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**SIXTY-FIRST WORLD HEALTH ASSEMBLY
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Report of the External Auditor to the Health Assembly

The Director-General has the honour to transmit to the Sixty-first World Health Assembly the report of the External Auditor on the financial operations of the World Health Organization for the financial period 2006–2007 (at Annex)

ANNEX

REPORT OF THE EXTERNAL AUDITOR TO THE HEALTH ASSEMBLY ON THE FINANCIAL OPERATIONS OF THE WORLD HEALTH ORGANIZATION FOR THE FINANCIAL PERIOD 1 JANUARY 2006 TO 31 DECEMBER 2007

1. The audit of the World Health Organization (WHO) was assigned to the Comptroller and Auditor-General of India for the financial periods 2004–2005 and 2006–2007, in terms of resolution WHA56.8 of the Fifty-sixth World Health Assembly. This mandate has been extended by the Sixtieth World Health Assembly to the financial periods 2008–2009 and 2010–2011.
2. During the financial period 2006–2007, audits were conducted at all regional offices of the Organization, in addition to selected country offices in each region. The Interim Report, containing the results of the audits performed in the first year of the financial period and covering the Regional Office for Africa (AFRO), the Regional Office for the Western Pacific (WPRO) and selected country offices as well as a management review of WHO's operations under the United Nations Development Group Iraq Trust Fund, was transmitted to the Sixtieth World Health Assembly in document A60/31. In the second year of the financial period, audit teams carried out audits at the Regional Office for South-East Asia (SEARO), the Regional Office for Europe (EURO) and the Regional Office for the Eastern Mediterranean (EMRO) along with selected country offices in each region.
3. In addition to the audits mentioned above, two in-depth reviews were also conducted at the headquarters of the Organization. In accordance with the commitment in the Interim Report on the financial period 2004–2005, a follow-up review of the functioning of the Contracting and Procurement Services unit at headquarters was undertaken. In addition, the contractual and operational aspects of the ongoing implementation of the global management system (GSM) project were reviewed. The findings arising from all the audits were conveyed to the relevant managements through Management Letters and discussed with them. Their responses have been taken into consideration in framing this report.
4. The scope of the audits was in accordance with Regulation XIV of the Financial Regulations and the Additional Terms of Reference governing the External Audit appended thereto. In accordance with these terms of reference, the auditor shall express an opinion on the financial statements for the financial period and report on the financial operations and various other matters set out therein.
5. The audits were conducted in accordance with the Common Auditing Standards of the Panel of External Auditors of the United Nations, the specialized agencies, and the International Atomic Energy Agency. The audits focused on financial, compliance and value-added aspects.
6. Audit of the financial statements for the financial period 2006–2007 revealed no weaknesses or errors which I considered material to the accuracy, completeness and validity of the financial statements as a whole and I have placed an unqualified audit opinion on the Organization's financial statements for the financial period ended 31 December 2007.
7. As in the past, the professional relationship with the Secretariat continues to be constructive and I have received all possible cooperation in carrying out my responsibilities. Regular coordination with the Internal Oversight Services has contributed to optimizing audit efforts and avoiding duplication. Reliance has been placed on the work performed by internal audit to the extent necessary for the external audit objectives.

8. In compliance with the direction of the Programme, Budget and Administration Committee this report contains a schedule detailing the status of implementation of significant recommendations made by the External Auditor.

FINANCIAL MATTERS

9. The significant increase of 43% in income for the programme activities of the Organization was partly attributable to the change in income recognition policy which recognized income in the financial period on an accrual basis, i.e. on signature of donor agreements. The growth in funding is welcome. The overall financial implementation has registered a fall from 97% in 2004–2005 to 84% in 2006–2007, though the implementation rate for the regular budget continued to be at the highest rate achievable, at 98%. The fall in the rate of implementation is, like that of income, partly due to the change in the expenditure recognition policy which recorded expenditure on the delivery principle, i.e. when goods and services were actually delivered and not on commitments.

10. The position of outstanding assessed contributions changed very little from the previous biennium, with 5% of contributions remaining unpaid and the total arrears standing at US\$ 140 million on 31 December 2007. However, total borrowings were marginally lower at US\$ 32.8 million, compared to US\$ 44.03 million in 2004–2005.

11. Voluntary contributions continued to maintain a high rate of growth, accounting for 79 % (71% in 2004–2005) of the total income. In the Report of the External Auditor to the Fifty-ninth World Health Assembly attention was drawn to the increasing level of extrabudgetary funding and the increasing costs of supporting extrabudgetary activities. In this context it is encouraging to note the measures being initiated by Management to address the financing gap for management and administrative functions, viz., targeting use of programme support costs income to cover only fixed indirect management and administration costs, financing indirect variable costs from a common support charge across all funds and offices, and a more realistic assessment of the cost of hosting partnerships.

Result-based budgeting

12. An authorization was given to WHO Representatives (WRs) in SEARO in April 2006 to create new activities/approve programme changes to move allotted funds within an Area of Work with the objective of achieving the products and Office-specific expected results (OSERs). This means that workplans had to be prepared based on the OSERs, and that in exceptional cases these changes might be carried out. An analysis of the changes proposed showed that during the biennium WR Bangladesh had re-planned the activities leading to 249 new activities and 83 budget changes. WR Myanmar's re-planning involved 242 new activities and 36 budget changes, and in respect of WR Maldives the numbers were 91 new activities and 145 budget changes. This is indicative of inadequate need assessment in preparing country plans. The Regional Office stated that since as per the 2008–2009 business rules, minor changes at the activity level were no longer needed, as long as there was no change in the product amount, the number of these small changes would be reduced.

13. In EMRO, Management informed audit that all programme change requests were received through e-mails or by pouch and monitored at country level through the Country Activity Management System (CAMS) and the Regional Activity Management System (RAMS) and expeditiously processed. However, data about number received, approved, pending and turned down were not maintained. Also, the money value of each of these categories could not be generated due to lack of features in the Regional Office Administration Finance Information system. Audit worked out the

programme change requests for Regular budget, approved in terms of the original budget, from the data from the EMRO Consolidated Budget Monitoring Sheets, furnished by Management. In respect of nine WRs the programme change requests approved by the Regional Office led to a change in the Working Budget of the WRs of more than 20%. It ranged from 20.6 % in the case of WR Oman to 63.29 % in the case of WR Sudan. As the current system of receiving, recording and processing Programme Change Requests does not provide any data on the number of requests received, turned down and pending, internal control is weakened.

14. Management stated in reply that it was not possible to work out the percentage change, as the system captured all the increases and decreases at product level of any budget change request. Therefore, when all budget change requests were captured, many double counts would occur. Further, the system was not able to automatically furnish the real amount of change of working budget for each product compared to its original planned figure.

15. I *recommend* that more effective controls may be exercised in preparing and processing country plans, to obviate the need for a very large number of programme change requests. Management has accepted the recommendation.

Negative balances and unliquidated obligations

16. The WHO Manual provides that obligations raised on an allotment should not exceed the amount available in it. Audit had recommended to EMRO in December 2004, after the previous audit, that expenditure should be carefully monitored in order to ensure that obligations raised were within the available allotments. Management had subsequently assured that obligations were being raised within the available allotments. However, the audit revealed that significant red balances had again arisen in EMRO, EURO and SEARO. In SEARO, the ROAFI¹ has since been modified in response to audit, to block establishment of obligations in excess of funds available. EMRO management has given assurance that steps were taken to ensure that red balances did not occur. The emphasis needs to be more on preventive measures, so that the Manual's provisions are adhered to, rather than clearing such items subsequently.

