

## **Real estate**

### **Report by the Secretariat**

#### **INTRODUCTION**

1. In January 2013 the Programme, Budget and Administration Committee of the Executive Board, at its seventeenth meeting, considered an earlier version of this report.<sup>1</sup> In its report to the Executive Board,<sup>2</sup> the Committee recorded its request for additional clarification on the impact on the global refurbishment and other priority projects previously identified before endorsing the approval of the construction of a new country sub-office in Garowe, Puntland, Somalia. In the same report, the Committee also noted that the Secretariat would provide updated information to the Committee at its meeting in May 2013. The Executive Board, at its 132nd session, considered both reports. During the discussions,<sup>3</sup> in response to members' comments, the Secretariat undertook to develop a new strategy for consideration by the governing bodies in May 2013.

#### **UPDATE ON IMPLEMENTATION OF THE CAPITAL MASTER PLAN**

2. Significant progress was made in 2011 and 2012 in tackling the immediate refurbishment priorities previously authorized by the Health Assembly in resolution WHA63.7. At headquarters, the first phase of urgently required fire security works to the main building was completed. The refurbishment work was designed to improve the ease of emergency escape from the main building and to impede the spread of fire should it occur. The renovations included enhancing the integrity of fire compartments within the main building structure, updating emergency signage, installing fire doors to emergency exit routes and elevators, installing equipment to pressurize vertical emergency exit routes and installing horizontal emergency exit routes.

3. A joint committee with representation from the Swiss authorities was established to continue work on the refurbishment strategy for the headquarters site.

4. Significant measures to ensure compliance with the United Nations Minimum Operating Security Standards were undertaken in the regions, with work already completed in some. In the Eastern Mediterranean Region and the Western Pacific Region, for example, and in offices located in areas with a security level rating of "substantial", "high" or "extreme", compliance with such standards is currently at 100%. Increased efforts and resources are required in the African Region to target compliance with these Minimum Operating Security Standards in locations with elevated security levels.

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<sup>1</sup> Document EB132/33.

<sup>2</sup> Document EB132/43.

<sup>3</sup> See summary records of the Executive Board at its 132nd session, fourteenth meeting.

5. Table 1 provides a summary of the Capital Master Plan resource requirements as they stand under the current renovation strategy. The summary below retains the financial assumptions relating to the floor-by-floor refurbishment of the main building.

**Table 1. Current renovation strategy: summary of the Capital Master Plan resource needs**

Regional office/location	Estimated cost (US\$ million)					Total
	2012–2013	2014–2015	2016–2017	2018–2019	2020–2021	
Africa	4.054	2.000	1.915	1.950	0.800	<b>10.719</b>
The Americas	0.500	0.248	0.141	0.134	0.323	<b>1.346</b>
South-East Asia	4.445	6.180	7.405	1.150	1.600	<b>20.780</b>
Europe	5.285	1.200	1.200	1.250	1.250	<b>10.185</b>
Eastern Mediterranean	4.442	1.825	2.225	0.800	0.950	<b>10.242</b>
Western Pacific	1.830	1.000	1.000	1.000	1.000	<b>5.830</b>
Headquarters	20.050	44.230	44.600	29.300	7.300	<b>145.480</b>
<b>Total</b>	<b>40.606</b>	<b>56.683</b>	<b>58.486</b>	<b>35.584</b>	<b>13.223</b>	<b>204.582</b>

## STATUS OF THE REAL ESTATE FUND

6. A sum of US\$ 22 million was appropriated to the Real Estate Fund in 2010 and, in accordance with resolution WHA63.7, allocated to security-related priority projects and to the urgent fire safety works and preliminary refurbishment studies required at headquarters. In 2011, a sustainable financing mechanism for the Real Estate Fund was established comprising a biennial US\$ 10 million appropriation and a 1% increase to the post occupancy charge. Whereas the implementation of the 1% increase to the post occupancy charge yielded a contribution of US\$ 7.5 million to the Real Estate Fund at the start of 2012, no funds were available to facilitate the US\$ 10 million appropriation authorized previously by the Health Assembly.<sup>1</sup> The Capital Investment Master Plan Arbitration and Validation Panel developed an objective validation methodology to prioritize the allocation of real estate funds. The Panel continues to support and prioritize security-related and safety-related projects when allocating real estate funds. The Real Estate Fund had an unallocated balance of approximately US\$ 9.2 million as at 31 December 2012 (see Table 2 below).

