



**OIOS**

Office of Internal Oversight Services

## **INTERNAL AUDIT DIVISION**

# **AUDIT REPORT**

---

## **Travel arrangements in UNMIT**

**Inadequate internal controls over travel and related entitlements**

**27 August 2009**

**Assignment No. AP2009/682/06**

---

United Nations  Nations Unies

INTEROFFICE MEMORANDUM

MEMORANDUM INTERIEUR

OFFICE OF INTERNAL OVERSIGHT SERVICES · BUREAU DES SERVICES DE CONTRÔLE INTERNE  
INTERNAL AUDIT DIVISION · DIVISION DE L'AUDIT INTERNE

TO: Mr. Atul Khare  
A: Special Representative of the Secretary-General  
UNMIT

DATE: 27 August 2009

REFERENCE: IAD: 09- 02784

*Fatoumata*  
FROM: Fatoumata Ndiaye, Acting Director  
DE: Internal Audit Division, OIOS

SUBJECT: **Assignment No. AP2009/682/06 - Audit of travel arrangements in UNMIT**  
OBJET:

1. I am pleased to present the report on the above-mentioned audit.
2. In order for us to close the outstanding recommendations, we request that you provide us with the additional information as discussed in the text of the report and also summarized in Annex 1.
3. Please note that OIOS will report on the progress made to implement its recommendations, particularly those designated as high risk (i.e., recommendations 1, 3, 5 and 7) in its annual report to the General Assembly and semi-annual report to the Secretary-General.

cc: Mr. Hubert H. Price, Chief of Mission Support, UNMIT  
Mr. Jonathan Childerley, Chief Administrative Services, UNMIT  
Ms. Carla Compagno, Chief of Travel and Traffic Unit, UNMIT  
Mr. Swatantra Goolsarran, Executive Secretary, UN Board of Auditors  
Ms. Suzanne Frueh, Executive Secretary, Joint Inspection Unit  
Mr. Seth Adza, Chief, Audit Response Team, Department of Field Support  
Mr. Moses Bamuwanye, Chief, Oversight Support Unit, Department of Management  
Mr. Byung-Kun Min, Programme Officer, OIOS  
Ms. Eleanor Burns, Chief Peacekeeping Audit Service, Internal Audit Division, OIOS

---

## INTERNAL AUDIT DIVISION

---

### **FUNCTION**

*“The Office shall, in accordance with the relevant provisions of the Financial Regulations and Rules of the United Nations examine, review and appraise the use of financial resources of the United Nations in order to guarantee the implementation of programmes and legislative mandates, ascertain compliance of programme managers with the financial and administrative regulations and rules, as well as with the approved recommendations of external oversight bodies, undertake management audits, reviews and surveys to improve the structure of the Organization and its responsiveness to the requirements of programmes and legislative mandates, and monitor the effectiveness of the systems of internal control of the Organization” (General Assembly Resolution 48/218 B).*

---

### **CONTACT INFORMATION**

#### **ACTING DIRECTOR:**

Fatoumata Ndiaye: Tel: +1.212.963.5648, Fax: +1.212.963.3388,  
e-mail: [ndiaye@un.org](mailto:ndiaye@un.org)

#### **CHIEF, PEACEKEEPING AUDIT SERVICE:**

Eleanor Burns: Tel: ++1.212.917.2792, Fax: ++1.212.963.3388,  
e-mail: [burnse@un.org](mailto:burnse@un.org)

---

## **EXECUTIVE SUMMARY**

### **Travel arrangements**

OIOS conducted an audit of travel arrangements in the United Nations Integrated Mission in Timor-Leste (UNMIT). The overall objective of the audit was to assess the adequacy and effectiveness of internal controls over travel and related entitlements. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

The audit identified opportunities for improvement in the overall management of travel services, particularly with regard to travel related lump-sum payments as follows:

- UNMIT was not sufficiently prepared to perform lump-sum travel calculations at the time authority was delegated to UNMIT, as they lacked the necessary capacity. Additionally, the unclear rules and guidelines on lump-sum calculations, coupled with the lack of properly promulgated standard operating procedures resulted in the inconsistent application of travel policies and, in some instances, the payment of inconsistent travel entitlements to staff;
- Staff in the Travel and Traffic Unit were not properly trained on fare construction and ticketing prior to the delegation of authority, and no centralized training programme was provided;
- The travel related lump-sum payment calculations were not adequately documented, resulting in a lack of transparency;
- Although a global systems contract for shipment services had been established, the Mission used a local agent, potentially losing out on annual savings of \$250,000; and
- No competitive bidding was conducted for travel services, and UNMIT has been using UNDP's contracted travel agent in Jakarta since its inception.

