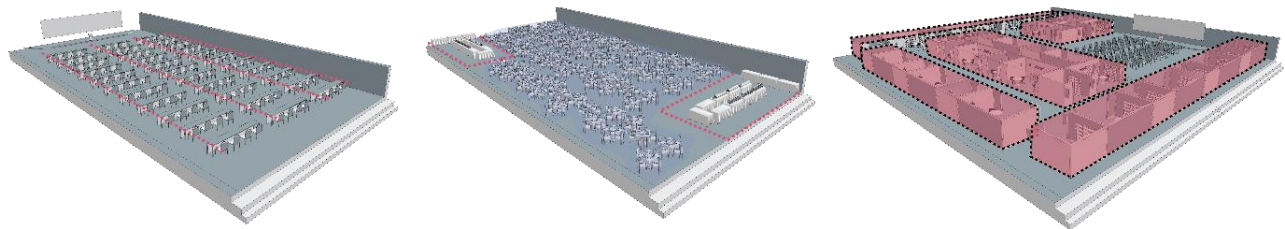


Figure XIV
Western multipurpose halls with flexible arrangements: auditorium, catering, exhibition and convention



Serviceability

78. Similar to a hotel, a key planning strategy is to connect the servicing and back-of-house operations on separate circulation plans to ensure quick delivery of catering, room equipment, deliveries, staff amenities and other activities that support the functions of the centre that are better unseen but key to quick seamless service delivery. The existing building has substantial areas for kitchens, storage and catering that need to be renovated for a higher service functionality, better linkages to the existing building and new linkages to the proposed northern and western buildings. These core service spaces will need to utilize secondary service areas or "satellite" areas for food service, loading zones, vertical circulation and secondary circulation strategies. An existing service road to the north of the development site services the current conferencing facilities. This access route would be extended and modified as required by the extent of the new construction for unimpeded access by service vehicles and for service deliveries. Ease of access for service vehicles to service areas and loading docks is critical for efficiency.

C. Implementation strategy

79. The potential for future growth can be a scalable development, providing greater flexibility and capacity. The massing of both options (A and B), while driven by functional requirements, can also be implemented in stages (B following A) to meet the immediate and then future projections. Priority has been given to a new construction to the north by utilizing the sloping topography and the availability of a vacant area. The carpark space located to the west of the existing facility provides space for further development, which could be undertaken at the same time or during future construction and expansion of the facility. The scale and alignment of the proposed building respond to the existing structures and do not impose on the surrounding sites and existing facilities.

80. The proximity of the project site to other Office project areas has been considered. The demolition of office blocks A to J to the west of the conference facility has been incorporated into the strategic master planning, allowing for an improved conference arrival sequence and staging of the Office site. The new office construction area would be isolated from the conference facility and could maintain programmed operations with clear uninterrupted access. Both project areas would rely on common shared Office services supply for power and water and would need to manage and share the resources. The conference facility scope of work does include upgrades and increases in capacity for water services and would therefore need to manage the disruption to the Office and the other project areas. That could be achieved through suitable staging and supply management.

81. The implementation options for construction for the works outlined in option A and option B are set out below.

Figure XV

Project schedule

Staging strategy one:

Construction of a new temporary swing space (4 years)

Staging strategy one entails the construction of a temporary conference facility on a greenfield site at the Office for use during the projected three years of construction. The strategy would entail the construction of a large lightweight structure with a catalogue of conference, committee and meeting rooms to maintain the operations of core conference services. This facility would be demolished after completion of the main works renovation.

Staging strategy one would entail an additional year of construction, requiring a total of four years from project initiation. The total projected cost for options A and B would be in accordance with strategy one, with an additional amount of \$35 million and additional design fees, contingencies and escalation.

Staging strategy two: Staged decant of existing spaces (3.5 years)

Staging strategy two is the most favourable plan for ensuring the business continuity of the Office. This strategy would entail the continued use of the existing conference facility while new pavilions to the north and west (option B) are constructed. On completion of the new stand-alone buildings, the existing spaces would be decanted into the new areas and the existing building could be wholly refurbished. A final stage would link the two completed project areas together.

The construction duration of staging strategy two would be an estimated 3.5 years from project initiation. The total projected cost for options A and B would be in accordance with staging strategy one, with additional design fees, contingencies and escalation.

Strategic Plan Two - Staged decant	2021	2022	2023	2024	2025	2026	2027	2028	2029
Planning phase	■	■							
Design & documentation phase		■	■	■					
Procurement phase				■	■				
Construction Phase 1 - New Building					■	■	■		
Decant CS to New Buildings						■			
Construction Phase 2 - Existing Buildings							■	■	
Construction Phase 3 - Linkages (old and new)								■	
Project closeout phase									■

82. Assessing all options and factoring in risk and business continuity, it is recommended to progress with staging strategy two, namely, a staged decant of existing spaces as shown in the indicative project schedule in figure XV above. Staging strategy one has been assessed as impracticable owing to the additional cost and complexity of constructing temporary facilities and the resulting increased project duration and management cost.

Project phases

83. The future design and construction of the conference facilities upgrades would follow the standard procedures and practices established in the United Nations Guidelines for the Management of Construction Projects. As an immediate next step, a planning/pre-design phase would be undertaken to provide detailed studies of the existing conditions and site data for use during the project design phase. Working at both the macroscale and microscale levels, the pre-design phase would provide confidence in the decision-making process, cost estimation and programming for future phases.