**Table 2. Status of the Real Estate Fund (not taking into account allocation or encumbrances)**

	Fund balance US dollars <sup>a</sup>
January 2012	18 120 580
Revenue in 2012 to date	8 699 147
Expenses in 2012 to date	7 724 127
Projects approved by the Capital Investment Master Plan Arbitration and Validation Panel but not yet expensed	9 812 919
Balance available as at 31 December 2012	<b>9 282 636</b>

<sup>a</sup> Figures exclude in-kind contributions (i.e. Global Service Centre, Kuala Lumpur); revenue figures include rental income and post occupancy charge.

<sup>1</sup> See resolution WHA63.7.

7. Table 3 below indicates the status of the Real Estate Fund and the allocations made from it by the Capital Investment Master Plan Arbitration and Validation Panel since the appropriation approved by the Sixty-third World Health Assembly. The table also indicates time lines for completion of projects in receipt of funding from the Real Estate Fund.

**Table 3. Infrastructure projects funded by the Real Estate Fund since 2010**

Project	Project status	Remarks
Headquarters urgent fire safety works and renovation studies	First phase of urgent fire safety works completed	Consultant studies to shape an overall refurbishment strategy are continuing
Eastern Mediterranean Region, compliance with United Nations Minimum Operating Security Standards in the Regional Office and country offices	Works completed	
Regional Office for Europe, urgent flood repairs	Works completed	
Regional Office for the Eastern Mediterranean, proposed new office in Garowe, Puntland, Somalia	Project not started - pending Health Assembly approval	
Regional Office for Africa, renovation of campus road and storm drains network and replacement of perimeter lighting	Implementing contractor selected	Works due to be completed in 2013
Regional Office for the Western Pacific, renovation of fire suppression system and earthquake analysis	Consultant studies in progress	Works due to be completed in 2013
Western Pacific Region, compliance with United Nations Minimum Operating Security Standards in the Regional Office and country offices	Works completed	
Headquarters, urgent upgrade LAN and PBAX	Contract procurement completed and implementation due to commence in mid-2013	Project due to be completed in 2013
Reconstruction of Haiti country office following earthquake	Project preliminaries are being finalized with the implementing partner (UNOPS)*	Project due to be completed in 2013

\* UNOPS refers to the United Nations Office for Project Services.

### **PROPOSED FUNDING OF A NEW COUNTRY SUB-OFFICE IN GAROWE, PUNTLAND, SOMALIA: IMPACT ON GLOBAL REAL ESTATE PRIORITIES**

8. The Executive Board at its 132nd session requested clarification on the impact of supporting construction of a new country sub-office in Garowe, Puntland, Somalia, on other refurbishment priorities.

9. All project proposals submitted by regional offices to the Capital Investment Master Plan Arbitration and Validation Panel for real estate funds are graded according to a validation methodology using six objectively measured indicators:

- security
- health and safety
- financial consequences
- environmental concerns

- new technology or obsolescence
- disaster response or locally applicable criteria.

10. Each indicator is subdivided to reflect graduation of priority. The security and safety indicators are weighted to prioritize the enhancement of premises security in accordance with resolution WHA63.7. The scores generated by all the indicators are totalled in order to derive the total score for each project. The projects with the highest scores are prioritized for funding, with security-justified projects filtered for first consideration.

11. It should be noted that the more vulnerable the location and the greater the impact of refurbishment or construction investment on reducing that vulnerability, the higher a proposed project will score in the security indicator.

12. The Garowe project was submitted for consideration with four other security-justified projects. It scored the highest security justification of any project submitted and had the second highest total across all six indicators.

13. In the wider context, spending US\$ 1.6 million on a new sub-office in Somalia could be seen as adding to the funding shortfall for the refurbishment of headquarters and other major offices. However, it should be noted that the current funding requirements for refurbishment at headquarters and in other major offices are too large for ad hoc capital injections from the Real Estate Fund which is why alternative funding arrangements are under consideration.

14. After comparing and reviewing all projects, the Capital Investment Master Plan Arbitration and Validation Panel recommended that all security-justified projects be supported with real estate funds.

## **UPDATE ON WHO'S REFURBISHMENT STRATEGY**

15. In 2010 a programme of repair and refurbishment of the individual buildings that make up the real estate portfolio of the headquarters site was initiated. However, recent studies have indicated that a comprehensive, site-wide, approach could reduce the impact of the construction work on the day-to-day operations of the Organization and facilitate operational savings over the longer term and may ultimately represent better value, over the life cycle of the buildings, than a piecemeal refurbishment solution.