OIOS made a number of recommendations to address the weaknesses identified by the audit. The Mission has already initiated action to implement the recommendations.

## TABLE OF CONTENTS

Chapter	Paragraphs
I. INTRODUCTION	1-4
II. AUDIT OBJECTIVES	5
III. AUDIT SCOPE AND METHODOLOGY	6-9
IV. AUDIT FINDINGS AND RECOMMENDATIONS	
A. Improper calculation of travel related lump-sum payments	10-29
B. Lack of travel services contract	30-32
C. Unutilized system contract for shipments	33-34
V. ACKNOWLEDGEMENT	35
ANNEX 1 – Status of Audit Recommendations	

## I. INTRODUCTION

1. The Office of Internal Oversight Services (OIOS) conducted an audit of procurement management in the United Nations Integrated Mission in Timor-Leste (UNMIT). The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

2. The Travel and Traffic Unit (TTU) is in the General Support Services Section of the Office of Mission Support and is located at Mission Headquarters in Dili. The main activities of the TTU are to: (a) process travel requests; (b) calculate travel related lump-sum payments; (c) arrange shipment of personal effects; (d) process visa requests; (e) arrange travel and accommodation for delegations and visitors; and (f) verify travel invoices.

3. The TTU provides services to 350 international staff, 150 United Nations Volunteers (UNVs) and 1,500 police and military personnel. Its budget for the financial years 2007-2008 and 2008-2009 was \$7.1 million and \$6.8 million, respectively. The breakdown of budget allocation and expenditures are shown in Table 1.

Table 1- Travel budget in 2007-8 and 2008-9 financial years (in USD)

Budget line	Allotment 2007-08	Expend. 2007-08	Allotment 2008-09	Expend. as of 31.1.09
Travel-Employment, Rotation, Repatriation - Uniformed Personnel	2,477,200	2,164,435	1,633,700	802,388
Home Leave and Family Visit Travel - International Staff (IS)	817,000	815,423	1,080,400	734,357
Travel on Appointment, Separation, Assignment, Repatriation (IS-UNVs)	1,867,000	5,367,058	1,159,000	1,032,883
Travel for Training & Meetings	1,001,900	927,528	2,423,400	516,878
Travel within Mission	425,000	420,607	304,200	790,350
Other Official Travel	410,000	389,641	0	287,928
Training Fees, Supplies & Services	157,700	93,003	181,900	50,032
<b>Total</b>	<b>7,155,800</b>	<b>10,177,695</b>	<b>6,782,600</b>	<b>4,214,816</b>

4. Comments made by UNMIT are shown in *italics*.

## II. AUDIT OBJECTIVES

5. The main objective of the audit was to assess the adequacy and effectiveness of internal controls over travel and related entitlements.

## III. AUDIT SCOPE AND METHODOLOGY

6. The audit covered the financial period from 1 July 2007 to 31 January 2009. More specifically, the audit focused on travel authorizations issued after 13 August 2007, the date the Department of Field Support (DFS) delegated the authority to determine travel related lump-sum payments to the Missions. The

---

TTU processed 1,831 travel requests in the period 1 July 2007 to 31 January 2009.

7. OIOS selected a sample of 110 travel authorizations for review with a total value of \$642,000, interviewed key staff of the Office of Mission Support and examined pertinent documents and records.

8. The main constraints of the audit in verifying the accuracy of the lump-sum payments were: (i) fare quotations could not be checked retroactively using the Global Distribution System; (ii) travel quotations from the travel agent could not be verified independently; and (iii) there was insufficient documentation in travel files.

