



INTERNAL AUDIT DIVISION

REPORT 2019/044

Desk review of the seismic mitigation retrofit and life-cycle replacements project in the Economic and Social Commission for Asia and the Pacific

There was a need to strengthen project governance and internal controls to mitigate against project risks, including potential delays

17 June 2019

Assignment No. AN2019/740/01

Desk review of the seismic mitigation retrofit and life-cycle replacements project in the Economic and Social Commission for Asia and the Pacific

EXECUTIVE SUMMARY

The Office of Internal Oversight Services (OIOS) conducted a desk review of the seismic mitigation retrofit and life-cycle replacements project in the Economic and Social Commission for Asia and the Pacific (ESCAP). The objective of the desk review was to determine whether ESCAP internal controls over the project were implemented effectively to ensure its timely completion within the scope and budget approved by the General Assembly. The review covered the period from March 2018 to February 2019 and included (a) the functioning of the governance and oversight mechanisms established in phase 2 of the project, including the Stakeholders Committee and Change Control Board; (b) project scope, quality, schedule and human resources management; and (c) project procurement and contract management.

ESCAP needed to strengthen project governance and internal controls to mitigate against project risks, including potential delays and fraud and corruption risks. While there is a current risk that the project could be delivered at a higher cost than budgeted, this was being mitigated as part of the project risk management process.

OIOS made three recommendations. To address issues identified in the audit, ESCAP needed to:

- Ensure that the Stakeholders Committee meets at least quarterly and contributes proactively to the management of the project;
- With support from the Global Asset Management Policy Service, formally review lessons learned during the design phase of the project to help improve the efficiency and effectiveness of the remaining phases; and
- Conduct systematic fraud and corruption risk assessments as part of the risk management framework of the seismic mitigation retrofit and life-cycle replacements project.

ESCAP accepted the recommendations and has initiated action to implement them.

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Desk review of the seismic mitigation retrofit and life-cycle replacements project in the Economic and Social Commission for Asia and the Pacific

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted a desk review of the seismic mitigation retrofit and life-cycle replacements project (SMP) in the Economic and Social Commission for Asia and the Pacific (ESCAP).
2. The SMP was approved by the General Assembly in December 2016 through its resolution 71/272. The overarching objective of the project is to ensure the health and safety of staff, delegates and visitors at the Commission's premises in Bangkok through: (a) retrofitting the ESCAP secretariat and service buildings to mitigate against seismic risks; (b) updating building life-safety systems to meet current standards; and (c) replacing systems that have reached the end of their useful lives. The project is also expected to result in improved accessibility, as well as energy and space efficiency.
3. The General Assembly approved a project budget of \$40 million, including an escalation provision of \$4.8 million and a contingency reserve of \$3.2 million. A total of \$4.9 million had been appropriated to the project up to December 2018. Cumulative project expenditure amounted to \$3.4 million as of February 2019, leaving an unspent balance of \$1.5 million. The expenditure was incurred on professional services and project management costs, as construction activities had not yet started. To meet the projected expenditure of \$5.6 million for 2019, mostly for swing space construction costs and professional services, the General Assembly appropriated an additional \$4.5 million to the project through its resolution 73/279.
4. According to the latest report of the Secretary-General on the SMP (A/73/327 dated 16 August 2018), the design phase of the project was expected to be completed by December 2018 so that the tendering process for the general contractor could be completed in time for construction to begin in 2020. As of May 2019, ESCAP had revised the expected date of issuance of the request for proposal from January to June 2019 because of delays in finalizing the construction documents.
5. The Executive Secretary of ESCAP is the SMP owner with overall accountability for the project. The SMP owner designated the ESCAP Director of Administration as the project executive to oversee all strategic and operational issues related to the project. ESCAP also established a Stakeholders Committee to support project governance, and a Change Control Board (CCB) to review and approve change requests. The Global Asset Management Policy Service (GAMPS) in the Department of Management Strategy, Policy and Compliance (DMSPC) provides additional support, including risk management support. A Project Coordinator post at the P-4 level was established at Headquarters to provide risk management and other support to construction projects at ESCAP and the Economic Commission for Africa.
6. The SMP project has a dedicated project team with eight approved posts, including a project manager at the P-5 level. The Building Electromechanical Engineer position at the National Officer level was unoccupied from 1 January 2018 to 31 January 2019. Two of the posts, a Logistics Officer at the National Officer level and an Information Technology Officer at the G-6 level, were approved by the General Assembly effective from 1 January 2019. The cumulative cost of this dedicated project management and support team up to February 2019 was \$1.2 million.
7. Comments provided by ESCAP and DMSPC are incorporated in italics.