16. Additionally, the review of management, administration and decentralization in WHO, undertaken by the Joint Inspection Unit,<sup>1</sup> recommended that WHO develop standard operating procedures for the management of the Capital Master Plan and its real estate portfolio. The new procedures subsequently developed require WHO to implement planned, preventative refurbishment and maintenance programmes that reduce the need for reactive and emergency repairs and that reduce operational costs and the frequency of breakdowns. Additionally, capital investments should be prioritized to facilitate compliance with United Nations Minimum Operating Security standards and the elimination or mitigation of health and safety risks. Wherever possible WHO will seek to improve the accessibility and environmental performance of its facilities.

17. The objectives of the updated headquarters refurbishment strategy are thus:

- to eliminate or mitigate health and safety risks

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<sup>1</sup> Document JIU/REP/2012/6.

- to comply with locally applicable legislation
- to reduce the long-term operational costs of the headquarters site
- to increase the flexibility of headquarters buildings so that the facilities can adapt to changing operational needs and support WHO's work in future decades.

18. The third and fourth objectives represent a significant shift in strategy from the 2010 refurbishment proposal,<sup>1</sup> which did not include long-term cost control or optimizing premises flexibility as project drivers.

19. The policy objectives will be applied to all WHO's real estate assets in the future. Work is under way to analyse the data recently derived from the global real estate inventory and to initiate more detailed condition surveys of WHO-owned facilities in order to assess global long-term real estate liabilities and manage and reduce operational costs over the long term.

20. Consideration is being given to the significant operational and maintenance costs of the Organization's buildings, and the potential for future, long-term rationalization and efficiency. In particular, it is important to ensure compliance with the United Nations Minimum Operating Security Standards and standards set by local laws. This approach implies a comprehensive, whole-life cost approach to facilities and real estate management, in partnership with host States and local authorities.

## CURRENT CONDITION OF HEADQUARTERS REAL ESTATE

21. Staffing needs at headquarters have increased since the completion of the main building in 1966, and the site has evolved in response to this. Table 4 below details the various headquarters buildings, their size and year of their construction.

**Table 4. Overview of headquarters buildings**

Building	Built	Cost at time of completion (CHF million)	Gross area (m <sup>2</sup> )	Maximum capacity (desks)	Building type
Main building	1967	15.9	42 900	1 318	Permanent
V building	1967	0.3	1 920	140	Temporary
X building	1972	0.6	2 772	169	Temporary
L1 building	1976	1.8	4 794	236	Prefabricated
L2 building	1982	3.7	5 636	314	Prefabricated
Restaurant building	1985	2.7	2 748	0	Permanent
M building	1989	14.2	7 510	340	Prefabricated
Executive Board temporary building	2001	1.5	906	48	Prefabricated
C building	2003	4.3	2 442	132	Prefabricated
D building	2006	25.6	27 664	308	Permanent
Total		70.6	99 292	3 005	

<sup>1</sup> See document A63/36.

22. With the exception of the main building and restaurant and the recently-added D building (a joint WHO/UNAIDS project) this evolution of the headquarters real estate is characterized by the construction of temporary buildings or low-cost, but high maintenance, prefabricated buildings. This policy has resulted in the use of relatively low-cost, short-term construction techniques, inadequate integration between the various building systems, expensive and inefficient short-term infrastructure solutions and poor environmental performance. Added to these issues is the gradual deterioration over time of the main building as the technical infrastructure and fixtures and fittings approach, or reach, the end of their design life. The discovery of asbestos-containing materials in the main building, the V building, and the L1 and L2 buildings adds additional health and safety risks and engineering complications to any future refurbishment solutions for these buildings.

23. The increasing risk of failure of critical building systems and the consequent risk to business continuity, coupled with the financial opportunity cost of not capitalizing on readily available cost efficiencies, means that a solution needs to be found.

### **THE CURRENT REAL ESTATE CHALLENGES AT HEADQUARTERS**

24. In 1967, the year after the construction of the headquarters main building was completed, the Health Assembly adopted resolution WHA20.23, in which it approved the construction of the first temporary building on the headquarters site. In the following decades, six more temporary or prefabricated buildings were added.

25. As these temporary and prefabricated buildings reach the end of their design life (typically 20 years) a number of real estate challenges have arisen:

#### **Environmental performance**

26. Large buildings require computerized management systems to optimize their heating and cooling performance. As the various buildings have been added to the headquarters site, holistic control of the various building systems has not been possible, resulting in sub-optimal energy performance.