9. A review of travel within the Mission area was not included in the scope of the audit.

## **IV. AUDIT FINDINGS AND RECOMMENDATIONS**

### **A. Improper calculation of travel related lump-sum payments**

#### Inadequate staff training on fare construction

10. Staff members can choose between having their ticket provided by the Organization or make their own arrangements by selecting the lump-sum option for home leave and family visit related travel. The amount of the lump-sum option is 75 per cent of the full economy class fare for international staff and 70 per cent for UNVs. Effective 13 August 2007, DFS delegated the authority for determining lump-sum travel entitlements to field missions. According to the guidelines prepared by the Travel and Traffic Service of Department of Management (TTS/DM), the following steps must be followed when determining lump-sum amounts:

- (i) Use the unrestricted carrier specific full economy fares, and in the event these fares are not published for specific markets, then use the least restrictive full economy level;
- (ii) In the absence of carrier specific fares of any kind, use published International Air Transport Association generic fares (YY); and
- (iii) When no published fares of any kind exist for a particular city pair, use point-to-point fare construction principles.

11. The guidelines did not make mention of any tools for determining lump-sum amounts. The Mission, therefore, referred to the services of a travel agency and requested three quotations from the agency, and most of the time, selected the least costly quotation as the basis for the lump-sum calculation. Eventually, the Mission was granted access to the Global Distribution System/Abacus (GDS- a worldwide computerized reservation network) through the travel agency. Although access to GDS was granted in January 2008, the Mission did not start using it until May 2008 as they did not have adequately trained staff in ticketing

---

and fare construction. In addition to Chief of the TTU, the only staff with some knowledge on ticketing was a UNV who temporarily joined the Unit in June 2008, almost one year after the delegation of authority.

12. The TTU did not identify and plan training needs of their staff, and they did not have any training budget. Before the delegation, DM alerted DFS (the then Department of Peacekeeping Operations) through a memorandum that the expertise to perform lump-sum calculations accurately and consistently may not be readily available at many peacekeeping missions, and DFS should, therefore, ensure that the application of lump-sum travel payment is supported by trained travel personnel. DFS conveyed the same message to peacekeeping missions, stressing that they would try to arrange training, if necessary, and when requested by missions. Following the delegation, the Mission did not request any training.

13. At the time of the audit, a video-teleconference training was being arranged on 'fare construction-phase one' by re-deployment of training funds from another cost centre.

#### **Recommendation 1**

**(1) The UNMIT Office of Mission Support should ensure that staff members in the Travel and Traffic Unit receive adequate training on fare construction and ticketing to ensure compliance with relevant guidelines.**

14. *The UNMIT Office of Mission Support accepted recommendation 1 and stated that training has already started with an online programme completed for all staff. Individual out of mission training was underway. First training was completed with the next staff member to attend in September 2009. Recommendation 1 remains open pending confirmation that adequate training has been provided to responsible TTU staff.*

#### Inconsistent practices in the determination of lump-sum amounts

15. In mid-2008, the Mission realized that the quotations provided by the travel agency were somehow different from GDS fares from the Abacus system. For example, the quotation used in one case was \$3,000 higher than the GDS fare. For lump-sum calculation purposes, the TTU had requested 'unrestricted full economy fares' from the travel agency; however, it was not clear how the agency prepared the quotations. When approached by the TTU, the travel agency representative stated that they were using the most economic GDS fares. During the audit, the TTU asked the opinion of an international fare construction specialist on the subject, and he stated that the agency was using itinerary pricing (actual booking) in preparing quotations. Because of technical limitations, (i.e. unavailability of past GDS fares in the system), OIOS was not able to compare agency quotations with GDS fares and therefore, could not conclude whether the Mission was paying higher or lower lump-sum amounts to staff members.

16. Although the TTU noticed that the travel agency's quotations differed from GDS fares, they continued using, albeit inconsistently, the travel agency

quotations until September 2008. In certain cases, lump-sum calculations through GDS fares resulted in lower amounts compared to travel agency quotations. OIOS noted few cases where staff members were paid additional amounts after complaining that the calculated amounts were much lower than their previous lump-sum payments. The audit noted other inconsistencies in the determination of lump-sum amounts. In some cases, past travel agency quotations and past GDS fares were used as the basis of calculations. In other cases and contrary to the general practice of using most economic fares as the basis of calculations, fares for the most direct routes were used. Some of these inconsistencies are illustrated in Table 2. The Mission informed OIOS that the cases brought to their attention are being reviewed.