II. REVIEW OBJECTIVE, SCOPE AND METHODOLOGY

8. The objective of the desk review was to determine whether ESCAP internal controls over the seismic mitigation retrofit and life-cycle replacements project were implemented effectively to ensure timely completion of the project within the scope and budget approved by the General Assembly.

9. The review was included in the 2019 risk-based work plan of OIOS due to the General Assembly's request for OIOS to provide oversight of the project and include information on its key findings in its annual report to the General Assembly (A/RES/71/272).

10. OIOS conducted this review in March and April 2019. The review covered the period from March 2018 to February 2019. Based on an activity-level risk assessment, the review covered higher and medium risk areas in the seismic mitigation retrofit and life-cycle replacements project, which included: (a) the functioning of the governance and oversight mechanisms established in phase 2 of the project, including the Stakeholders Committee and CCB; (b) project scope, quality, schedule and human resources management; and (c) project procurement and contract management.

11. The methodology consisted of a desktop review of relevant project documentation and analytical review of data available in Umoja. In addition, IAD conducted limited sample testing of control activities and interviews of key project personnel through telephone and video conferences.

12. The review was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

III. REVIEW RESULTS

A. Project governance and oversight

The SMP Stakeholders Committee needed to meet at least quarterly

13. The project Stakeholders Committee (the Committee) was established in 2017 to provide oversight and guidance to the SMP project owner, in line with Secretariat guidelines for "large and complex projects"¹. Its mandate is to support the Executive Secretary and Director of Administration at ESCAP to proactively manage the project. The Committee is chaired by the ESCAP Executive Secretary and its membership consists of the Chief of GAMPS and functional leads at ESCAP, including the Director of Administration. Four representatives of United Nations entities that are tenants in the ESCAP building sit in the Committee as observers. According to its terms of reference, the Committee is expected to meet every quarter until project completion in 2023. The ESCAP biannual risk management report dated 18 July 2018 identified proactive engagement of the Committee during the design phase as a key mitigating measure for at least two key risks, namely risks related to exterior façade upgrades and office space conversion.

14. In its past reporting to the General Assembly, ESCAP indicated that the Stakeholders Committee meets quarterly. However, the Committee met twice during 2018 as meetings that had been scheduled for July and October were cancelled and Committee members were instead provided with project status updates through emails. ESCAP indicated that the meetings were cancelled because there were no decisions

¹ According to the Secretary-General's report on the Strategic Capital Review (A/72/393), the Secretariat established criteria for classifying projects into one of three categories to determine how the project is governed and managed: (a) large-scale, (b) large and complex, and (c) largest and most complex. The SMP is classified as "large and complex," meaning it required an internal Stakeholders Committee to enhance project governance, and a dedicated project management team. Within this category, an external Advisory Committee is also considered preferable, but ESCAP did not establish one for the SMP.

requiring the Committee to meet and ESCAP also did not have a substantive Executive Secretary between 1 June and 31 October 2018. The Executive Secretary usually chairs the Stakeholders Committee meetings. ESCAP also stated that the Stakeholders Committee would be convened more frequently once actual construction had begun, to deliberate on operational issues such as occupancy planning. A review of minutes of meetings indicated that when the Committee did meet, it had robust conversations covering various aspects of the project, including risk management, change management and project status updates.

15. Nevertheless, the infrequent meetings of the Committee diminished the effectiveness of its contributions to project governance and risk management as highlighted in our previous report (report 2018/054 issued on 5 June 2018). OIOS recommended, at the time, that ESCAP should ensure that the Committee met regularly to provide feedback and guidance regarding important issues related to project implementation. This would give an opportunity for the Committee to proactively review the status of the project and therefore fulfil its responsibility to provide advice to the project owner and project executive. Although ESCAP initially implemented this recommendation, the frequency of meetings was not sustained as described above.

(1) ESCAP should ensure that the Stakeholders Committee meets at least quarterly and contributes proactively to the management of the seismic mitigation retrofit and life-cycle replacements project.

ESCAP accepted recommendation 1. Recommendation 1 remains open pending receipt of minutes of the quarterly meetings of the Committee.