17. Unliquidated obligations (ULOs) represent liabilities of the Organization which have not been discharged. It was seen that in SEARO, 201 cases pertained to 2004–2005. Some of them in fact were created prior to 2004–2005. The individual value of 137 cases was less than US\$ 10. Further, 5794 cases related to Regular budget obligations. Audit also could not find any record of a systemic review of ULO balances as stipulated in the Manual. There were similar cases of a significant quantum of ULOs in EMRO. SEARO management accepted the audit observation and stated that 137 cases of US\$ 10 or less had since been reviewed and de-obligated. Management of EMRO had assured audit that all obligations relating to 2004–2005 would be cancelled by the end of 2007.

POLICY MATTERS

18. The Report of the External Auditor on the financial period 2004–2005 had mentioned that the Secretariat had been working on putting in place a comprehensive framework of delegation of authority. The framework remains to be formalized. There is now an increased delegation of authority

¹ ROAFI: Regional Office Administration Finance Information system.

to WRs in respect of emergencies. Discussions on further delegations are ongoing. The planned comprehensive ethics policy for the Organization also remains to be formalized and disseminated. The Secretariat is encouraged to complete these important pieces of policy framing at the earliest possible date. I am pleased to note that the environment policy has been put in place. The planned revision of the WHO Manual has been postponed for the time being and is scheduled to be taken up once the Global Management System goes on stream and the related Users' Productivity Kit is finalized.

PROCUREMENTS

Follow-up review on contracting and procurement services at headquarters

19. A follow-up audit was undertaken on the earlier review conducted during the last biennium on the Contracting and Procurement Services Unit (CPS) at headquarters. The audit reviewed the internal controls and procedures in CPS and ascertained whether these, including recently adopted processing systems, were transparent and in consonance with the WHO Manual. The audit methodology included selection of sample transactions, covering normal, urgent and emergency cases, for audit review. The audit covered the period from January 2006 to August 2007. The audit findings, recommendations and the Secretariat's responses are discussed in the subsequent paragraphs.

20. CPS procures against requisitions from the regional offices, as well as for headquarters. The technical units (headquarters/regional offices) send purchase authorizations (PAs) to CPS to procure supplies and equipment, after obtaining appropriate approvals. The PA gives the estimated cost of the goods to be procured. From June 2006, PAs were being issued through the "WebBuy" system, which has a catalogue of products with details of specification and pricing

21. CPS thereafter processes the authorizations and calls for quotations/bids, prepares adjudication reports, make submissions to the Contract Review Committee (CRC) for high-value PAs (more than US\$ 150 000) and awards orders through the issue of Purchase Orders (POs) to the suppliers. The PO, together with the supplier's acknowledgment, constitutes a legal contract. The insurance and shipping of the goods to consignees is monitored by the shipping and logistics support unit. Invoices for goods, insurance and shipping are scrutinized by CPS and passed to Finance for payment. During the period January 2006 to August 2007, 9213 purchase orders amounting to US\$ 223 406 872 were issued by CPS.

Insurance management

22. The WHO Manual provides that all insurance contracts are to be concluded on a competitive basis to the maximum extent practical, except for extensions and reviews of existing contracts, which may be renegotiated directly with the same insurers. Written quotations from qualified sources should normally be obtained from as many different countries as are considered necessary to ensure full and free international competition, either directly from insurance companies or through a broker.

23. During 2006, the total amount of insurance premium paid by CPS to the insurer was US\$ 629 794.30. The current agreement in place for five years from 1 January 2006 to 1 January 2011 was stated to have been arrived at after negotiation of the previous agreement. The agreement could be reviewed after every year. The value of the current 5-year insurance agreement is approximately US\$ 3 million.

24. It was seen in audit that the current agreement was renewed without any competitive bidding. There was no evaluation on record to establish that the new negotiated rates were competitive. The WHO Manual specifies that all insurance contracts should be concluded on a competitive basis to the maximum extent practical. The Organization's insurance agreements have continued with basically the same company from 1990 to date, and the current one is to continue until 2011. While the Manual does envisage a scenario where renewal of such service agreements is permitted, clearly the spirit of the provisions does not encourage an agreement to be continually renewed for four terms and a period of 21 years with the same company, without going in for competitive bidding.
25. I *recommend* that CPS may evolve a system which ensures that long-term service agreements are not renewed repeatedly and routinely without ensuring competitive bidding. The desirability of continuing with the current agreement may also be reviewed.
26. Where an existing contract is being reviewed and new conditions negotiated with the existing insurer, proposals for modifications have to be submitted to, and endorsed by, the Insurance Committee. As new conditions were negotiated with the insurer in the current agreement, compared with the earlier agreement, the requirement of routing the agreement through the Insurance Committee should have been complied with. This remained to be done.
27. I *recommend* that whenever new conditions are to be incorporated in the agreement with the insurer, the agreement may be routed through the Insurance Committee.

Freight management

28. The WHO Manual stipulates a sealed bid tendering process for all procurement estimated to exceed the value of US\$ 150 000. It was seen in audit that in all cases where the freight charge was in excess of US\$ 150 000, a sealed bid tendering process was not adopted. Management confirmed that sealed tendering for freight purposes did not take place and that the normal practice was to ask for three quotations for freight charges.
29. I *recommend* that the provisions of the WHO Manual relating to payment for services above US\$ 150 000 by calling for sealed bids be strictly adhered to. Management has accepted the recommendation.
30. WHO has a discount agreement with a company for goods below 500 kg. During the period from January 2006 to August 2007, the company transported goods valued¹ at around US\$ 53 729 928 and was paid around US\$ 4.5 million. It was seen in audit that this high value contract has been operative for the last 15 years without a written agreement and without adhering to competitive bidding at any stage, in violation of the WHO Manual's provisions. Management stated that the price list for freight charges up to 500 kg was reviewed quarterly, and CPS had been making spot price checks. However, it was confirmed by CPS that spot checks as such were not documented officially on record. It was stated that a tender for forwarders and freight was envisaged in the first quarter of 2008 with the establishment of the global service centre in Kuala Lumpur and a long-term agreement would be established. I emphasize here that the entire process needs to be more transparent and competition should be encouraged.

¹ The estimated value of goods transported by Muller and Partner was not available in the AFI system previously being used. Hence estimated values of goods during the audit period January 2006 to May 2006 have not been included here. Further, as certain transitions continued in the AFI system even after May 2006, they have also been excluded.

Procurement of vaccines

31. During the period from January 2006 to August 2007, CPS made 422 procurements of different vaccines at a total cost of US\$ 6 579 007 (excluding freight and insurance), which amounted to 3.07 per cent of the total procurements made during the relevant period. It was seen in audit that even though the “Guidelines for international procurement of vaccine and sera” envisaged preparation of a forecast of requirement to prevent stock-out positions, CPS has not put in place any system for obtaining a forecast of requirements from various routine requisitioners so as to plan and place orders well in time to avoid difficulties in sourcing vaccines. A regular forecast of requirement could have avoided the difficulties experienced by CPS in procuring the required quantum and ensuring timeliness of delivery, as seen in the cases test-checked in audit.

32. I *recommend* that efforts should be made to prepare a forecast of requirements in consultation with the regional and country offices to safeguard against stock-out positions. Management has accepted the recommendation.