27. Consecutive years of operational cost containment resulted in a reactive maintenance approach (in other words, repairing breakdowns) as an alternative to a programmed schedule of component replacement. This reactive approach has given rise to inefficient and obsolete building infrastructure equipment that is beyond its design life.

#### **Fire safety**

28. Each of the headquarters buildings was constructed in accordance with the fire safety regulations in force at the time. Since then, the regulations have evolved and some systems have become obsolete as spare parts become unobtainable. Fire safety improvements often require structural alterations and intensive and very disruptive interventions in building infrastructure.

#### **Flexibility of operations**

29. Two of the headquarters buildings were constructed using prefabricated containers. Three others were constructed using pre-cast concrete technology. Both of these construction methods produce inflexible office modules that prevent the Organization from adapting the work space to accommodate open plan team working, single occupancy offices or other variations. Office space utilization is less than totally efficient as a consequence, leading ultimately to increased operational costs.

## **Operational costs of facility management**

30. As the headquarters real estate developed, buildings were designed and procured according to lowest cost principles (a notable exception being the D building completed in 2006). A consequence of managing multiple smaller buildings, constructed in a variety of cost-efficient materials, is an increased cleaning and building maintenance cost compared with a single building constructed with low maintenance materials. Additionally, as each building was added, the integration of the requisite building management systems was not achieved due to the complexity, disruption and costs involved. This short-term approach hampers efforts to ensure cost control and efficiencies.

## **THE STRATEGIC CONTEXT AND BUSINESS NEED FOR COMPREHENSIVE RENOVATION**

31. In May 2010 the Health Assembly was informed that refurbishment of the main building would be conducted on a floor-by-floor basis. The project was estimated to cost 87 million Swiss francs (excluding temporary accommodation and logistics and the refurbishment of basements).<sup>1</sup> The Secretariat estimates that the works would take approximately 10 years to complete.

32. The Health Assembly then adopted resolution WHA63.7 authorizing the Director General, *inter alia*, to proceed with the technical studies necessary to facilitate a refurbishment of the headquarters main building and also to initiate the urgent works necessary to address immediate fire safety concerns in the main building.

33. The first phase of the urgent fire safety work to the main building was completed in 2012, although more work is still required to the basements in the main building and to all the other headquarters buildings. The fire safety work was slow and expensive to complete owing to the constraints of conducting construction work in an occupied building, and the highly invasive nature of the work to the building's infrastructure systems.

34. Lessons learnt from the urgent fire safety works indicate that a floor-by-floor refurbishment plan would significantly disrupt the normal operations of the building during the 10-year construction period, thus presenting serious risks to business continuity.

35. The engineering and architectural studies conducted since 2010 also indicate that the temporary and prefabricated headquarters buildings are also at the end of their planned design life and require extensive refurbishment, but that their architectural, infrastructure and operational limitations call into question the cost benefit of the substantial capital investment required to meet the real estate challenges noted previously in this document.

36. In view of these considerations, and mindful of the guidance from Member States and the recommendations of the Joint Inspection Unit to adopt long-term policies toward building management, a comprehensive, site-wide, refurbishment strategy was considered as an alternative to a floor-by-floor refurbishment limited to the main building.

37. Taking into account the condition of all buildings on the site within a comprehensive refurbishment approach, various options were considered and compared with the original floor-by-floor refurbishment of the main building proposed in 2010.

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<sup>1</sup> See document A63/36.

38. The study conducted by consultant engineers and architects concluded that a comprehensive rationalization and refurbishment of the headquarters real estate would cost at least US\$ 60 million less over the next 40–50 years than a piecemeal refurbishment of the existing individual buildings. Such a strategy would also be less disruptive to WHO and would facilitate long-term operational cost control and facilities flexibility while smoothing the capital investment needs by benefitting from Host State loan facilities.

39. A comprehensive site-wide plan offers a number of benefits. It would:

- address the long-term maintenance and refurbishment needs of all headquarters buildings
- reduce the total life-cycle cost of refurbishment as compared with piecemeal refurbishment of the existing buildings
- provide an opportunity to rationalize and reduce the number and size of the headquarters buildings, thereby reducing long-term operational costs
- allow compliance with local legislation, notably in relation to fire safety and the environment
- facilitate long-term reduction in building maintenance and operating costs through the introduction of modern, low maintenance, facilities
- provide an opportunity to rationalize and optimize information technology infrastructure
- maintain WHO's ability to support Member States during the refurbishment by limiting disruption
- reduce or eliminate risks to the safety of staff and visitors during the refurbishment by obviating the need for construction works in an occupied building
- provide the opportunity to smooth capital investment requirements over 50 years by means of Host State loans
- facilitate the protection of the architectural integrity of the headquarters main building.