84. A summary of the planned activities during the remaining part of 2021 is set out below.

- (a) Conduct additional detailed preparatory work necessary to begin the design phase, including a site feature and topographical survey, and an audit of existing services infrastructure;
- (b) Develop a proposed project governance framework, including an advisory board, stakeholders committee and dedicated project management team;
- (c) Conduct a feasibility assessment of possible income-generating activities of the renovated conference facilities, which could partially offset initial capital investment and future operating costs.

III. Estimated project costs and possible income generation

A. Estimated project costs

85. The estimated costs of option A and option B at 2021 budget rates are summarized below.

Table 3
Estimated costs of option A and option B

(Thousands of United States dollars)

Option A	
<i>Trade costs</i>	
Building costs	136 786.0
<i>Sub-trade costs</i>	
Design consultancy firm	14 651.0
Quantity surveying firm	2 442.0
Programme management firm	2 442.0
Independent risk management firm	963.0
Other services	683.9
Subtotal, sub-trade costs	21 181.9
Escalation	39 993.7
Contingencies	23 601.9
Project management costs	21 045.2
Total costs option A	242 506.1
Option B	
<i>Trade costs</i>	
Building costs	156 433.0
<i>Sub-trade costs</i>	
Design consultancy firm	17 328.0
Quantity surveying firm	2 888.0
Programme management firm	2 888.0
Independent risk management firm	963.0
Other services	782.0
Subtotal, sub-trade costs	24 849.2
Escalation	45 738.1
Contingencies	27 059.8
Project management costs	24 942.3
Total costs option B	278 905.0

86. Annex II contains a detailed project cost plan for the recommended option B, showing projected expenditures for each category per year, from 2022 until final project completion in 2029. The categories and the methodology for establishing the estimates for each are set out below.

Contracted construction services

87. Resources amounting to \$156,433,000, excluding contingencies and escalation, are required for the contracting of the construction firms from 2025 to 2028. The breakdown of the required contracted construction service resources is as follows: \$83,151,000 for the construction of the new buildings; \$44,048,000 for the renovation

works for the existing buildings; and \$29,234,000 for technologies related to the "net zero" energy project objectives.

88. The cost estimates were established by applying unit costs on a per square metre basis to the spatial programme contained within the concept design brief; referencing the most accurate available historical data for relevant projects in the region, including the most recent large-scale projects undertaken at the Office and the Economic Commission for Africa; and referencing relevant historical data for similar international projects. The estimates were also subject to peer review by an independent cost estimating firm working on behalf of the Global Asset Management Policy Service of the Office of Programme Planning, Finance and Budget, which offered advice on reducing the estimates where appropriate, by corroborating the unit rates using an international cost estimating reference database and by referencing relevant independent historical data.

89. It is envisaged that two construction contracts will be required from 2025 to 2028, one for the new construction and one for the renovation portions of the project scope. The above estimates are inclusive of the costs of specialty equipment, furniture, swing space moves and other costs related to the construction, sometimes referred to as "associated costs".

Contracted consultancy services

90. Resources amounting to \$24,067,000, excluding contingencies and escalation, are required for the continuation of the established dedicated consultancy services and contracted external expertise throughout the design and construction stages of the project, from 2022 to 2029. The functions of the four main consultancy service contracts are set out in section IV of the present report. The cost estimates were established by applying a percentage of the construction trade costs, in line with industry norms and recent historical trends of other similar capital projects undertaken by the Organization.

Other services

91. Resources in the amount of \$782,000 are required for miscellaneous services needed to undertake the planned construction activities, such as independent testing, independent design reviews and software licences.

Dedicated project management staff costs

92. Project management resource requirements amounting to \$24,942,000, excluding escalation, are comprised of temporary positions and travel expenses. The composition of the team is described in section IV of the present report. Staff costs were established using standard 2021 rates. The amount is inclusive of travel costs in the amount of \$200,000, which is intended to cover trips from Nairobi to New York, Geneva and other relevant United Nations duty stations for the purpose of exchanging lessons learned and best practices on the project, particularly with respect to conferencing business practices and technology, and for the travel of Headquarters-based staff to Nairobi to participate in technical evaluation committees related to the procurement of design and construction contracts and to provide technical guidance, advice and oversight of the project.

Contingencies

93. Resources in the amount of \$27,060,000, excluding escalation, are required for project contingencies from 2022 to 2029. The level of the contingency provision was determined by applying a rate of 10 per cent on the construction costs of the new construction portion of the project scope and a rate of 15 per cent on the construction

costs of the renovation portion of the project scope. The rates are in line with industry practice as well as recent capital projects undertaken by the Organization.

94. No contingency was applied to the cost of the technologies related to the "net zero" energy project objectives because the costs of those emerging technologies were expected to be subject to fluctuation from the time that the present estimate was established until the latter period of the construction phase of the project, during which the technologies will be installed.

95. The estimated contingency rate was also subject to review by the independent risk management consultant employed by the Global Asset Management Policy Service of the Office of Programme Planning, Finance and Budget for other ongoing capital projects being undertaken by the Organization. The proposed rate was established following a series of meetings with the Office team and takes into account the integrated risk analysis of the various implementation options set out in section II of the present report.

96. In line with General Assembly resolutions [71/272 A](#) and [72/262 A](#), any unspent contingency funds will be returned to Member States at the end of the project.