33. Guidelines for international procurement of vaccine and sera published by WHO in 1998 state that to ensure quality as well as reliability and availability of vaccines, it is imperative to purchase vaccines only from prequalified sources. Further, a joint study by WHO and UNICEF had adjudged seasonal influenza vaccines as a high-priority vaccine. It was seen in audit that CPS had not prequalified any manufacturer for the seasonal influenza vaccines. During the period January 2006 to August 2007, CPS had procured seasonal influenza vaccines at a total cost of US\$ 253 217 (29 POs) from non-prequalified manufacturers. Hepatitis A and A+ B vaccines were procured at a total cost of US\$ 108 678 and rabies vaccines at a total cost of US\$ 230 222 from single non-prequalified manufacturers, as there were no other prequalified manufacturers.

34. CPS stated that they were working closely with the technical units concerned to ensure an adequate number of prequalified manufacturers. However, the process was lengthy and in principle based on disease prevalence and coverage, global volume of procurement and manufacturers’ ability. Management’s efforts are encouraged in this important area.

35. CPS did not adhere to the provisions of the Manual relating to calling for quotations and sealed bids in several vaccine procurements, such as for yellow fever vaccine. CPS stated that vaccine procurement was made based on annual price lists furnished by the manufacturers, depending on availability. It was seen in audit that one of the prequalified manufacturers, with whom four orders were placed during 2007, had offered the lowest rate amongst the three manufacturers and had honoured all the orders placed with it. However, there was no evidence available or written clarification on record that this manufacturer was contacted on all the other 14 occasions when procurements were made from two other manufacturers offering the vaccines at a higher price. CPS also did not prepare an adjudication report justifying procurement without obtaining quotations from all the three prequalified manufacturers.

36. For procurement of hepatitis B vaccines, though nine manufacturers had been prequalified by WHO, CPS placed all their orders with a single manufacturer without calling for quotations from other prequalified manufacturers. CPS stated that prequalification did not mean automatic availability and several manufacturers hesitated to supply small quantities. In this regard it is observed that no attempt was formally made to ascertain the price and availability from any of the prequalified manufacturers before placing the orders with a single manufacturer.

37. I *recommend* that the Manual's provision on three quotations/sealed bids should be strictly followed and all prequalified manufacturers concerned should be formally approached. Management has accepted the recommendation.

Limits for sealed quotations

38. Chapter VI of the WHO Manual relating to Procurement was revised in February 2007. The limit for calling for sealed quotations was revised from US\$ 70 000 and above to US\$ 150 000 and above. During the period from January 2006 to 31 August 2007, this change has impacted 218 POs (2.37 per cent of the procurement cases) at headquarters, covering an amount of US\$ 21 796 635 (9.76 per cent of the total amount). Thus, 9.76 per cent of the amount related to procurements had moved out of the ambit of the procedure for sealed bid tendering and were decided through the procedure of quotations. As the number of such POs was only 218 whereas the amount involved was large (US\$ 21 796 635), there is a need to review the safeguards.

39. The revised Manual indicates that for all procurements above US\$ 15 000 and below US\$ 150 000, quotations may be invited by e-mail or facsimile instead of by post. No one should have access to the rates quoted before a prenotified date and providers should not be allowed access to information on a particular acquisition before such information is made available to the business community at large, as stipulated in the Manual. It was seen in audit that in respect of many POs, the e-mail requests to bidders were being made on different dates and the quotations were also being received from the bidders on different dates. This in effect means that the rates of a provider bidding earlier are readily available in the system and consequently there is a control risk of received bids (by e-mail) being impacted by such availability of information.

40. I *recommend* that e-mail quotations received from the providers may be locked in a specific secure WHO e-mail account so that they are opened only on a particular prenotified date. Management has accepted the recommendation.

Processing time for purchase orders

41. It was observed that no indicative time frame has been fixed for the various stages involved in the procurement process from the stage of receipt of the request to the stage of final delivery/acknowledgement of goods. CPS does not have a benchmarked mechanism to monitor the time taken in the various stages, except for capturing the dates of receipt of purchase authorization and the dates of issue of purchase order. Fixing time norms for the procurement process on the basis of broad categories of procurement and on the basis of the degree of urgency of requirement (normal, urgent, emergency) would aid in further streamlining the processing time at CPS.

42. I *recommend* that time frames for the different stages in the procurement process may be benchmarked on the basis of the nature and urgency of the requirement. Based on such time frames, a periodical report may be evolved in order to ensure effective monitoring. Accepting the recommendations, CPS stated that all this information would be captured in future and regularly monitored by procurement officers in CPS and the global service centre. Additionally, service-level agreements would be established detailing time frames for processing and the roles and responsibilities of those involved in the process.

System of three valid quotations

43. As per the WHO Manual, all procurement for goods, works and services is on a competitive basis to the maximum extent practical, including solicitation of at least three written quotations from all such qualified sources as are deemed necessary to ensure full and free competition consistent with the types of goods and services necessary to meet the requirements of the Organization. It was observed that in a significant number of cases either three quotations were not requested or three valid quotations were not available for comparison, as one or more of the offers received did not meet the required specification or quality standards. Similar cases of non-receipt of three valid bids were noticed even in high-value procurements wherein the procedure for sealed bid (for US\$ 150 000 and above) was required to be followed. This points to the fact that the number of vendors in the vendor database was either insufficient or the suitable vendors already in the database were not approached to quote. In the absence of three valid quotations/bids for the sake of comparison, full and free competition, consistent with the services necessary to meet the requirements of the Organization, cannot be ensured.

44. The WHO Manual envisages adherence to formal methods of solicitation while calling for quotations. A formal method would necessarily mean simultaneous solicitation of quotations with sufficient information and fixing of a last date for receipt of offers. CPS has been calling for quotations through e-mails without specifying any last date for receipt of offers. In many cases, the initial solicitation did not include calling for information on packing, volume, weight etc. Such open-ended solicitation, without any standardized format and specified date for submission of offer, creates delays in obtaining accurate information on the product and leads to consequent delays in the procurement process.

45. I *recommend* that the spirit of the provisions of the WHO Manual relating to obtaining three quotations/bids for procurement of goods as well as services such as freight may be adhered to by ensuring that at least three valid quotations are available for comparison. I also recommend that CPS may adopt formal methods of solicitation through a standardized format while obtaining quotations through e-mails. Accepting the recommendation, CPS stated that getting three valid quotations might be beyond the control of CPS. To address this factor an adequate number of suppliers can be invited to bid.

Sole sources of supply

46. All procurement for goods and services is to be made on a competitive basis to the maximum extent practical unless there is only one source of supply or it is impracticable to invite competition. It was seen that a significant number of POs test-checked in audit were characterized as either sole source or "recommended" and the process of inviting three valid quotations from suppliers was not carried out. It was also seen that in most cases, no justification or details for characterizing a vendor or product as sole source or for "recommending" or for standardization was recorded on file in a systematic manner. There is a need for transparency as regards the absolute necessity for sole-source procurement, despite the fact that it denies WHO the advantage of competitive bidding. The presence of a certificate by the requisitioner/procurement officer would ensure that the practice of not going for the prescribed purchase procedure is fully justified and is transparent. CPS stated that a written confirmation from the technical unit or requisitioner was considered as formal certification. It is emphasized that a certificate connotes taking responsibility, is more acceptable legally and cannot really supplant a confirmation.

47. I *recommend* that the reason for procurement from a sole source or a recommended supplier be formally justified in a certificate with a prescribed format. CPS accepted the recommendation and stated that it would ensure (a) that the Procurement Manual correctly reflected the requirements for requisitioners and explanations on differences between “sole source” and “recommended”, and (b) that the GSM purchase orders justification codes correctly reflected these provisions.