## **PROJECT OPTIONS**

40. The study undertaken to re-evaluate the business case for the planned refurbishment considered the plan to refurbish the main building (option 4 in table 5 below) comparing it against three alternative options for achieving a site-wide, comprehensive refurbishment strategy for the WHO headquarters. The options are set out below.

### **Option 1. Construction of a new 1100-desk low-energy, low-maintenance building; demolition of three existing annex buildings; refurbishment of the main building; and sale of three other annex buildings**

41. In this option a new building would be constructed first, allowing the staff currently based in the main building to be housed elsewhere. Following completion of the new building, the staff would be relocated and, once empty, the main building would be refurbished. Following completion of the refurbishment, the staff from the annex buildings would be relocated to the main building and the redundant annex buildings demolished or sold.

### **Option 2. Construction of a new 300-desk temporary building; rental of space for 300 desks externally; renovation of the main building and existing annexes; and demolition of the temporary building at completion**

42. In this option a temporary building (consisting of containers) would be constructed to accommodate some of the staff from the main building. The remaining staff from the main building would be housed in rented offices off-site. The empty main building would be refurbished as well as the existing annexes. At the completion of the refurbishment the staff housed in rented accommodation would return and the temporary building would be demolished.

**Option 3. Rental of space for 600 desks externally; and refurbishment of the main building and existing annexes**

43. This option is similar to option 2 except that no temporary building would be constructed and more offices would be rented externally.

**Option 4. Vertical extension of L and M buildings to provide 260 desks; rental of space for 300 desks externally; and floor-by-floor refurbishment of main building and existing annexes**

44. In this option the L and M buildings would be extended, through the addition of temporary buildings, in order to provide additional space for staff displaced from the main building. Additional space would have to be rented externally. The empty main building would be refurbished, followed by the annexes. At the end of the project the temporary buildings, both newly added and existing, could be demolished.

45. The option to maintain and gradually repair the buildings was also compared against the planned refurbishment of the main building. Table 5 below provides a summary of the options. The estimated whole life costs of the options are indicated in Table 6.

**Table 5. Overview of headquarters refurbishment options**

	<b>2012 status quo</b>	<b>Maintenance and repairing existing buildings</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>	<b>Option 4</b>
<b>Solution description</b>	Current situation	Continued operation of the current site with gradual technical refurbishment	New building with 1100 desk capacity and renovation of main building	Temporary building with 300-desk capacity and rental of 300-desk capacity building; renovation of main building	Rental of 600-desk capacity building; renovation of the main building	Raising L and M buildings to add 260 desks, rental of 300-desk capacity building; renovation of main building two floors at a time
<b>Number of buildings at completion</b>	10	8	3	7	7	7
<b>Surface area (m<sup>2</sup>)</b>	97 517	94 691	91 289	92 249	92 249	92 249
<b>Electrical consumption (Kwh/year)</b>	8.249 million	7.820 million	3.372 million	4.210 million	4.210 million	4.341 million
<b>Maximum desk capacity</b>	3005	2732	2641	2600	2600	2860
<b>Total project duration</b>		20 years	10 years	10 years	9 years	12 years
<b>Duration of building work</b>		20 years	8 years	8 years	8 years	9 years

## Rationalizing space and controlling cost

46. Reducing the number of desk positions and therefore the size of the new building, reduces the costs. In the absence of information to the contrary, the study has been conducted using the assumption that the overall size of headquarters would remain constant. This assumption will be re-examined in the context of the continuing reform as significant cost savings are available in both construction and future operations costs if WHO reduces the overall size of the headquarters buildings.

**Table 6. Whole life cost of options measured over 40 years**

	<b>Maintenance and repairing existing buildings</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>	<b>Option 4</b>
	Continued operation of the current site with gradual technical refurbishment	New building with 1100 desk capacity and renovation of main building	Temporary building with 300-desk capacity and rental of 300-desk capacity building; renovation of main building	Rental of 600-desk capacity building; renovation of the main building	Raising L and M buildings to add 260 desks, rental of 300-desk capacity building; renovation of main building two floors at a time
<b>Investment (CHF million)</b>	134.5	234	129.6	116.2	140.1
<b>Operating and maintenance costs (40 years)</b>	383.3	323.1	377.2	382.4	383.1
<b>Costs of personnel moves (CHF million)</b>	7.0	4.9	3.5	3.5	3.4
<b>Property costs</b>	0	-82.5*	11.4	22.8	11.4
<b>Cash flow over 40 years (CHF million)</b>	524.8	479.5	521.7	524.9	538

\*Sale of buildings (L1, L2 and M).