Escalation

97. Resources amounting to \$45,738,000 are required for projected cost escalation from 2025 to 2029. The value of the escalation costs was determined by applying a rate of 5.5 per cent to project construction costs inflation, compounded annually from July 2021 until the projected start date of each of the two construction contracts. The escalation rate was established by referencing recent historical trends in the construction market in the region as well as expert advice by the quantity surveying firm employed by the design consultant, the cost estimating peer review firm and the independent risk management consulting firm. The escalation provision does not cover exchange rate fluctuations, which may affect the project.

B. Long-term operational costs

98. It is forecasted that with an increase in rentable floor area (conference, committee and meeting rooms), the new facility would generate rental income to significantly or even fully offset the following ongoing operations and maintenance costs that would be incurred by the expanded facility:

(a) Capital replacement cost of information technology and audiovisual and communications technologies estimated to be required on a phased/ongoing replacement schedule every seven years;

(b) Annual variable operational costs incurred by the facility.

99. Within the target utilization, these variable and life cycle costs can be covered largely by charging on a cost-recovery basis for the use of the facility by non-Secretariat and approved external entities. More detailed information regarding potential operating and maintenance costs will be developed once the design stage of the project is complete.

C. Income-generating activities

100. The sessions of the calendar bodies with headquarters in Nairobi (United Nations Environment Assembly and UN-Habitat Assembly) and their subsidiary bodies being included in the United Nations official calendar of meetings and

conferences are mandated to be held in Nairobi.² The headquarters rule has been reaffirmed in several General Assembly resolutions on the pattern of conferences. These mandates support the continued utilization of conference rooms in Nairobi, which saw a surge in room demand by 54 per cent in 2018 and 59 per cent in 2019.

101. Current utilization has been significantly affected by the COVID-19 pandemic, with usage down to 10.66 per cent of capacity in 2020, an 80 per cent reduction from previous years. Conservative estimates, which reflect that anomalous market decline, expect utilization to recover to pre-COVID rates of around 55 per cent by mid-2022 and 59.33 per cent by the end of 2022, assuming that there has been some gradual return to everyday operational normality in the second half of 2021. The target for utilization is generally about 70 per cent of capacity to allow general maintenance, next event setup and cleaning. At current projections, on the basis of historical figures and including the decline caused by COVID-19, the current conference facility at the Office will reach peak utilization of around 70 per cent by 2025; after that, it will be unable to meet the demands of calendar and non-calendar events while still providing for the servicing and maintenance schedules of the facility, which will become more demanding as the facility deteriorates.

102. Multilateral environmental agreements born under the auspices of UNEP, such as the Convention on Biodiversity, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Basel, Rotterdam and Stockholm Conventions on the sound management of chemicals and waste, the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer, and the Minamata Convention on Mercury, are natural candidates for holding sessions in Nairobi when no Government is prepared to host them. Should the deteriorating conditions and limited capacity of the Office's conference facilities be addressed, Member States may consider encouraging the parties to the multilateral environmental agreements to hold their meetings in Nairobi.

103. Other environmental conventions such as the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa and the United Nations Framework Convention on Climate Change are also candidates. The governing bodies of those entities do not have a designated location to hold their meetings, and the Office could be well positioned to host them.

104. In the case of the human settlements agenda, Kenya hosted the first session of the World Urban Forum, in 2002, at the Office. Since then, the Forum has grown exponentially in size and complexity, making it perhaps the largest human settlement conference held in the world, and it could serve as a key event to attract conferences back to the Office, should the Government of Kenya offer to host it or should there

² In 2001, the Committee on Conferences recommended to the General Assembly that it request the United Nations Environment Programme (UNEP) and the United Nations Centre for Human Settlement (Habitat) to comply with the headquarters rule to hold all their meetings at the United Nations Office at Nairobi, in order to increase further the utilization of the conference facilities in Nairobi (A/56/32, paragraph 53); the Assembly, in its resolution 56/242, endorsed the recommendation of the Committee on Conferences. The General Assembly, in section II.A of its resolution 57/283 B, reaffirmed that all meetings of the Nairobi-based bodies would take place in Nairobi, except as otherwise authorized by the Assembly or the Committee on Conferences acting on its behalf (para. 9); strongly discouraged any invitation for hosting meetings, which would violate the headquarters rule, in particular for United Nations centres with a low utilization level (para. 10); and reiterated its encouragement to the Secretary-General to continue to intensify efforts being made by the United Nations Office at Nairobi to attract more meetings to its facility (para. 11). The General Assembly, in section II.A of its resolution 59/265, recalled several resolutions, including resolution 57/283 B, section II.A, paragraph 9, and reaffirmed that all meetings of Nairobi-based United Nations bodies would take place in Nairobi, except as otherwise authorized by the Assembly or the Committee on Conferences acting on its behalf.

be no host offer for a particular session. In 2016, Kenya hosted the fourteenth session of the United Nations Conference on Trade and Development. The conference was held at the Kenyatta International Convention Centre in Nairobi, rather than at the Office, owing to the size of the event.

105. These historical trends show that there is an existing market of other major events interested in Kenya as a destination. The cycle of those events is set to increase with regional and national investment in infrastructure, aligning with the strategic plans of the Kenya National Convention Bureau. With a suitably scaled venue, the Office would be well positioned to participate more actively in that sector. Meetings and conferences, other than those on the United Nations calendar of conferences, convened at the conference facility at the Office would be charged on a cost-recovery basis.