B. Procurement and contract management

ESCAP needed to formally review lessons learned from the design phase of the project as final construction documents were delayed by several months

16. Under its original contract with ESCAP, the lead consulting firm (LCF) was expected to deliver the final construction documents by 23 November 2018 so that the request for proposals for the general contractor would be issued on 3 January 2019. The delivery date for the final construction documents was later revised to 6 February 2019, according to the latest amendment (amendment 3) to the LCF contract.

17. OIOS observed that the tendering process for the main construction contract had not commenced as of April 2019 as the construction documents were yet to be approved by ESCAP. Based on discussion with ESCAP, the request for proposals for the general contractor was rescheduled to be issued by mid-June 2019, four months behind the original schedule. The causes of the delays included:

(a) Quality of deliverables from the LCF. Project documentation, including minutes of meetings between GAMPS and the ESCAP SMP project team, indicated that some design deliverables from the LCF fell short of ESCAP expectations, which resulted in rework and contributed to delays in delivery of subsequent deliverables. ESCAP stated that the LCF's working remotely from Spain and the attendant time-zone differential between Spain and Thailand made timely turn-around of deliverables more challenging; and

(b) Impact of ESCAP-requested changes. ESCAP, through contract amendment 2, requested the LCF to change the scope of design to incorporate non-structural components that were not previously in scope.

18. Consequently, ESCAP amended its contract with the LCF to add a “get to final design workshop” in January 2019, which was expected to speed up the final design deliverable and improve its quality, taking advantage of the physical presence in Bangkok of technical teams and key decision-makers from ESCAP, the LCF and other key stakeholders.

19. Through several resolutions, the General Assembly had constantly emphasized the importance of learning lessons from other construction projects, a principle that can also be applied incrementally within a project to avoid similar problems in future phases. While formal lessons learned exercises are typically conducted during project close-out, institutional memory may be lost due to the passage of time and potential staff turnover within ESCAP and its vendors. ESCAP should therefore formally review lessons learned from the design phase of the SMP to understand the root causes of the delays in finalizing construction documents. The lessons learned should also feed into the LCF’s performance evaluation, which is required to be conducted annually in accordance with United Nations procurement guidelines. As the LCF is also expected to supervise construction, the lessons learned exercise will not only help to enhance efficiency and effectiveness of future phases of the SMP, but also inform future United Nations construction projects and related guidelines.

(2) ESCAP should, with support from the Global Asset Management Policy Service in DMSPC, formally review lessons learned during the design phase of the seismic mitigation retrofit and life-cycle replacements project to help improve the efficiency and effectiveness of the remaining phases of the project.

ESCAP accepted recommendation 2 and stated that it had already begun to work, with support from GAMPS, on identifying lessons learned. A formal review would be undertaken and documented. Recommendation 2 remains open pending receipt of the results of the lessons learned review and their application, as appropriate, in the other project phases.

C. Project management

Construction documents indicate that there is a significant risk that project costs may exceed the approved budget

20. Following the quantitative (Monte Carlo) analysis of project risks conducted in 2018, ESCAP reported to the General Assembly that total project costs were at risk of exceeding the budget by an estimated \$2.5 million. Since then, ESCAP and the LCF have progressed in preparing design specifications and quantity surveys, and have conducted three value engineering exercises to keep the costs within the approved budget. As of April 2019, the increase in project costs is estimated at \$2.57 million, comprising increases in the trade costs for the main works and consultancy fees and a decrease in swing space costs.

21. The estimated trade costs for the main works increased primarily because of items within the scope of life-safety replacements that were under-budgeted, and the fire and life-safety mitigation works that were discovered after the project had entered the design phase. The estimated consultancy fees exceeded their budgeted amount in part because the LCF contract was awarded at \$632,000 above budget following a competitive procurement process. ESCAP also made some amendments to the LCF contract that resulted in cost increases and hired another firm to conduct peer reviews of the construction documents prepared by the LCF. Swing space costs are now estimated to be below the original budget due to the adoption of a more cost-effective swing space strategy that eliminated the need for off-site swing space.

22. ESCAP estimates that the previously unforeseen fire and life-safety mitigation works could be funded from the contingency reserve if bids for the general contractor come in at or slightly above current cost estimates. The increase in consultancy fees was funded from the decreased provision for cost

escalation, resulting from changes to the estimation and construction methodologies and eliminating the option for off-site swing space. Additional value engineering exercises are expected to be conducted during the life of the project that could reduce costs further to within limits approved by the General Assembly. Changes in cost estimates were also affected by fluctuations in currency exchange rates.