Low-value purchase orders and local procurements

48. In the External Audit Report for the biennium 2004–2005 it was recommended that CPS review the issue of the high proportion of low-value purchase orders, in consultation with regional offices, so as to ensure an appropriate balance in the value of purchase authorizations being placed on them at headquarters. The Secretariat, while agreeing to the recommendation, indicated (paragraph 45) that it would work with the regional offices to increase the volume of low-value items to be procured directly by them.

49. It was observed that 35 per cent (previous biennium 33 per cent) of the orders placed by CPS were below US\$ 1 000 and 67 per cent (previous biennium 69 per cent) of orders were below US\$ 5 000. The value of the orders below US\$ 5 000 amounted to 3.71 per cent (previous biennium 6.43 per cent) of the total value of procurements made during this period. Thus a high proportion of low-value orders has continued to prevail. It was also seen that in 535 cases¹ of procurement (27.69 per cent of the total POs below US\$ 1 000), the freight charge exceeded the cost of procurement itself. One of the main reasons for this was the fact that many small-value items of procurement were sourced from Europe and shipped to Africa and Asia, adding to the high costs. The high cost involved in freight due to this intercontinental movement of goods underscores the need to curtail small procurements by encouraging the regional offices concerned to identify providers closer to them.

50. I *recommend* that regional offices be requested to review their purchase authorizations and procurement policy with a view to increasing local procurements, particularly of low-value items. Regional offices should be encouraged to identify providers closer to them. Accepting the recommendations, CPS stated that with the deployment of the GSM and the global service centre, all orders for countries, regions and headquarters would be processed in the global service centre, thus rationalizing the use of resources throughout the Organization.

Supplier performance

51. It was seen that there were no specific written guidelines for regular review of vendors' lists. Normally, common products are reviewed every five years to update the records. However, discussions with CPS confirmed that the WHO vendor lists had last been reviewed during the transition from the AFI system to WebBuy in 2005 and would again be reviewed in the transition from WebBuy to GSM.

52. As to the background and other details for assessment of new suppliers who were invited to tender, CPS stated that there was no system for recording such information. CPS also stated that presently it did not have a supplier performance evaluation system but that the GSM would be able to monitor a number of parameters on which vendor performance would be based. However, our

¹ Excluding the zero-value POs and POs clubbed for shipping purposes.

discussions with the GSM project team suggested that only the dates of supply by vendors would be monitored, and no other report for monitoring quality aspects of vendor performance would be put in place.

53. Further, it was seen in audit that CPS did not have a “blacklisting process” and suppliers were either “active” or “de-active”. During the current biennium, CPS has not “de-activated” any vendor in the system. The absence of a systematic and regular vendor performance evaluation in effect discourages greater choice, better institutional memory and enhanced competition in the entire procurement process.

54. I *recommend* that the vendors listed in the existing database may be updated and reviewed annually, and a vendor performance evaluation checklist may be introduced, taking into account quality, timeliness and other required parameters. Management has accepted the recommendation.

Plans for the future

55. In response to the review CPS stated that the findings of audit should be viewed in the context that during the last few years the GMG cluster, of which CPS is a part, has undergone a major restructuring which has resulted in a number of activities which were previously decentralized under several departments being regrouped under one. This was done in the context of the Strategic Direction and Competency Review undertaken by the Organization with a view to streamlining processes and procedures and rationalizing the use of core competencies and resources. With the global roll-out of the global management system and the establishment of an offshore global service centre, many “back office” processes in procurement would change in 2008. For this reason a number of upgrades or changes of process, which were envisaged by CPS in the existing legacy procurement system (WebBuy), were held in abeyance pending the implementation of the GSM.

56. CPS was also actively reviewing new ways of offering services on a global scale including the outsourcing of certain activities which were being undertaken by the shipping sub-unit of CPS. It was planned that in 2008 a global tender would be launched for shipping and forwarding activities and various insurance policies, in order to re-actualize these and give them a corporate focus. It was envisaged that efficiency, savings and economies of scale would be achieved in this way. While appreciating the complexities faced by CPS in the past, I encourage Management in its efforts to streamline their activities.

57. The above recommendations relating to contracting and procurement services at headquarters are accorded high priority. Management has accepted the recommendations.

Conclusion

58. The audit review brings out potential risk areas of management, viz., insurance, freight, vaccine procurement and handling of quotations and bids, among others. There is also a need for greater transparency and encouraging more competition. Management has agreed to the audit recommendations and plans to introduce tighter safeguards in these areas, principally taking advantage of the GSM, once commissioned. This should impact positively by increasing efficiency and reducing risks in the procurement process.

PROCUREMENT IN THE FIELD

59. The WHO Manual stipulates that the Regional Director is authorized to approve local procurement for amounts up to US\$ 100 000. For cases of local procurement exceeding US\$ 100 000 authorization should be requested from headquarters. It was, however, seen that in EURO procurements with money value exceeding US\$ 100 000 have been made locally in a number of cases without obtaining the necessary clearance from headquarters.

60. I *recommend* that the procedure stipulated in the Manual regarding local procurements having money value exceeding US\$ 100 000 should be adhered to. Management has accepted the recommendation.

61. Significant gaps in records were seen in audit in a number of procurement files, affecting transparency and independent verification. Management stated that the filing system would be reviewed and strengthened. In a number of cases dealt with by the Contract Review Committee, it was seen in audit that advance payments were made without approval of CRC. In cases where there are fewer than three bids, there should be an adjudication report justifying the selection of the single bidder. However, it was seen that cases with fewer than three bids were finalized without adjudication reports. Management has given assurances that corrective steps would be taken in these areas.

Property Survey Committee (PSC)

62. Audit of PSC cases for the biennium 2006–2007 in SEARO showed that there was no system in place to record the current position of the cases referred to PSC; the record only indicated the mode of disposal proposed to PSC and the decision made. Subsequent actions were not being recorded. The proposals received were often incomplete and did not contain particulars such as inventory item number, reference to inventory records, and value. In a few cases, inventory lists with items marked out therein were attached to the proposal, instead of the particulars in the proposal itself. Others contained discrepancies in the reference to the inventory records. There was delay in taking action by the office concerned to comply with PSC decisions, and inventory records were not updated following PSC decisions. Management stated that deviations from PSC decisions would not be allowed and updating of inventory records had since been carried out subsequent to audit.

INSURANCE

63. The WHO Manual provides that buildings owned by the Organization and buildings not owned but for whose safety and maintenance the Organization is responsible have to be insured by the regional or other offices concerned against the risks of fire and water damage and against such additional risks as local circumstances warrant (e.g. earthquakes, avalanches, etc.). The insured value of the buildings must be fixed at the current replacement value and must therefore periodically (usually once a year) be adjusted to the current cost of construction by reference to an appropriately established index of increases in building costs. It was seen in audit that in SEARO the insured value was not being fixed at the current replacement value and reviewed periodically. Management has given assurances that replacement costs would be verified by an independent body in the course of the biennial verification.

STAFF HEALTH INSURANCE

64. Staff Health Insurance Rules specify that prior approval of the Headquarters Surveillance Committee must be sought in cases of major surgery estimated to cost US\$ 40 000 or more and in cases where total medical costs are likely to reach US\$ 30 000. It is also specified in the rules that apart from emergency cases, failure to obtain the prior approval of the Headquarters Surveillance Committee would result in reimbursement being limited to US\$ 40 000 or US\$ 30 000 only, depending on the nature of the case. Prior approval is necessary both for headquarters and for regional offices. It was seen in audit that at headquarters the prior approval of the Headquarters Surveillance Committee was not obtained, full reimbursement was allowed and only a six-monthly report was generated and furnished to the Headquarters Surveillance Committee for information and post facto approval. This practice violates the provision calling for mandatory prior approval by the Headquarters Surveillance Committee. Management stated that the cases were submitted to the Committee post facto due to emergency situations. Modifying this Rule was not envisaged but formal confirmation by the Headquarters Surveillance Committee could be obtained to validate this practice. In the context of the current practice the relevant rules need to be reviewed with reference to emergency situations.