IV. Project governance, management and accountability

106. Annex I to the present report sets out the proposed governance structure for the project, including all stakeholders directly or indirectly affected by the proposed project.

107. The Director-General of the United Nations Office at Nairobi would be the overall project owner and would provide overall guidance and direction, through the Director of Administration, to the Principal Officer and the dedicated project management team.

108. In performing her role as project owner, the Director-General would benefit from the advice of a Steering Committee which, in turn, would receive regular expert advice from the independent risk management firm.

109. The Steering Committee would comprise Under-Secretaries-General at the United Nations Office at Nairobi and the Department of Management Strategy, Policy and Compliance at Headquarters, as well as leading departments and offices operating both in Nairobi and at Headquarters, who would have a direct operational influence on the project.

110. The Director-General, as project owner, would provide overall management direction to the Principal Officer, through the Director of Administration, ensuring that the project objectives continue to align with the goals of the United Nations. The Director-General would act as co-chair of the Steering Committee and would approve proposed funding requests to be presented to the General Assembly and changes affecting the project scope, budget and timeline, subject to agreement by the Steering Committee.

111. The Director of Administration, as project executive, would be responsible for providing strategic and administrative guidance to, and oversight of, the Principal Officer and team. The Director of Administration would interact with the United Nations intergovernmental and oversight bodies, as well as key external stakeholders such as the Government of Kenya and representatives of Member States. The Director of Administration would advise the Steering Committee, at key project milestones, of the major risks that the project could face and, in conjunction with the Principal Officer, propose the mitigation measures to be taken.

112. The Principal Officer would have overall responsibility for the day-to-day performance of the project team and the delivery of the project. Specifically, the Principal Officer would be responsible for the execution of the full scope of project deliverables on time, within the established budget and according to agreed objectives, benefits and quality levels; the allocation of financial and human resources; reporting

project progress to the Director of Administration and to the Steering Committee; reporting and managing the resolution of project risks, opportunities and current issues; managing project changes; and maintaining liaison with representatives of internal stakeholders of the project. In addition, the Principal Officer would manage the commissioning and handover process of the renovated and constructed premises.

113. The input of the internal stakeholders of the project would be coordinated by the Director of Administration and the stakeholders would be responsible for providing inputs on their operational requirements to the project in alignment with the strategic objectives of the United Nations. The internal stakeholders would assist the project team in reviewing the design at the main milestones, such as the design feasibility, concept design and detailed design.

A. Steering Committee

114. The Steering Committee would be responsible for the approval of changes that would modify the scope and objectives of the agreed project implementation plan, in cases where the product being delivered no longer aligns with the original objectives or intent of the project or is to contain different features, services or functions than originally intended. In addition, the Steering Committee would review changes that exceed the approved budget, prior to submission to the General Assembly for approval, and oversee the cumulative effect of changes being made across the entire project and the adequacy of the remaining contingency provision. Furthermore, the Committee would be tasked with overseeing the overall performance of the project in delivering the key milestones and meeting the requirements of its key internal and external stakeholders and of the Organization as a whole.

115. Quarterly meetings would be held, at which the Project Director would present the current progress of the project in terms of the timeline, budget, scope and realization of the strategic benefits. The quarterly meetings would also be the forum in which formal change requests would be approved or rejected. Special meetings of the Steering Committee could be convened by the Director-General in case of urgent needs, such as approval of a change of scope that, if delayed, could increase the cost of the project.

116. The Steering Committee would comprise the heads of departments or their appointed representatives, as well as representatives from leading departments and offices in Nairobi and New York with a direct operational interest in the project.

B. Advisory Board

117. The Advisory Board would be envisaged as an independent and impartial entity comprised of representatives from a wide geographic representation, with the responsibility of providing the Director-General of the Office, in her role as project owner, with advice and guidance on the management of the project from the perspective of Member States. The Board would be regularly informed of the details of the project at key milestones in the context of scope, time, budget and quality and on how to proceed after certain predetermined stages had been reached.

118. The Advisory Board would have a chair and subject matter experts. Appointment to the Board would be for a period of two years. The Principal Officer would serve as its secretary.

C. Dedicated project management team and liaison support staff

119. On the basis of lessons learned from other capital projects recently undertaken by the Organization, it is essential that an appropriately sized core project management team be established in 2022 in order to ensure that the project is successful during further phases. The team would also need to be complemented by a commensurate technical expert staff to lead a project of such magnitude and complexity.

120. The proposed core project management team to be established in 2022 is set out in table 4.

Table 4

Proposed project management team to be established in 2022

<i>Position</i>	<i>Level</i>
<i>Senior management</i>	
Principal Officer	D-1
Chief, Design and Construction Section	P-5
Chief, Programme Management Support Section	P-5
<i>Project management team</i>	
Project Engineer, Mechanical and Plumbing	P-4
Administrative Officer	P-3
3 Support staff	General Service (Other level)
<i>Operational support staff</i>	
Conference Services Officer	P-4
Procurement Officer	P-4
Information Technology Officer	P-3
Security Officer	P-3

121. The Secretary-General recommends that the project be led by a Principal Officer at the D-1 level, who would be supported by a dedicated project management team. The Principal Officer would be responsible for the overall direction of the project to ensure that it is implemented on schedule and within budget and for maintaining adequate communication among stakeholders.

122. The team would be supported by two Sections; the Design and Construction Section and the Programme Management Section, each led by a Section Chief at the P-5 level.