**Table 2: Inconsistent practices in determining lump-sum payments**

Travel Auth. # / Date	Purpose of travel	Remarks
MIT-01213/ 19.6.2008	Home leave	First, three quotations received from the travel agency on 19.6.2008, and the least costly option selected as the basis of calculation. Later, additional amount of \$338 paid retroactively using an earlier quotation from the travel agency dated 5.2.2008.
MIT-01212/ 17.6.2008	Home leave	First, three quotations received from the travel agency on 19.6.2008, and the least costly option selected as the basis of calculation. Later, additional amount of \$338 paid retroactively using an old quotation from the travel agency dated 5.2.2008.
MIT-01239 - Amend.1/ 17.10.2008	Home leave	First, three quotations received from the travel agency on 6.6.2008 and the least costly option of \$4,518 selected. Later, another calculation using GDS on 5.5.2008 was \$5,148, and the difference of \$472 was retroactively paid to the staff member.
MIT-01285/ 10.7.2008	Family visit	Although the travel request was made on 3.7.2008, a fare per GDS on 28.4.2008 was used.
MIT-01307/ 17.7.2008	Home leave	Travel request was made on 10.7.2008; however, the travel agency quotation on 5.6.2008 was used.
MIT-01316/ 18.7.2008	Home leave	Travel request was made on 10 July 2008; however, the travel agency quotation on 7.1.2008 was used.
MIT-01400/ 18.7.2008	Home leave	Travel request was made on 1.8.2008; however, the travel agency quotation on 5.5.2008 was used.
MIT-00562/ 8.11.2007	Family visit	Two quotations received from the travel agency of \$5,285 and \$3,333. Higher costly option selected citing that this was the most direct route. No documentation on file showing the total travel time.
MIT-01386/ 4.8.2008	Home leave	Three quotations received from the travel agency. However, instead of selecting the least costly option of \$5,936, the highest costly option of \$6,217 was selected citing that this was the most direct route. No documentation on file showing the total travel time.

17. In one case, the Mission paid the staff member \$8,045 as the least costly quotation provided by the travel agency as of 24 June 2008. The TTU, having realized that the figure was much higher than the previous payments for the same destination, referred to the GDS and re-calculated the figure as \$5,973 based on the GDS fare of 25 August 2008 after the staff had completed the travel. Although there were other similar cases during the same period (e.g. travel authorizations 8-MIT-1256, 8-MIT-1270, 8-MIT-1271 and 8-MIT-1413), the Mission made a re-calculation only for this case.

---

18. The TTU started using GDS fares in May 2008, and exclusively from September 2008. However, the inconsistent practices mentioned above created a perception in the Mission that each travel request was processed differently, without any transparency to the process. Such practices also led to the misperception that lump-sum payments were subject to bargaining, which was evident by the high number of complaints forwarded to the TTU by the Personnel Section.

19. OIOS has not made a recommendation on inconsistent practices in lump-sum payments considering that the TTU has started using GDS fares in its calculations since May 2008. Also, as mentioned above, it was not possible to compare travel agency quotations with GDS fares because of unavailability of past fares.

### **Recommendation 2**

**(2) The UNMIT Office of Mission Support should educate staff, in information circulars, on the calculation of the lump-sum calculation process in order to promote transparency and address staff misperceptions.**

20. *The UNMIT Office of Mission Support accepted recommendation 2 and stated that Standard Operating Procedures (SOPs) are being developed and information will be disseminated to staff members once the SOPs are in place. Recommendation 2 remains open pending verification that SOPs are complete and disseminated to staff.*

### **A need for a clear set of rules on the calculation of lump-sum amounts**

21. The policy and procedures for exercising the lump-sum option for travel are set out in ST/AI/2006/4, and paragraph 10.2 of the Administrative Instruction requires that the full economy class fare by the 'least costly' scheduled air carrier be used for lump-sum calculations. To assist in determining lump-sum amounts, TTS/DM developed further guidelines. These guidelines state that 'most direct and economic route' must be selected for lump-sum calculations. However, the Mission was of the view that the most direct 'and' economic route is contradictory, not implementable, and it would be only by chance that a fare would be most direct and economical. The Mission, referring to the provisions of the Administrative Instruction, gave precedence to the requirement for "least costly" and most of the time selected "most economic" routes over "most direct" ones; however, exceptions were noted as shown in Table 2 above.