65. Due to errors committed in processing claims, reimbursements had sometimes been made to the wrong beneficiaries. When the fact was brought to the notice of the section either by the recipient or the original claimant, the amount paid was termed an advance and attempts were made to recover it or adjust it against subsequent claims proffered by the recipient. In some cases where recovery was not possible, the advances were written off as unrecoverable. On its being pointed out by audit the practice of treating erroneous reimbursements as advances has since been stopped.

66. The reimbursement claim has to be proffered by the staff member in the currency in which the expenditure was incurred and WHO reimburses the staff member in the same currency. It was seen in audit that a number of claims which had been passed were subsequently cancelled. As per the data given to audit, 323 cases involving US\$ 1.1 million were cancelled and reprocessed for a second time. It was explained to Audit that one of the main reasons for cancellation of the paid claims was that the claims were processed in Swiss francs though they had been submitted in euros or US dollars by the staff member concerned. The claims were revised when the beneficiary brought it to the notice of the section that the claim was underpaid, having been processed in a currency other than the one in which it was due. Management stated, inter alia, that this type of human error, for instance recording an incorrect currency, could not be detected by the Health Insurance Information System (HIIS) and the majority of errors were human errors. Though, as pointed out by Management, the number of such cases was 15% of the total of cancelled cases and 0.1% of total cases, this is an area of risk and the possibility of overpayment cannot be ruled out in such a system.

HUMAN RESOURCE MANAGEMENT

67. In January 2007 WHO had confirmed, with effect from 1 July 2007, amendments to the WHO Staff Rules relating to the review of the framework of contractual arrangements. The amended Staff Rule 420.4 envisages that temporary appointments are normally to be issued to individuals employed to carry out functions which are not expected to be needed in the longer term (e.g. for more than 24 months). The rule also provides that temporary functions are to be identified as such in the approved Human Resource Plan. Further, if a temporary function is needed beyond two years, the manager must request well in advance that it be created as a longer-term position; if a function is

needed beyond two years, it must be created and approved as a long-term position as reflected in the HR Plan.

68. It was seen in audit that SEARO had not prepared an HR Plan, identifying the short-term and longer-term positions and therefore audit could not determine whether the appointments made during the biennium were for short-term functions or otherwise. Management has given assurances that the HR Plan would be developed for the biennium 2008–2009. In EMRO, Management informed audit that the EMRO HR Plan was a dynamic document which was being updated on the basis of inputs from WRs as and when received. However, an HR Plan as commonly understood, i.e. one defining the staff requirements and job contents, segregating them into short- and fixed-term and justifying the conversion of short-term to fixed-term etc., could not be furnished to audit.

69. For temporary appointments under six months, vacant posts have not been advertised, some Letters of Offers of Appointment were defective and some documents of acceptance from appointees were missing in the country offices audited in the South-East Asia Region. Instances were noticed where the terms of contracts have been revised several times after commencement without recording justifications in clear terms. There was no assessment of requirement for short-term staff, nor were the functions of short-term staff defined clearly. This was owing to Office of the WR not having a short-term plan and identification of the short-term functions. The Area of Work Action Plan identified some areas for short-term contracts; however, in a number of cases there were deviations from this. Staff members who were onboard on 1 July 2007 were covered by the new Staff Rules and options had to be called for either to continue under the pre-revised or revised rule. In almost all the cases, where the contract was extended beyond 1 July 2007, this option was not called for. Instead, in all cases a new contract was issued from 1 July to the extended period.

70. There was no appraisal of the work objectives at the beginning of the contract. No appraisals under the Performance Management and Development System (PMDS) by the staff and review by the first- and second-level supervisors have been done in any of the cases at the end of the contract period. Subsequent appointments were made without assessment of the performance during the previous terms.

71. I *recommend* that comprehensive HR plans be put on record and the procedures of appointments and extensions thereof be streamlined in the concerned offices. The managements concerned have given assurances that the necessary corrective action would be taken.

PROGRAMME IMPLEMENTATION

Programme budgeting

72. A review of the financial implementation of the programme budget in EURO revealed that although the working budget was less than the planned cost, there were unspent balances in almost all areas of work. This underscores the need for a more realistic resource allocation so that products that are progressing well do not suffer for want of funds. Management stated that movement of funds was governed by the limitations set by donor agreements. WHO was making efforts to encourage donor countries and agencies to provide un-earmarked funding to the Organization in order to maximize flexibility of the budget.

73. While supporting Management's efforts, I *recommend* that resource allocations between work areas be done realistically to avoid situations where there is a significant shortage in some areas and sizable excesses in others.

74. Analysis of the achievement of expected results by Area of Work showed that the budget implementation was below 70 per cent in 34 expected results. From a review of product delivery in audit it was seen that during the biennium 2006–2007, out of a total of 1359 projects due for completion during 2006–2007, only 186 products, which constituted 14 per cent, were completed and 1049 products (77 per cent) were ongoing. Four products were cancelled.

75. The low financial implementation was attributed to some voluntary donations being earmarked for activities in the next biennium, revision of donor agreements to defer activities for the next biennium for which funds have already been received, staff shortages, scaling down and/or cancellation of some activities, and saving of resources due to contributions in kind by Member States. Regular coordination with donors is encouraged to enhance implementation.

Direct Financial Cooperation (DFC)

76. With effect from 6 June 2006 the erstwhile local cost subsidy scheme was replaced with direct financial cooperation. All advances to respective governments were henceforth to be covered by the DFC procedures. However, it was seen that in EMRO 104 cases of local cost subsidies (LCSs) had been agreed to during 2006–2007. Management stated that this was due to the instructions and the memorandum to the WRs being issued well into the 2006–2007 biennium. In WR's Office, Afghanistan, 520 fresh LCSs had been agreed to for the year 2007. The Regional Director of EMRO has since suspended WRs' delegation of authority in regard to issuing any local cost subsidies.

77. Proposals received from the government need to be analysed by the WR's Office to ensure that they are in accordance with the workplan and funding. Although proposals are cleared technically and financially, there was no evidence on record of such analyses having been carried out in WR's Office, Indonesia. Cases test-checked in audit showed that not only were the reports and statements of expenditure received late, contrary to conditions, but there was no evidence on record of their having been verified/scrutinized by the WR's Office to determine whether the requirements of the workplan were being fulfilled. Other than clearance of the responsible technical unit, details of technical and financial aspects were not prepared and the proposals for DFCs were accepted without verifying the terms of reference and the expected results per workplan. Records did not indicate clearance by technical and finance units and approval by WR and there was no check at any stage regarding the technical and financial viability and the relation to the workplan. In some cases the entire amounts proposed were released by WR's Office in one instalment without recorded justifications. The receipt of completion report was not found on record during audit and there was no evaluation by WR's Office on record of the achievement of the expected results. Management agreed to strengthen the process of analysis, clearance, and the process of approval.

78. I *recommend* that agreements entered into by WR should invariably incorporate specific technical and financial terms and conditions. The technical and financial reports to be submitted by governments should be monitored and verified for adherence to the requirements of the workplan to achieve the expected results. Management has accepted the recommendation.