123. The Design and Construction Section would be responsible for the management and coordination of the project design and construction activities to ensure that the project objectives and goals are met and ultimately would be responsible for the delivery of the project design and construction, taking into consideration the schedule, cost and quality targets.

124. The Programme Management Section would be responsible for providing support to the design and construction team by establishing and applying procedures

for effective management of the project risks, schedule and costs. The Section would coordinate the procurement and cost containment activities and ultimately would be responsible for ensuring proper control mechanisms so that forecast project overruns are rapidly identified and that preventative, mitigating actions are taken in good time.

125. In addition, there would be a need at an early stage to establish operational support staff positions to coordinate with the Conference Services, Procurement, Safety and Security and Information Technology Sections of the Office. The operational support staff would ensure that current and future operational requirements are considered in the development of the project plan, provide inputs on the requirements throughout the design and construction phases of the project and facilitate coordination between the project team and offices to ensure smooth transitions that minimize any disruption of activities during project implementation. Two officers at the P-4 level (one Conference Services Officer and one Procurement Officer) and two at the P-3 level (one Information Technology Officer and one Security Officer) would be required to perform the above duties.

126. In addition, one Project Engineer at the P-4 level, one Administrative Officer at the P-3 level and three administrative support staff at the General Service level would be needed to support the project team.

127. An organigramme of the overall project management team is contained in annex I. It shows the structure of the dedicated team proposed for 2022 as well as additional staff complements that would augment the team at later stages in the project schedule.

D. Dedicated consultancy services

128. Beginning in 2022, the project management team would need to procure specialized services for lead design coordination to undertake the detailed design in line with the concept design presented herein, as well as ongoing services for programme and risk management. The following consultancies would therefore be required:

- (a) Lead design firm;
- (b) Quantity surveying (cost estimating) firm;
- (c) Programme management firm;
- (d) Risk management firm.

129. The lead design firm would further develop the overall project design master plan, including the design guidelines to be implemented by all design specialists, such as architects and structural, mechanical, electrical, audiovisual system and communication engineers. The firm would establish all procedures necessary to run and coordinate the detailed design and construction activities, including schedules, deliverables, submittals, prototypes, approval processes, document distribution, quality controls, acceptance testing and commissioning procedures necessary for the various stages of the project.

130. The lead design firm would also be responsible for developing the design of the new proposed buildings and the renovation of existing buildings, inclusive of schematic design, detailed design development, technical design/construction drawings and specifications and tender documentation to procure the construction services.

131. Reporting directly to the United Nations to ensure segregation of responsibilities, the quantity surveying (cost estimating) firm would develop bills of quantities for the design documents, review cost information contained in submitted invoices for accuracy and provide the project team with preliminary cost estimates

for use in early decision-making on any change orders or value engineering proposals under consideration.

132. A programme management firm would assist in the overall planning, coordination and control of the project. Specifically, the firm would assist in developing project reports and detailed project management guidelines, resource planning, value management and quality control to ensure that the project design activities are developed and controlled, thus enabling the future construction works to remain within the estimated cost plan and schedule and in accordance with the required quality parameters. Other tasks would include cost containment, schedule management and identification of potential scope creep.

133. An independent risk management firm would assess the project activities to minimize and control the risks of cost and schedule overruns. The key deliverables would comprise the following:

- (a) Risk analysis report identifying all the project risks;
- (b) Risk impact report identifying the potential impact in terms of cost, time and quality;
- (c) Risk management report, including the proposed response to risks and mitigation procedures;
- (d) Consolidated quarterly risk register updates on the risk analysis, impact and management reports;
- (e) Contingency plans.

134. Coordination and oversight have been provided by the Global Asset Management Policy Service at Headquarters and has included biweekly meetings between the Office team and the Global Asset Management Policy Service team and a review of the project proposal, including the technical design, space programme, implementation strategy and cost estimates.

135. The Global Asset Management Policy Service is supported by an international professional firm with experience in construction-related risk management services. The outcomes of the initial risk assessment for the project are outlined in section V of the present report.

V. Project risk management

136. A risk and benefit analysis was undertaken for each of the two options, against three possible construction staging strategies. Given that staging strategy one was deemed non-viable, the analysis was discontinued. The analyses for the two remaining viable options are summarized below.

Table 5
Risk matrix: Strategic plans for implementation

<i>Risks</i>		<i>Strategy</i>	<i>Description</i>	<i>Impact</i>	<i>Likelihood</i>	<i>Score</i>	<i>Risk category</i>	<i>Mitigation</i>
<i>(1)</i>		<i>(2)</i>	<i>(3)</i>	<i>(a)</i>	<i>(b)</i>	<i>(c)</i>		
				<i>(4)</i>	<i>(5)</i>	<i>(6=4x5)</i>	<i>(7)</i>	<i>(8)</i>
1	Business continuity (d)	One	Create temporary conference facility to maintain operations during construction	5	3	15	Strategic	Strategic plans are prepared to accommodate swing space by having construction plans that consider continuous operations. Strategy one has the most disruption and no guarantee of suitable space being available in the market.
		Two	Facilitate operations in existing building and stage the construction works around continuous operations	5	2	10		
2	Project duration (e)	One	4 years – two-stage construction	5	3	15	Operation	Providing for business continuity has the consequence of adding project time. The project management team will need to ensure the timeline is maintained
		Two	3.5 years – three-stage construction	5	3	15		
3	Procurement procedure (f)	One	One or two construction contracts, separated for temporary works and permanent works	5	4	20	Operation	Dedicated procurement team to assist with multiple contracts as required and ensure timelines and quality constructions
		Two	One or two construction contracts for new building, and retrofit	5	4	20		
4	Escalation (g)	One	4 years – two-stage construction	5	5	25	Operation	Escalation is calculated at a steady rate per annum so as project duration increases there is commensurate project escalation
		Two	3.5 years – three-stage construction	5	5	25		
5	Currency fluctuations	EQUAL	Same risk outside of project control	4	3	12	Operation	
6	Project delays (h)	One	Two phase construction requires temporary swing space to be operational before main works	5	4	20	Operation	Close contract management and sequencing of works to manage the expected delays from transitions between stages, preparing swing space or delays that are likely to occur throughout normal construction works
		Two	New build needs to be operational to maintain operations, retrofit and linking new and old areas requires careful project management	5	4	20		