## COMPARISON OF OPTIONS

47. Table 7 below provides an overview of the technical analysis of the four construction options and the maintenance and repair option.

Table 7. Comparison of the different options

Indicator	Maintenance and repair of existing buildings	Option 1	Option 2	Option 3	Option 4
Reduced maintenance costs	Neutral	Very satisfactory	Good	Neutral	Neutral
Site energy optimization	Neutral	Very satisfactory	Satisfactory	Satisfactory	Satisfactory
Rationalization and modernization of information technology networks	Neutral	Very satisfactory	Good	Good	Good
Urban and architectural integrity	Neutral	Satisfactory	Neutral	Neutral	Neutral
Minimized investment in maintenance or modernization of annexes	Unsatisfactory	Very satisfactory	Unsatisfactory	Unsatisfactory	Unsatisfactory
Improved fire and occupational safety	Good	Very satisfactory	Satisfactory	Satisfactory	Satisfactory
Improved flexibility and modularity of space	Neutral	Very satisfactory	Neutral	Neutral	Satisfactory
WHO image	Unsatisfactory	Very satisfactory	Satisfactory	Satisfactory	Satisfactory
Financial	Unsatisfactory	Satisfactory	Poor	Unsatisfactory	Very unsatisfactory
<b>Implementation</b>					
Maintaining operations during refurbishment	Unsatisfactory	Very satisfactory	Satisfactory	Satisfactory	Very unsatisfactory
Optimizing the renovation of the main building	Unsatisfactory	Very satisfactory	Very unsatisfactory	Very unsatisfactory	Very unsatisfactory
Reduced need for temporary facilities	Poor	Very satisfactory	Poor	Poor	Very unsatisfactory
Reduction of disruption during construction period	Satisfactory	Very satisfactory	Poor	Unsatisfactory	Poor
<b>Risks</b>					
Reduced financial risk	Very satisfactory	Good	Poor	Unsatisfactory	Poor
Reduced operating risks	Very satisfactory	Very satisfactory	Good	Good	Unsatisfactory
Reduced health and safety risks	Neutral	Very satisfactory	Good	Good	Good

## THE PREFERRED OPTION

### Cost

48. Taking into account the total life-cycle cost of refurbishment and operations, it is clear that option 1 above has the lowest whole-life cost (measured over a 40 year period – see Table 6). Operational elements represent over half the whole-life cost of a building. Reducing these operational costs will be critical to effective cost control in the future, as it is expected that utilities and operations costs will continue to increase significantly in the years ahead. The opportunity to exert some degree of future operations cost control is a strategic goal of WHO's real estate policy and a major driver in the proposed comprehensive, site-wide, refurbishment strategy.

49. **Option 1** includes the possibility of disposing of three annex buildings (L1, L2 and M buildings) made redundant by the construction of a new, low-maintenance, low-energy building. The value of these annex buildings has yet to be confirmed, but estimates indicate that their sale could finance a substantial proportion of the main building refurbishment. Equally, as the three annex buildings also require substantial refurbishment, dispensing of them offsets a refurbishment liability and is preferable to investment, as the prefabricated and inflexible construction of the buildings concerned, prejudices their future long-term service potential.

50. Option 1 also provides the possibility to smooth capital investment over the long term through access to Host State loans for new construction. Other options require significant capital injections for refurbishment, with payment profiles that would require full payment on completion of the construction works, rather than a gradual repayment of loans to the Host State.

### **Flexibility**

51. Option 1 offers the possibility of making the most flexible use of space. The disposal of the rigid and inflexible prefabricated buildings, opens up opportunities for reducing operational costs in the long term by reducing the overall surface area of headquarters offices.

### **Health and safety**

52. Constructing a new building makes it possible to ensure compliance with local legislation, without being hampered by the constraints of modifying existing buildings.