GLOBAL MANAGEMENT SYSTEM

79. The legacy computerized applications being used by WHO were increasingly being found to be unable to deliver in a timely manner the information needed for effective and efficient management and administration of the Organization's programmes. In order to improve operational efficiency, streamline processes and effectively decentralize authority and responsibility, it was decided to replace the fragmented computerized information systems with the Global Management System (GSM), an integrated system for global management and administration, based on Oracle E-Business Suite. GSM was authorized by the Fifty-sixth World Health Assembly in May 2003 with a budget of US\$ 55.5 million. Later, in March 2007, it was decided to adopt a global service delivery model through a global service centre, to be implemented concurrently with GSM. A global service desk is to provide functional and technical support to the GSM users. M/s Satyam was selected as the System Integrator (SI) for the project, which is scheduled to go live on 3 June, 2008.

80. A detailed study of the project processes and preparedness for implementation of GSM was conducted at WHO headquarters in January–February 2008 to examine whether the GSM application development and implementation processes have adhered to the best practices and procedures including risk management and controls, and to review preparedness for the implementation of the GSM application. The audit was based on a detailed risk analysis and was conducted in accordance with the CoBIT¹ framework. On conclusion of the audit a Management Letter containing the audit findings and recommendations was issued to the Secretariat and the response of the Secretariat obtained. These findings, recommendations and the Secretariat's responses are discussed in the subsequent paragraphs.

Project management

81. For a major business project like GSM, which seeks to replace the existing work process of WHO by harnessing technology and doing substantial business process reengineering, it is important to ensure that the project achieves its deliverables with the given functionality within the estimated cost and the time frames envisaged. The time schedule needs to be worked out taking into account critical path processes. It was seen that the project, which was initially to go live in September 2007, was given the first extension until December 2007, then a second until March 2008 and a third until June 2008. The project management stated that a delay of nine months in a project of this magnitude was not viewed as a failure. However, three revisions of deadlines within a year put enormous pressure on the supporting personnel and structures for the project as they have had to constantly keep revising their plans and allocation of resources.

82. The benchmark to be used for project management was PRINCE2² methodology as per the Project Initiation document and the implementation of the phases of the project was required to be guided by Oracle's Application Implementation Method (AIM) and Project Management Method (PJM). It was seen in audit that the PRINCE2 methodology was not followed in toto and only a few forms and registers were maintained; AIM for oracle implementation was also not followed in its entirety and the key delivery phases recommended by the System Integrator (SI) were not perfectly

¹ CoBIT is an internationally accepted IT governance framework that allows managers to bridge the gap between control requirements, technical issues and business risks.

² Projects in Controlled Environments (PRINCE) is a project management methodology. It covers the management, control and organization of a project.

aligned with the AIM phases. Consequently, the project has been moved into the testing stage without satisfactorily completing the preceding stages. Management stated that the GSM project was using the best parts of the PRINCE2, AIM and Satyam's methodologies. It accepted that the key delivery phases recommended by the SI were not perfectly aligned with the AIM phases.

83. I *recommend* that an independent third-party technical acceptance of the solution before go-live may be considered, in the light of the project going into the testing stage without satisfactory completion of previous stages. Management has accepted the recommendation.

84. The project was being managed within a budget of US\$ 55.49 million. However, the costs of many activities directly attributable to GSM implementation including, inter alia, organizational change, global service desk etc., totalling US\$ 28.4 million, were not reflected in the project costs of GSM but have been provided in the regular budget of the Organization. The project management accepted that the costs mentioned by audit were not budgeted within the GSM budget of US\$ 55 million. It further stated that the global service desk and global service centre were in fact separate projects and other costs were considered as part of the normal operating budgets. However, these costs have been incurred for GSM and hence are directly attributable to the project cost and should be shown as such. The running cost for GSM and its support services for the next two bienniums is estimated at US\$ 48.8 million, and for the service centre operations at US\$ 3.5 million per biennium.

85. As per the Project Initiation Document, tolerance is defined as deviation from the required timeline or quality (for example - permissible delays/quality of software) by the GSM project team, and associated vendors. The level of tolerance was to be defined at each phase of the project, and the results monitored regularly. It was seen in audit that tolerance has not been defined in the form of permissible delays or the quality of software in each phase of the project and neither were these reflected in the Project Board minutes. This carries a risk of failing to obtain the desired quality of software within the envisaged timeframe.

86. Audit was informed that the programme management team was involved directly with Health Action in Crises (HAC), the technical unit most responsible for emergencies (HAC) during the development of their Standard Operating Procedures, and in 2007 a series of workshops with health technical units (HTUs) had demonstrated the system and communicated changes. However, audit found in interactions with HTUs that Management's perception that HTUs were heavily involved was not shared by the units themselves. They felt that their level of preparedness was not satisfactory; their involvement in the pilot projects and the user acceptance test was minimal and the outcome of their concerns about the desired flexibility and prioritization of their transactions for emergency responses has not been communicated to them.

87. The objective of regression testing is to thoroughly test the GSM solution with all the fixed codes, configurations, security profiles and responsibilities. This provides an opportunity to perform End to End¹ business integration testing (within E-Business Suite) to stabilize the solution before entering into further phases including the user acceptance test. It was seen in audit that the outcome of regression testing from the perspective of end-to-end business integration, based on the scenario identified and mutually agreed upon with the System Integrators, would not be benchmarked in the absence of detailed expected results before go-live. This is a risk factor against the stability of the solution. Management stated that the detailed test results for the regression test were the same as the

¹ End to End refers to initiating a process and completing it, such as a travel request or procurement request.

Pilot¹ project and confirmed that some scenarios had not been tested from an end-to-end perspective. However, it may be noted here that detailed expected results for functionalities which were not even envisaged in the Pilot cannot be extrapolated to the regression test.

88. I *recommend* that the GSM solution may be fully tested with all fixed codes, configurations, security profiles and responsibilities to confirm the stability of the solution before go-live. Management has accepted the recommendation.

89. It was seen in audit that no parallel runs were planned to be conducted for any module except Payroll at the time of GSM implementation. Even the Payroll parallel is being conducted using earlier months' data and using an instance² altogether different from that which will be used in User Acceptance Test or that will prevail in a live situation. The legacy data are being used to test the calculation accuracy of the GSM system and are not a full time logistics run for time and volume. This carries a risk of the outputs of the GSM solution not being validated against real-life scenarios.

90. I *recommend* that validating other modules in addition to Payroll may be considered against the legacy outputs before go-live to ensure the accuracy of outputs of GSM application modules. Management has accepted the recommendation.

Contract management

91. At the time of entering into the Oracle agreement it was recognized that "hosting services" would be required in order to cover the period prior to engaging a System Integrator to cover the "vendor fit-gap" exercise, and might continue to be required. This was sought to be achieved through Oracle On Demand. It was subsequently recognized that cost savings could be achieved and operational control and responsibility improved through separating the hosting of the development from the application support and extending Satyam's responsibility to include support of the development. In the event, the Organization opted to have the application hosted with International Computing Center and responsibility for the development of the application was given to Satyam. These were achieved through a "Change Request" under the contract. Management pointed out that as a result monthly cost has been significantly reduced and a competitive bidding exercise would not have made sense.

92. In this context it may be borne in mind that as per the contract a "Change Request" is a request to change or add to the services or performance standards. Hosting is completely different from making any change or addition to services. Further, the WHO Manual stipulates that only the Contract Review Committee has the authority to waive any of the procurement rules. While audit appreciates that the award of the work has saved money, awarding a major contract like the hosting contract as a change request technically contravenes WHO regulations and is also not in accordance with the contract with the System Integrator.