<i>Risks</i>		<i>Strategy</i>	<i>Description</i>	<i>Impact</i>	<i>Likelihood</i>	<i>Score</i>	<i>Risk category</i>	<i>Mitigation</i>
				<i>(a)</i>	<i>(b)</i>	<i>(c)</i>		
<i>(1)</i>		<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6=4x5)</i>	<i>(7)</i>	<i>(8)</i>
7	Staff acceptance (i)	One	Some disruption to conference services	5	3	15	Operation	The satisfaction of the users is paramount for the end result but also for the process during construction – disruption to conference services needs to be minimal
		Two	Minimal disruption to conference services	5	2	10		
8	Modernization of conference service	EQUAL	All projects to achieve the same outcome – requires delivery of complex systems, integration and foresight	4	2	8	Strategic	Expert consultancy and project vision required to ensure comprehensive conference technology and seamless integration for in-person and remote services
9	Weather events (j)	One	Disruption from wet season, or dry seasonal events Extended project duration and two construction sites increases likelihood of events Water supply during construction may be affected by unusual dry seasons and lack of town water supply	3	5	15	Operation	Staging of the works can be affected by weather conditions, wet seasonal disruptions and then increased temperatures and dry seasons affecting water supply during construction. Increase to water storage identified for project capacity
		Two		3	4	12		
Overall risk score				Strategic plan one		145	High risk score due to double construction projects	
				Strategic plan two		132	lower risk score due to continuous operations and phasing of work	

(a) Impact: 5 – critical; 4 – significant; 3 – high; 2 – moderate; 1 – low.

(b) Likelihood: 5 – expected; 4 – highly likely; 3 – likely; 2 – not likely; 1 – slight.

(c) Risk category – “Strategic” means those risks related to high-level goals, aligned with and supporting the Organization’s Charter vision and mandate; “Operation” means those risks related to effective and efficient use of the Organization’s resources (that is, programme management, human resources, etc.).

(d) Business continuity: Ability to perform project with no impact on United Nations Office at Nairobi operations. The risk increases with the complexity of the swing space provided and the number of different and scattered locations required to maintain conferencing services in Nairobi.

(e) Project duration: Critical activities with life safety component such as seismic retrofit risks increase with duration of the project implementation.

(f) Procurement procedure: the risk increases with the complexity of managing conference services in multiple locations or creating entirely new temporary space that will one day be abandoned or decommissioned after use.

(g) Escalation: Risk increases with the duration of the project, as each year represents additional costs and exposure in swing space until permanent facilities are available.

(h) Project delays: Risk increases with complexity of swing space option, as maintaining conference services in scattered locations will become increasingly difficult or equally affected by temporary facilities that may become inadequate over time.

(i) Staff acceptance: The risk increases with the perceived level and duration of disruption to normal operations.

(j) Weather events: Risk increases based on the exposure to potential inclement weather especially flooding or prolonged dry and hot weather.

Table 6
Risk benefit matrix

Item	Strategic capital review category	A	B
A Risks			
1 Business continuity (d)	j	15	10
2 Project duration (e)		15	15
3 Procurement procedure (f)		20	20
4 Escalation (g)		25	25
5 Currency fluctuations		12	12
6 Project delays (h)		20	20
7 Staff acceptance (i)	j	15	10
8 Modernization of conference services	g	8	8
9 Weather events (j)		15	12
Sum of risk scores (items 1 to 9)		145	132
B Benefits			
Qualitative			
10 Industrial health and safety compliance		5	10
11 Overall planning and circulation (d)		5	10
12 Meeting United Nations security requirements	a, b, c	10	10
13 Fire and electrical utilities/norm		10	10
14 Plumbing services and drainage systems		10	10
15 Resilience against potential natural disaster/seismic code and structure		10	10
16 Accessibility (c)	d	5	10
17 Space utilization (a)	f	10	10
18 Improvement of indoor air environment	h	10	10
19 Modernization of systems	g	10	10
20 Use of building materials with low embodied energy	h	10	10
21 Maintenance of biodiversity and green space	h	10	10
22 Functional improvement site-wide	f	10	10
Quantitative			
23 Reduction in energy consumption		10	10
24 Reduction in water consumption	h	10	10
25 Renewable energy resource (b)		10	10
26 Swing space costs	f	1	10
		146	170
	Benefit	Lowest	Highest

Abbreviation: 10 – meets requirement; 5 – satisfactory requirement; 1 – does not meet the requirements.