### **Reducing disruption during the works**

53. Option 1 offers the best mitigation of the risks associated with the invasive impact of the building work on the day-to-day operations of WHO. This is a significant factor as all of the options examined would take approximately 10 years to complete and the unquantifiable cost of disturbance to the work of WHO caused by construction work would be significant and long-lasting if not effectively mitigated. Central to the successful mitigation of such costs is the opportunity provided by option 1 to construct a new building, before disposal or demolition of existing annex buildings, thereby avoiding the need for expensive and disruptive temporary accommodation, and obviating the need to carry out refurbishment works in an occupied building.

54. Based on an analysis of the factors described above, option 1 – the construction of a new, low-energy, low-maintenance building, the demolition of three existing annex buildings, the refurbishment of the main building and the sale of three other buildings – is considered to be the optimum solution, representing best value for the Secretariat and Member States.

## **INTERIM REFURBISHMENT STRATEGY**

55. In 2010 it was noted that headquarters faced serious business continuity and health and safety risks, due to the poor condition of the main building. Some of these issues have been dealt with in 2012, following the completion of the first phase of urgent works. Notwithstanding the progress made in 2012, however, more work will be necessary in the period before the new building and the refurbished main building are completed.

56. In order to manage and mitigate operational risk and costs at headquarters, an interim refurbishment strategy will be launched in parallel with the work to construct a new building. This strategy will focus on tackling issues that represent a serious health and safety risk or that constitute a positive return on investment within the refurbishment timeline. The replacement of the heat production unit in the main building is a possible example, where early replacement could result in sufficient operational savings to justify immediate investment. Studies are under way to establish the interim strategy and the results would be incorporated into the headquarters Capital Master Plan and submitted for funding approval through the Capital Investment Master Plan Arbitration and Validation Panel.

## **FINANCING**

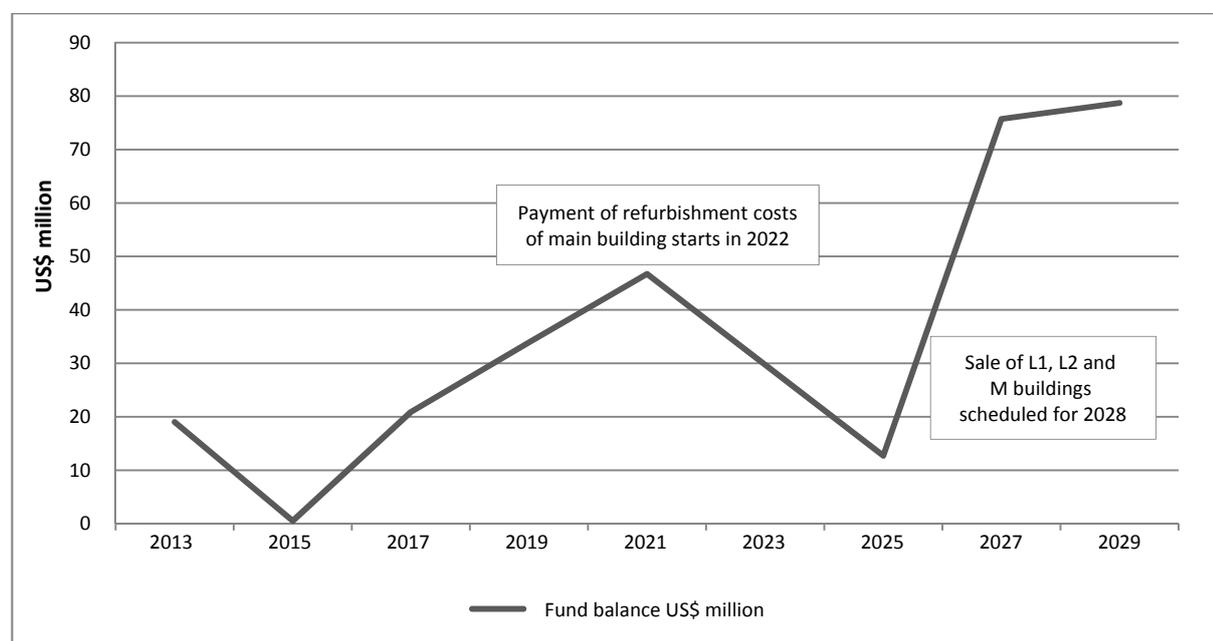
57. The total cost of undertaking a comprehensive renovation based on the revised business case is estimated at CHF 234 million over the next 15 years (CHF 143 million for a new building and CHF 91 million for the refurbishment of the main building).