22. Another subject for the TTS' consideration was the definition of "origin of travel". The first step in the selection or construction of a fare in GDS is the determination of the origin of travel. Dili, East Timor, was not included in the GDS database; therefore, the Mission used Denpasar, Bali as the origin of travel. However, TTS/DM used Darwin, Australia or Singapore in their various calculations explaining that they arrived at lower costs by selecting routes originating from these locations. The Mission used Denpasar stating that more

---

direct flights were available there. The Mission should clarify the origin of travel for lump-sum calculations as it might have significant financial implications.

23. The Unit was not clear on definitions and applications of restrictions on fares. The guidelines required that unrestricted fares (least restrictive if no unrestricted fares are available) should be selected; however, they did not provide a definition of restrictions and/or prioritized or ranked restrictions. For example, in a fictitious test case (from Denpasar, Bali to Monrovia, Liberia), the TTU selected a GDS fare corresponding to \$7,437, whereas, TTS/DM selected a much higher fare of \$13,242. TTS/DM explained that the TTU selected fare included a restriction; hence, the less restrictive fare should have been selected instead. The TTU selected fare permitted only two transfers, one in each direction in Europe, while the TTS/DM selected fare permitted unlimited transfers.

24. There was also inconsistency between TTS/DM guidance and the DPKO Human Resources Handbook regarding ticket arrangements when a staff member chooses the ticket option over the lump-sum payment option. DPKO Human Resources Handbook states that the standard of accommodation on home leave travel for staff members will be economy class, without referring to any restriction on fares. However, the TTS/DM advised the TTU that the lowest possible applicable fare, including restricted and non-refundable excursions, should be obtained when a staff member requested a ticket. As of the audit date, there was no actual case in the Mission where a staff member selected the regular option of tickets.

25. The TTU started developing SOPs on travel services; however, they did not finalize them. SOPs can be used as tools for effective and efficient operations and to ensure compliance with relevant UN rules, policies and procedures. In OIOS' opinion, many of the deficiencies identified by this audit could be addressed by properly promulgated SOPs.

#### **Recommendations 3 and 4**

##### **The UNMIT Office of Mission Support should:**

**(3) Seek further guidance from the Department of Management, through the Department of Field Support, on the application of travel policy regarding: (a) most direct and economic routes; (b) origin of travel; and (c) application of restrictions on fares related to lump-sum calculations; and**

**(4) Ensure that the Travel and Traffic Unit finalizes standard operating procedures on travel to bring clarity, consistency and standardization to travel services and to ensure compliance with UN regulations and rules.**

26. *The UNMIT Office of Mission Support accepted recommendation 3 and a fax requesting clarification on the issues referred to in the recommendation was addressed to DFS and copied to DM. Recommendation 3 remains open pending*

---

OIOS' verification that adequate guidance and further clarification has been received from DFS.

27. *The UNMIT Office of Mission Support accepted recommendation 4 and stated that SOPs are being prepared to clearly define the procedures. Recommendation 4 remains open pending receipt of a copy of the final SOPs.*

#### Inadequate documentation in travel files

28. Paragraph 4 of the memorandum on the delegation of authority for lump-sum calculations requires missions to document and file all calculations for monitoring purposes. However, the memorandum did not clearly specify what kind of supporting documents were required. Most of the time, the TTU attached a copy of the quotation from the travel agent or GDS print out in travel files, but these were not sufficient for OIOS to be able to determine whether the calculations were made in accordance with the rules and guidelines. For example, the TTU printed only the main pages of GDS fares which did not display all the restrictions, although restrictions on fares was one of the criteria in fare selection. The details of fares should have been retrieved and printed and filed to see the restrictions. As mentioned above, a fare quotation could not be checked retroactively using the GDS system, therefore it is critical to document and file all relevant information. There is a risk that lump-sum calculations may be manipulated in the absence of a transparent and fully documented process.

#### **Recommendation 5**

**(5) The UNMIT Office of Mission Support should fully document each step in the travel related lump-sum calculation process and properly file the documentation.**

29. *The UNMIT Office of Mission Support accepted recommendation 5 and stated that a checklist of the documents to be filed is being prepared. Recommendation 5 remains open pending receipt of a copy of the checklist of the documents to be filed.*

#### **B. Lack of travel services contract**

30. As at the time of the audit, there was no contract in place for travel services. The Mission has been using UNDP's contracted travel agent in Jakarta since its inception in 2006. The lack of effective communication and coordination between the TTU and the Procurement Section, coupled with disagreements on some procurement principles and practices, prevented the Mission from conducting a competitive bidding exercise and establishing a contract.