Strategic capital review (A/68/733) categories: (a) Property value; (b) Health and safety; (c) Preparedness disaster; (d) Human right disabilities; (e) Hazardous material; (f) Space use efficiency; (g) Modernization of building; (h) Energy efficiency; (i) Heritage asset; (j) To keep disruption of the work of the United Nations to a minimum, and to otherwise ensure business and operational continuity throughout any project implementation.

Notes:

- (a) Space utilization, higher space efficiency involving modernizing conference services, technology and improved connectivity of services and switchovers between room set-ups.
- (b) Sustainable Development Goal 7: ensure access to affordable, reliable, sustainable and modern energy for all. By 2030, double the global rate of improvement in energy efficiency.
- (c) Addressing resolution 67/160, in which the General Assembly requests the Secretary-General to continue the progressive implementation of standards and guidelines for the accessibility of facilities and services of the United Nations system, taking into account relevant provisions of the Convention on the Rights of Persons with Disabilities, in particular when undertaking renovations, including g interim arrangements (para. 10).
- (d) In relation to the maintenance investment to maintain the property value as defined in table 3 of the report on the strategic capital review (A/68/733).

VI. Resource requirements

Status of expenditures for the period 2020–2021

137. The total appropriation for 2020 was \$470,000, of which \$306,349 was spent on professional multidisciplinary services specialized in international conferencing, which were used to complete the needs analysis, conditions assessment and expanded options analysis. In addition, \$87,060 was used for coordination resources, including the preparation of a multidisciplinary scope of works, a tender exercise, the evaluation of bids and the selection of the chosen firm, as well as coordination with the two main clients of the conference facilities, namely, UNEP and UN-Habitat, leaving an unspent balance of \$76,591, which is taken into account in the overall unencumbered balance of section 29G, as reported in the performance report on the 2020 regular budget.

Table 7

Status of 2021 expenditures as at 30 September 2021

(United States dollars)

	<i>Appropriated project funding for 2021</i>	<i>Cumulative expenditure as at 30 September 2021</i>	<i>Projected expenditure from 1 October to 31 December 2021</i>	<i>Projected unused balance at the end of 2021</i>
	(a)	(b)	(c)	(d)=(a)-(b+c)
Section 29G, United Nations Office at Nairobi				
Other staff costs (coordination resources)	120 000	—	40 000	80 000
Operating expenses (multidisciplinary services)	374 000	166 116	125 000	82 884
Total	494 000	166 116	165 000	162 884

Resource requirements for 2022

138. Resources in the amount of \$1,081,400 are required under section 29G of the programme budget for the recruitment of the initial 12 temporary positions. The incumbents would undertake the duties and responsibilities set out in paragraphs 121 to 127 above, as well as, inter alia, the next steps necessary to continue the development and implementation of the project as described in section VII below. The estimated amount takes into account a 50 per cent vacancy rate in accordance with standard budgetary practice for new positions. The amount also includes \$20,000 for travel of project management staff to other United Nations duty stations (New York and Geneva) to glean lessons learned from recent capital projects, with emphasis on the development of the terms of reference for the design consultancy firm.

139. Resources in the amount of \$914,600 are required under section 33 of the programme budget for the hiring of the design consultancy firm and the independent risk management firm, so that they can begin performing the required services as outlined in paragraph 133 above.

VII. Proposed next steps to be taken in 2022

140. The proposed next steps to be taken in 2022 are set out below.

- (a) Establish a project Advisory Board, Steering Committee and Stakeholders Committee;
- (b) Begin recruitment of the initial 12 project management temporary positions;

(c) Develop terms of reference and launch procurement actions for the professional design services firm, cost estimating firm, programme management firm and independent risk management consultancy contracts;

(d) Engage the host country in securing the required project support for neighbouring infrastructure;

(e) Complete detailed site surveys and other pre-design actions prior to the commencement of the design phase.

VIII. Actions to be taken by the General Assembly

141. The General Assembly is requested to:

(a) Take note of the report of the Secretary-General;

(b) Approve the scope of option B for the project;

(c) Approve the proposed implementation strategy;

(d) Approve the maximum overall cost of the project in the amount of \$278.9 million;