58. Previously, the Host State has been willing to make available interest free loans, repayable over 50 years, for new construction. The proposal to seek a loan from the Host State, for the construction of a new building, is based on the understanding that such a loan could be repaid through the sustainable financing mechanism for the Real Estate Fund. A precedent for such a strategy exists, most recently in 2003 with the construction of the shared WHO/UNAIDS building at headquarters, authorized by the Health Assembly in resolution WHA56.13. However, this mechanism was used to fund the main building and L and M buildings.

59. The sustainable financing mechanism for the Real Estate Fund was established in 2010. A levy of 1% (the real estate component of the post occupancy charge) is applied to staff costs and currently generates approximately US\$ 7.5 million per year. An additional appropriation of US\$ 10 million per budget period from Member States' non-assessed income, as authorized by resolution WHA63.7, would provide a total of US\$ 25 million per budget period.

60. The figure below indicates the payments and the balance of the Real Estate Fund for the construction of a new building and the refurbishment of the main building. The chart also includes the funding needs of the regional offices as indicated in the 2012 update of the global Capital Master Plan and the interim refurbishment strategy as noted above.

61. In this scenario, the sustainable mechanism of the Real Estate Fund would fund the repayment of a loan for the new construction and the refurbishment costs for the main building. The sale of the L1, L2 and M buildings following the completion of the main building refurbishment would replenish the Fund and provide a suitable platform from which to fund future real estate investments, while facilitating a reduced appropriation from unimplemented assessed contributions.

**Figure. Balance of the Real Estate Fund****Table 8. Proposed future financing arrangements: estimated needs and expenditure of the Capital Master Plan if the proposed optimum refurbishment solution at headquarters is retained**

Budget bienniums	Projected capital master plan resource requirements US\$ million	Projected contribution from sustainable financing mechanism US\$ million	Projected balance of Real Estate Fund US\$ million
2012–2013	35.550	15	19.0
2014–2015	18.495	25	0.5
2016–2017	19.609	25	20.9
2018–2019	11.987	25	33.9
2020–2021	12.190	25	46.7
2022–2023	42.000	25	29.7
2024–2025	42.000	25	12.7
2026–2027	42.000	25	27.7
2028–2029	12.000	15	78.7

62. Table 9 below represents the impact of the updated headquarters refurbishment strategy on the global resource needs for the Capital Master Plan. Comparison with Table 1 (representing the resource needs associated with the former strategy) reveals a reduced funding requirement over the next five budget periods of over US\$ 100 million and a smoother long-term investment profile.

**Table 9. Revised renovation strategy: summary of the Capital Master Plan resource needs**

Regional office/location	Estimated cost (US\$ million)					Total
	2012–2013	2014–2015	2016–2017	2018–2019	2020–2021	
Africa	4.054	2.000	1.915	1.950	0.800	<b>10.719</b>
The Americas	2.001	0.990	0.564	0.537	1.290	<b>5.382</b>
South-East Asia	4.445	6.180	7.405	1.150	1.600	<b>20.780</b>
Europe	5.258	1.200	1.200	1.250	1.250	<b>10.185</b>
Eastern Mediterranean	4.442	1.825	2.225	0.800	0.950	<b>10.242</b>
Western Pacific	1.830	1.000	1.000	1.000	1.000	<b>5.830</b>
Headquarters	13.000	5.300	5.300	5.300	5.300	<b>34.200</b>
<b>Total</b>	<b>35.030</b>	<b>18.495</b>	<b>19.609</b>	<b>11.987</b>	<b>12.190</b>	<b>97.311</b>

## TIMELINES

63. Table 10 below indicates a possible time frame. These are preliminary estimates and subject to adjustment depending on the approval of the Health Assembly and administrative processes and requirements of the Host State and its administrative organs.

**Table 10. Estimated timelines**

Stage	Date	Comments
Preliminary studies and discussions with Host State	Continuing	
Governing body approval in principle	May 2014	
Host State approval for finance	Requires further clarification with Host State	Could be undertaken in parallel
Design competition	May 2015	
Detailed studies	May 2016	
Host State building approval	December 2016	
Construction procurement	June 2017	
Construction period of new building	2017–2022	5 years – demolition of X and C buildings
Occupancy of new building	2023	Staff from main building move to new building
Refurbishment of main building	2023–2027	Staff from L1, L2, M and remaining annex building move to main building
Sale of L1, L2 and M buildings	2028	

## ACTION BY THE HEALTH ASSEMBLY

64. The Health Assembly is invited to note the report and to give guidance on the proposed updated strategy for the headquarters refurbishment; and to approve the construction of a new WHO sub-office in Garowe, Puntland, Somalia.

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