93. The contract of US\$ 27 195 000 with Satyam included performance of services i.e. technical activity for 15 000 person days. According to the original plan of work, the programme initiation, completion and end of warranty period were scheduled for October 2005, July 2008 and October 2008 (indicative) respectively. The go-live for headquarters has since been revised to 1 June 2008.

¹ Pilot refers to the Conference Room Pilot, a pilot project carried out at an early stage of the GSM project.

² An instance is the software (and memory) that Oracle uses to manipulate the data in the database.

Until now, Satyam has carried out technical activities for 21,131 days and thereby may claim a total of US\$ 28.6 million, exceeding the contracted amount by US\$ 1.4 million. There is a possibility of this amount rising further with more delays. Management, while recognizing the risks of further costs resulting from potential claims associated with delays, asserted that the contract with Satyam was a fixed-price contract and claims for delays were not automatically acceptable. However, the fact remains that there is a risk of cost escalation resulting from delay claims in respect of the System Integrator contract.

94. The authorized budget of US\$ 55.49 million for the GSM project includes US\$17.6 million for staff. There is a risk of incurring further costs associated with further delays. Any delay in the initial go-live will require the continuation of the full team (at an approximate cost of US\$ 340 000 per month). Any delay after the initial go-live will require the extension of a smaller team (at an approximate cost of US\$ 250 000 per month). Additionally, there are ongoing costs of hosting, third party software support costs and general costs estimated at US\$ 60 000 per month. The project management's efforts to manage such risks through staff planning with suitably timed roll-offs of concerned personnel are encouraged.

Solution readiness and User Acceptance Test

95. User Acceptance Test (UAT) is a very crucial phase in the project life cycle of major IT projects and should be initiated after the solution is completely and fully ready, to test all interlinkages and reports, as it is on the basis of this testing that the users give acceptance to the solution. It was seen in audit that the UAT has been initiated without the solution being 100% ready. Solutions related to workflow monitoring, project security setup, SSA-related customizations¹ as well as eight important reports that were not made available for UAT. Thirteen more reports were to be made available to UAT three weeks after the start of UAT. Acceptance by the business owners of these functionalities not being available for the UAT gives rise to a risk of having a solution that has not been tested fully in all dimensions by the users. Management stated that these components would have minimal impact on the overall solution and over time additional components and fixes would continue to be added to the GSM even after the system has been commissioned.

96. The reply needs to be viewed in the light of the fact that changes before production and changes that are made in an IT system after production are completely different in nature, one being a part of the overall system design and the associated interdependencies between various components, the other being generally incremental and limited in nature on an already established and working solution. The go-live deadline needs to take into account the lead times for various phases and the prerequisites for moving from phase to phase.

97. In the UAT, only partially converted and largely constructed data are being used and the business owners have agreed to run UAT without fully converted data. This leads to the risk of testing the solution without real data and not being able to replicate a real-life situation. The Organization's own Information Technology and Telecommunications (ITT) wing had also raised concerns and pointed out risks of not using fully converted data for UAT as a rigorous UAT should be a mirror of production. Management in its reply stated that UAT was based on a statistically sufficient and representative set of data constructed from a combination of converted legacy data and constructed data. However, it was seen in audit that in the UAT even for a crucial module such as payroll for short-term staff, only 25–30 cases were being used per region. Thus the UAT, in which partially

¹ SSA: Special Service Agreements.

constructed data without extreme boundaries that may actually be encountered after go-live are being used, may not give full assurance about the complete functionality of the solution. This is important as the cutover¹ and other testing would not involve users and this is the last opportunity for the actual users to be involved in the testing.

98. As the UAT is being conducted with partially created and partly converted data I *recommend* that during cutover ensuring fully converted, reconciled and validated data may be considered before go live. Management has accepted the recommendation.

99. In the UAT some users have been given more than one role, as both the initiator of a transaction and the approver of the same. This does not test the segregation of duties principle, as objectivity in approving a transaction when not initiating it cannot be tested by using this methodology. This control is a vital element in the system of checks and balances in the post-go-live scenario and not testing it leads to risks. In reply, Management stated that during UAT the approval process was being tested, including the segregation of duties principle, but did not elaborate on how it was being done.

100. It was seen in audit that only normal GSM business processes were being represented by the End to End scenarios. UAT does not allow any new End to End scenarios to be introduced and the data are to be tested in the normal limits. This makes it a very limited UAT for normal circumstances with normal data, whereas in real-life scenarios, because of the nature of its activities, WHO may need to work in very extreme circumstances, for example, mobilizing large amounts of money in a very short time for emergencies.

Organizational readiness and training

101. The health technical units run a few of their own IT systems which have been developed and are being maintained by these Units. These IT systems need to be connected to the Global Data Hub for obtaining information from GSM to be able to function/generate reports. It was seen in audit that the status of the remediation of applications running in HTUs, which are to be read from the Global Data Hub, was not clear and they would not be tested during UAT using real data. Management stated that it sought to minimize the risks to the Organization by ensuring extensive and regular communication and support on this matter. However, the related critical issues and remedial actions for those were found, in audit, to be undefined. If these are not addressed in time then the risk of these systems, which generate reports for the HTUs, not being able to function in the post-go-live scenario remains unaddressed.

102. The responsibilities of the global service centre (GSC) include global administrative processing, i.e. global payments, global payroll, global human resources, global procurement, global application support (including GSM database administration and GSM application maintenance), global service desk support (including first- and second-level GSM functional and technical support and tracking), and GSM system administration. It was seen in audit that the capacity planning for the global service desk applications at GSC had not been done. The existing bandwidth is sufficient only for diagnostic information collection. If remote PC screen shots are required this will require more bandwidth allocation. Further, no bandwidth increase has been done either for the regional or the country offices and there was no documented plan for a network application profiling exercise for Global Data Hub

¹ Cutover: The process of transferring existing data, functions, or users of a computer system to new facilities or equipment in a synchronized manner.

applications, without which bandwidth requirements cannot be estimated for GSC and other remote offices.

103. Management's decision that a firm business continuity plan for the GSC will be in place before go-live in June 2008 is appreciated. However, an effective business continuity plan needs to be preceded by a risk assessment to define the mission-critical functions and data, the systems supporting them and the impact that their unavailability will have on WHO. It also requires coordination with external parties such as the suppliers of hardware, software and communications service and equipment. It was seen in audit that in the absence of a formal, documented and tested disaster recovery plan, business continuity of the automated processing in GSM, in the event of a major disaster, remains at a high level of risk with significant implications for the working of critical areas of the Organization.

104. I *recommend* that a firm, documented and tested disaster recovery and business continuity plan for the global service centre may be put in place before GSM and GSC go live. Management has accepted the recommendation.

105. The global service desk (GSD) has been established as a single point of contact for information relating to global administrative processing and problem resolution. Since GSD will provide service through remote access of both a business-related and a technical nature, the staff employed in GSD should have the technical capabilities for problem resolution and the centre should have enough bandwidth. It was seen in audit that the staff who would work for GSD were largely newly recruited staff having limited technical knowledge. Therefore their institutional knowledge about the legacy system would also be constrained. It is proposed that this be managed by training in GSM, Oracle systems and in the subjects by subject matter experts, but staff would largely be learning by handling problem resolution. However, it was seen in audit that there was no involvement of the GSD in the User Acceptance Test. Management stated that it was reviewing a proposal by Satyam for second-, third- and fourth-level GSM support during a transitional period after production cutover and GSD staff would be working closely with Satyam during this period; regional offices were also establishing transition service desks to support post-cutover. The reply underscores the risk of overdependence of the Organization on the System Integrator in a post-production scenario.