31. The audit also found that the Mission was not benefiting from any discounts on air tickets. As per the Chief of the TTU, corporate client agreements with major airlines in the region offer 5 to 15 per cent discounts on tickets. The Mission should try to take advantage of such discounts from major airlines to significantly save on ticket expenditures.

---

### **Recommendation 6**

**(6) The UNMIT Office of Mission Support should conduct a competitive bidding exercise for travel services, establish a written contract and try to obtain corporate discounts from the major airlines in the region.**

32. *The UNMIT Office of Mission Support accepted recommendation 6 and stated that a Statement of Requirements is being prepared and that negotiations will be entered into to obtain discounts from the major airlines. Recommendation 6 remains open pending OIOS' verification that travel services have been sourced competitively.*

### **C. Unutilized systems contract for shipments**

33. The TTU is responsible for the shipment of personal effects of staff members and military/police officers. The audit found that despite the existence of a global UN systems contract for shipment services, the local agent was charging higher prices. A comparison of the local agent's prices with the prices established in the systems contract showed that there is a potential savings of approximately \$250,000 (40 per cent of the total expenditures, which was \$660,000 in 2008-2009 financial year) annually if the system contract is used.

### **Recommendation 7**

**(7) The UNMIT Office of Mission Support should immediately start using the existing systems contract for shipment services.**

34. *The UNMIT Office of Mission Support accepted recommendation 7 and stated that the contractor has been notified of the intention of UNMIT to use the systems contract. Recommendation 7 remains open pending receipt of evidence that the Mission has started using the systems contract for shipment services.*

## **V. ACKNOWLEDGEMENT**

35. We wish to express our appreciation to the Management and staff of UNMIT for the assistance and cooperation extended to the auditors during this assignment.

## STATUS OF AUDIT RECOMMENDATIONS

Recom. no.	Recommendation	Risk category	Risk rating	C/O <sup>1</sup>	Actions needed to close recommendation	Implementation date <sup>2</sup>
1	The Office of Mission Support should ensure that staff in the Travel and Traffic Unit receive adequate training on fare construction and ticketing so that the Unit can select and construct fares in compliance with relevant guidelines.	Human resources	High	0	Confirmation that responsible TTU staff have attended the training.	31 December 2009
2	The UNMIT Office of Mission Support should educate staff, in information circulars, on the calculation of lump-sum calculation process in order to promote transparency and address staff misperceptions.	Operational	Medium	0	Copy of the SOPs disseminated to staff.	30 September 2009
3	The UNMIT Office of Mission Support should seek further guidance from the Department of Field Management, through the Department of Field Support, on the application of travel policy regarding: (a) most direct and economic routes; (b) origin of travel; and (c) application of restrictions on fares related to lump-sum calculations.	Operational	High	0	Confirmation that further guidance and clarification has been provided to UNMIT from DFS.	31 July 2009
4	The UNMIT Office of Mission Support should ensure that the Travel and Traffic Unit finalizes standard operating procedures on travel to bring clarity, consistency and standardization to travel services and to ensure compliance with UN regulations and rules.	Operational	Medium	0	Copy of SOPs	30 September 2009
5	The Office of Mission Support should fully document each step in the travel related lump-sum calculation process and properly file the documentation.	Operational	High	0	Copy of the checklist of file documentation	31 July 2009
6	The Office of Mission Support should conduct a competitive bidding exercise for travel services, establish a written contract and try to obtain corporate discounts from the major airlines in the region.	Operational	Medium	0	Verification that travel services are sourced competitively.	31 December 2009
7	The Office of Mission Support should	Operational	High	0	Receipt of the notification sent to contractor by	31 July 2009

Recom. no.	Recommendation	Risk category	Risk rating	C/O <sup>1</sup>	Actions needed to close recommendation	Implementation date <sup>2</sup>
	immediately start using the existing systems contract for shipment services.				the TTU.	

1. C = closed, O = open
2. Date provided by UNMIT in response to recommendations.