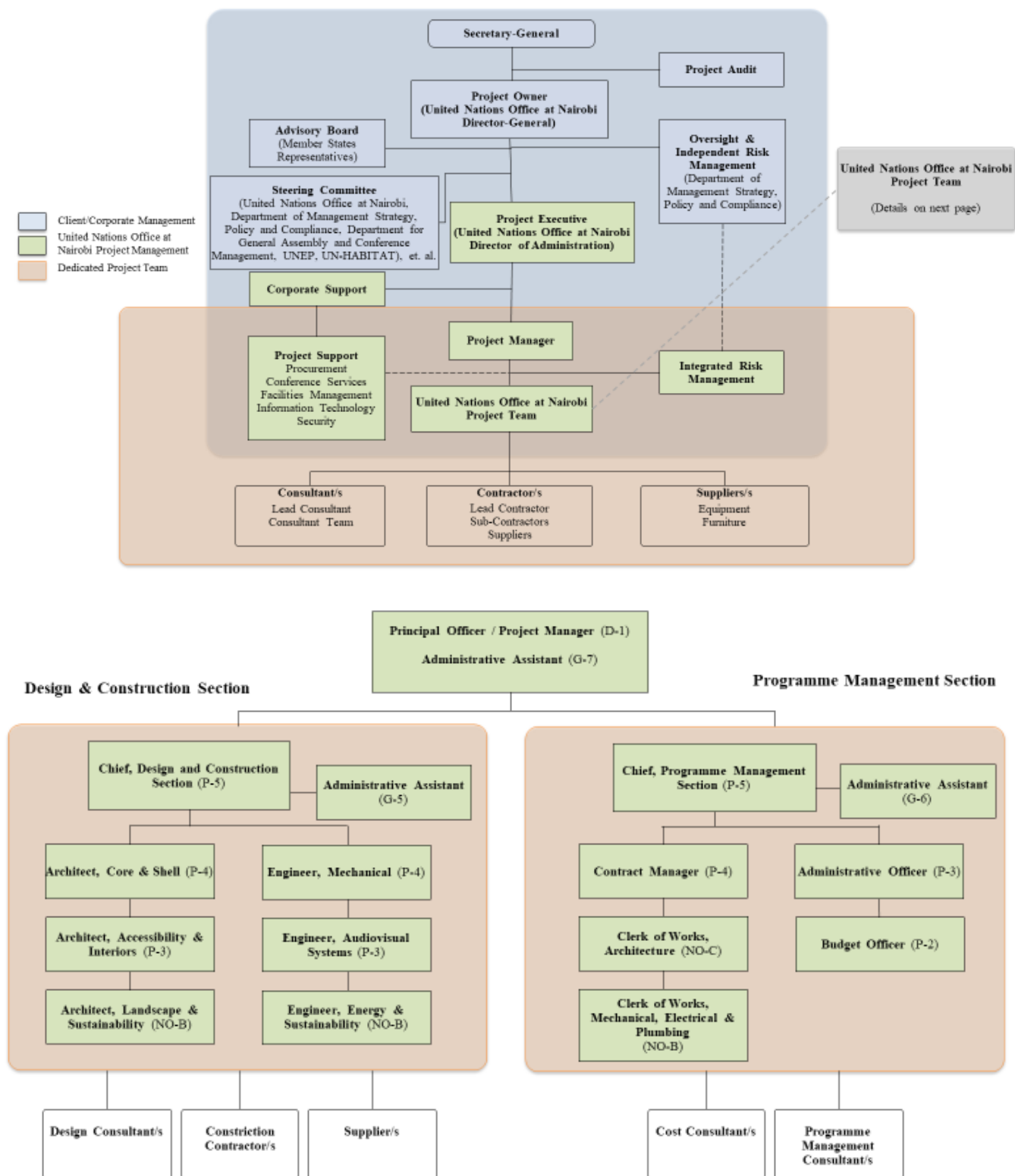
(e) Approve the establishment of 12 temporary positions beginning in 2022 for the project management team under section 29G, Administration, Nairobi, of the proposed programme budget for 2022;

(f) Appropriate an amount of \$1,996,000 for the project in 2022, comprising \$1,081,400 under section 29G, Administration, Nairobi and \$914,600 under section 33, Construction, alteration, improvement and major maintenance, of the proposed programme budget for 2022, which would represent a charge against the contingency fund;

(g) Establish a multi-year construction-in-progress account for the project.

Annex I

Governance structure and project management



Annex II

Project cost plan

Detailed cost plan for the renovation and expansion of the Conference Facility at the United Nations Office in Nairobi

Option B

(Thousands of United States dollars)

	2022	2023	2024	2025	2026	2027	2028	2029	Total
Section 33, Construction, alteration, improvement and major maintenance									
1. Construction costs				48 298.7	48 298.7	31 091.1	26 007.0	2 737.6	156 433.0
2. Professional services									
2.1 Design consultancy firm	866.4	3 465.6	3 465.6	3 465.6	1 732.8	1 732.8	1 732.8	866.4	17 328.0
2.2 Quantity surveying firm		577.6	577.6	577.6	288.8	288.8	288.8	288.8	2 888.0
2.3 Programme management firm		577.6	577.6	577.6	288.8	288.8	288.8	288.8	2 888.0
2.4 Independent risk management firm	48.2	144.5	144.5	144.5	144.5	144.5	144.5	48.2	963.0
2.5 Others services (furniture, IT, licenses, 3rd party reviews)			117.3	117.3	117.3	117.3	117.3	78.2	782.2
3. Escalation				11 534.9	11 534.9	11 778.6	9 852.6	1 037.1	45 738.1
4. Contingency		476.5	488.3	6 471.6	6 240.6	6 816.3	5 764.8	801.8	27 059.8
Subtotal, section 33	914.6	5 241.8	5 370.8	71 187.8	68 646.4	52 258.1	44 196.5	6 146.8	253 962.7
Section 29H									
5. Project management									
5.1 Dedicated project management and support team	1 061.4	2 803.2	3 601.7	3 719.7	3 719.7	3 501.6	3 501.6	1 397.1	23 306.0
5.2 Dedicated Coordinator at Headquarters				218.0	218.0	218.0	218.0		872.0
5.3 Travel of project management team	20.0	40.0	40.0	40.0	20.0	20.0	20.0		200.0
Subtotal, section 29H	1 081.4	2 843.2	3 641.7	3 977.7	3 957.7	3 739.6	3 739.6	1 397.1	24 378.0
Section 34, Safety and security									
6. Security requirements (security guards)									
Subtotal, section 34			62.7	125.4	125.4	125.4	125.4		564.3
Total	1 995.9	8 085.0	9 075.2	75 290.9	72 729.5	56 123.1	48 061.5		278 905.0