23. ESCAP may also incur costs that arose as a direct consequence of the SMP but were not included in the original project scope and budget estimates. These include: (a) elevator upgrades necessitated by higher traffic due to improved space efficiency; (b) converting the Ground floor, Block A, East Wing from swing-space to long-term use; and (c) additional sub-projects, such as septic tanks. These sub-projects are expected to be completed by the SMP General Contractor. Costs and funding for some of them were still to be determined as of review date.

24. ESCAP was highly cognizant of the need to deliver the project within the approved budget and continuously monitored the risk of potential cost overruns. In view of the upcoming procurement processes and the ongoing consideration of potential cost overruns in the project risk management process, OIOS did not make a recommendation in that regard. Considering the importance of the project to the long-term safety of staff and visitors to the ESCAP premises, it is however important for ESCAP to ensure that a high standard of quality is maintained in the project, even as several rounds of value engineering and other cost-cutting measures are undertaken.

ESCAP needed to assess fraud and corruption risks in relation to the SMP

25. In line with project management guidelines, ESCAP maintained a risk register for the SMP. Project risk management processes were supported by GAMPS and an independent risk management firm. As of the review date, the SMP risk register listed 20 risks across different categories, 11 of which were assessed as being high risk, 8 were assessed as medium and 1 as low risk. The highest residual risks were: (a) costs escalation due to inflation and other market factors; (b) delays in procuring the general contractor contract; (c) office space conversion; and (d) poor quality of deliverables from the LCF. OIOS observed, however, that the current risk register did not reflect any fraud and corruption risks related to the construction project. ESCAP was expected to conduct systematic fraud risk assessments as part of its risk management framework in accordance with the United Nations Anti-Fraud and Anti-Corruption Framework (ST/IC/2016/25). Such assessment should include known fraud risk factors, potential fraud schemes, control gaps and identified red flags. There was also no consideration of fraud and corruption risks in meetings of the Stakeholders Committee.

(3) ESCAP should conduct systematic fraud and corruption risk assessments as part of the risk management framework of the seismic mitigation retrofit and life-cycle replacements project.

ESCAP accepted recommendation 3 and stated that it would organize a workshop among project team members, GAMPS and relevant procurement personnel to conduct a fraud and corruption risk assessment. DMSPC added that it would support ESCAP in this endeavour. Recommendation 3 remains open pending receipt of the project fraud risk register.

IV. ACKNOWLEDGEMENT

26. OIOS wishes to express its appreciation to the management and staff of ESCAP for the assistance and cooperation extended to the auditors during this assignment.

(Signed) Eleanor T. Burns
Director, Internal Audit Division
Office of Internal Oversight Services

STATUS OF AUDIT RECOMMENDATIONS

**Desk review of the seismic mitigation retrofit and life-cycle replacements project in the
Economic and Social Commission for Asia and the Pacific**

Rec. no.	Recommendation	Critical²/ Important³	C/ O⁴	Actions needed to close recommendation	Implementation date⁵
1	ESCAP should ensure that the Stakeholders Committee meets at least quarterly and contributes proactively to the management of the seismic mitigation retrofit and life-cycle replacements project.	Important	O	Submission of minutes of the quarterly meetings of the Stakeholders' Committee.	31 December 2019
2	ESCAP should, with support from the Global Asset Management Policy Service in DMSPC, formally review lessons learned during the design phase of the seismic mitigation retrofit and life-cycle replacements project to help improve the efficiency and effectiveness of the remaining phases of the project.	Important	O	Submission of the results of the lessons learned review and their application, as appropriate, in the other project phases.	31 March 2020
3	ESCAP should conduct systematic fraud and corruption risk assessments as part of the risk management framework of the seismic mitigation retrofit and life-cycle replacements project.	Important	O	Submission of the project fraud risk register.	31 December 2019

² Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.

³ Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

⁴ C = closed, O = open

⁵ Date provided by ESCAP in response to recommendations.

APPENDIX I

Management Response

Management Response

Desk review of the seismic mitigation retrofit and life-cycle replacements project in the Economic and Social Commission for Asia and the Pacific

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	ESCAP should ensure that the Stakeholders Committee meets at least quarterly and contributes proactively to the management of the seismic mitigation retrofit and life-cycle replacements project.	Important	Yes	Director of Administration	31 December 2019	ESCAP accepts this recommendation.
2	ESCAP should, with support from the Global Asset Management Policy Service, formally review lessons learned during the design phase of the seismic mitigation retrofit and life-cycle replacements project to help improve the efficiency and effectiveness of the remaining phases of the project.	Important	Yes	Director of Administration	31 March 2020	ESCAP accepts this recommendation and confirms that it has already begun to work, with support from GAMPS, on identifying lessons learned (e.g. we foresaw the need for a peer review, which was already performed). A formal review will be undertaken and documented as well, with the target date shown.
3	ESCAP should conduct systematic fraud and corruption risk assessments as part of the risk management framework of the seismic mitigation retrofit and life-cycle replacements project.	Important	Yes	Director of Administration	31 December 2019	ESCAP accepts this recommendation. ESCAP and GAMPS are of the view that the systematic fraud risk assessments should be done at the departmental level as part of ESCAP's enterprise risk management framework. ESCAP has initiated its process in developing a risk register under the enterprise risk management framework. However, as of the time of audit, this is still being developed. Nevertheless, taking into the concerns

¹ Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.

² Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

Management Response

**Desk review of the seismic mitigation retrofit and life-cycle replacements project in the
Economic and Social Commission for Asia and the Pacific**

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
						raised by OIOS, ESACP will organize a workshop amongst project team members, GAMPS and relevant procurement personnel to conduct this assessment.

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INTEROFFICE MEMORANDUM

MEMORANDUM INTERIEUR

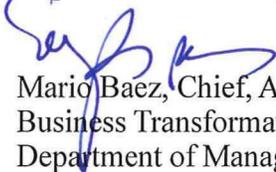
TO: Mrs. Muriette Lawrence-Hume, Chief
A: New York Audit Service
Internal Audit Division, OIOS

DATE: 12 June 2019

THROUGH: Olga de la Piedra, Director
S/C DE: Office of the Under-Secretary-General
Department of Management Strategy, Policy and Compliance



FROM: Mario Baez, Chief, Accountability Service
DE: Business Transformation and Accountability Division
Department of Management Strategy, Policy and Compliance



SUBJECT: **Draft OIOS report on a desk review of the seismic mitigation retrofit and life-cycle replacements project in the Economic and Social Commission for Asia and the Pacific (AN2019/740/01)**
OBJET:

1. With reference to your request letter dated 30 May 2019, please find below comments provided by the Field Operations Finance Division (FOFD) at the Office of Programme Planning, Finance and Budget (OPPFB) as well as Business Transformation and Accountability Division (BTA) at the Department of Management Strategy, Policy and Compliance (DMSPC).

Field Operations Finance Division (FOFD)

Recommendation 2

2. We understand that ESCAP accepted this recommendation with an estimate implementation target date of 31 March 2020. In addition, the Global Asset Management Policy Service (GAMPS) at Field Operations Finance Division would like to note that the SMP team has already begun to work, with support from GAMPS, on identifying lessons learned (which foresaw the need for a peer review, which was already performed). A formal review will be undertaken and documented before the above referred target date.

Business Transformation and Accountability Division (BTA)

Recommendation 3

3. As per the seventh progress report on the accountability system in the United Nations Secretariat (A/72/773) that refers to the implementation of the “three lines of defense” model in the United Nations Secretariat operational managers at the first line

of defense -in this case ESCAP- are responsible for owning and managing the risks associated with their operations, and for establishing and maintaining effective internal controls, and for ensuring that the activities implemented by the Organization are aimed at achieving its goals and objectives. They will also be responsible for the timely implementation of any corrective actions that are required to address any process and control deficiencies. The second line of defence is primarily exercised by the Business Transformation and Accountability Division (BTA) in DMSPC is responsible for developing and maintaining the policy framework and the methodology and tools for enterprise risk management in the Secretariat and for the provision of technical advice and support to senior managers for the implementation of risk assessments in their respective departments

4. ESCAP as the first line of defence is responsible for the development of a departmental risk register under the enterprise risk management framework. The Department of Management Strategy, Policy and Compliance will provide all the support ESCAP might require in this endeavour.

5. Thank you for the opportunity to provide comments on the detailed audit results.

cc: Ms. Matthews
Ms. Costa
Mr. Losi