106. A lack of documented training need analysis (e.g. an analysis of skill requirements and skill gap analysis) and training need identification (e.g. number of staff to be trained for GSM, role-based training to be given to the staff etc.) for the officials of WHO to prepare them for the post-go-live scenario was noted by audit. It was further seen that the training for the staff of the global service centre (GSC) has begun adopting the approach of "Training for trainers", as trained staff members will train other staff at GSC. However, no Trainers' Manual, with structured modules for training delivery or Users' Productivity Kits (UPKs) for transition had been prepared at the time of audit. This indicates a lack of uniformity in approach towards training delivery methodology. Management stated inter alia that instructor manuals were an output of the UPK tool and GSM trainers would be provided with guidelines. However, audit would like to point out here that the UPK is a trainees' manual, not a trainers' manual and that guidelines cannot take the place of detailed manuals.

107. I *recommend* that documented training-need analysis, training-need identification, a Trainers' Manual and Users' Productivity Kits may be put in place before go live, with adequate training imparted to GSM users for the post-go-live scenario. Management has accepted the recommendation.

Knowledge management

108. Given the recurring high volume of work in maintaining the legacy systems, the ITT personnel of the Organization could not be fully associated with the GSM project. Thus there is a limited and insufficient transfer of knowledge of the GSM solutions from GSM and the System Integrator streams to ITT. There is limited organizational knowledge within WHO of GSM functionality, apart from the GSM Project Development Team and the System Integrator; there is no evidence of a formalized, detailed plan for knowledge transfer between the current systems integrator and the ITT, the post-go-live holders of GSM. Management noted the audit observation and stated that it was WHO long-term strategy to continue out-tasking to a third party vendor (offshore) the technical support of the solution and thereby minimize the need to transfer and sustain detailed technical knowledge of the solution in-house. It gave assurances that as it worked to negotiate the support contract, the risks of over-dependence on the System Integrator, observed by audit, would be given full consideration.

109. I *recommend* that a formalized detailed time-bound plan for detailed knowledge transfer between the System Integrator and ITT may be put in place. Accepting the recommendation, Management stated that the required knowledge transfer would be undertaken during the roll-out and stabilization period.

Data conversion, cutover and transition

110. It was seen in audit that the complexity and scale of work on data conversion have been underestimated or not appropriately prioritized by the GSM project management; the conversion strategy had not been followed consistently and the actual work did not follow the methods laid down in the conversion document. Management stated that the conversions required for GSM were indeed complex and resource constraints delayed the completion of some of the detailed conversion documents. It further stated that the conversion strategy as outlined in the conversion document had been followed with a few exceptions. However, it was seen in audit that a number of critically important documents have still not been designed.

111. It was seen in audit that data availability by businesses included new data which would have to be created and which did not exist in the legacy systems. This requires manipulation and creation/manufacturing/assembling of electronic data. Specifically, there are challenges in the programme and finance units' data conversions where workplans need to be finalized, approved, linked with HR costs and prepared for conversion testing. The slippage in these areas may have an adverse impact on the cutover and the schedule of go-live. Management stated that the above fact has been highlighted as a risk to all stakeholders.

112. It was seen in audit that no historical data would be converted/transferred from WebBuy, the existing procurement software in WHO; it will continue to be available in WebBuy and can be accessed only until WebBuy is shut down. It was considered by Management that a database would be built up in GSM in a few years. This carries a risk that trend analysis of past orders and vendor and supplier performance evaluation will not be possible. Management stated that in addition to the limited benefits, converting historical purchase orders into GSM was not a simple task, and as a result of this complexity, purchase order data in WebBuy would be made available as part of the legacy decommissioning and data archiving strategy. However, as no data warehousing functionality is proposed for the historical information contained in GSM and the legacy decommissioning and data archiving strategy are still to be finalized, the loss of institutional memory of the Organization is a real risk in the post-go-live scenario that needs to be taken note of.

113. I *recommend* that making historical information available to the businesses through a suitable interfacing mechanism between the legacy WebBuy and the GSM, in consultation with the business-owners, may be considered. Management has accepted the recommendation.

114. It was seen in audit that data validation was not explicitly embedded in the GSM project and there was no formal data integrity testing. Normally data should be reconciled and certified by business owners. It was observed that insufficient time was allocated for this activity in the project plan. From interaction with users it was understood in audit that some validation was expected but details of sample size and the period during which validation would be done was not clear. There was no evidence of estimation and planning that quality assurance of the converted data (i.e. validity and integrity testing by business owners) would take place.

115. Though Management stated that the risk about quality of data was being mitigated in the cutover processes, a study of the official cutover document revealed that in many cases, for objects which determine important transactions (duty stations, locations, travel events, suppliers, items, purchase orders, allotments, programme budget etc.) the acceptability criteria were described in generic terms and most depended on count tally and random sampling. Business plans on how to do the detailed reconciliation and sign off were unclear. As this would be the last opportunity before data is finally loaded into the GSM for actual running in the post-go-live scenario, such limited testing of quality of data is a risk which may later require remediation when the system is operational.

116. I *recommend* that Management may consider defining in specific and detailed terms the reconciliation and validation methodology for converted data, with concrete statistical inputs, to be adopted by businesses, before uploading the converted data in the GSM for go live purposes. Management has accepted the recommendation.

117. The legacy system decommissioning is the practice of removing a system (application, database and/or platform) from service, while retaining access to the business-critical data housed within that system. There was no evidence of finalization of a strategy for legacy system decommissioning and a database archiving. If the legacy systems are not decommissioned effectively and efficiently, there could be significant future additional costs to WHO in terms of hardware, software, human resources and infrastructure. Moreover, considering the fact that for some functional streams only the balances are being taken into the system and not the full historical data (e.g. Procurement), the risk of loss of institutional memory and its impact on the decision-making processes remains high. Management gave assurances that as it worked to finalize the strategy the risks observed by audit would be considered and an interim strategy would be in place to facilitate the cutover to the GSM and to outline the mid-term archiving strategy.

System security

118. It was seen in audit that though there was a WHO Global Information Security Document which covered high-level overarching security policies, the related processes were not detailed and no formal Information Security Management System (ISMS) was in place for the GSM environment, including the global service centre. This is a major risk area, especially for GSC, where major transaction processing will take place which will have linkages with GSM servers and with regional and country offices. Management stated that WHO was developing an ISMS and gave assurances that it would soon draft, coordinate and obtain approval of several mainstream policies that would set the background for the day-to-day security decisions and processes.

119. An enterprise resource planning (ERP) system such as GSM has a large number of users accessing the system and large volume of transactions per employee. There are risks associated with the sharing of information with third parties such as suppliers by the linking of systems. As a result of the above, ERP systems, while bringing about increased efficiencies through the streamlining of business processes and significant reduction or elimination of manual processes, need to have appropriate security controls built into them.

120. Audit appreciates that security development and testing have always been considered by Management as integral to the different phases of the project in which security components were put in place and tested as part of both the Pilot project and the User Acceptance Test. Further, Management has stated that there was an in-built security mechanism in the Oracle application, database level security was in place, and operating system level access was controlled and limited. However, in the absence of a properly documented and tested plan, the evaluation of effectiveness of the system's security features and identification of any weaknesses, including penetration testing for network security, and their mitigation, remains to be addressed.

121. I *recommend* that the evaluation of system security including penetration testing may be carried out rigorously and documented. For this, engaging an independent third party may be considered. Management has accepted the recommendation.

Conclusion

122. The audit review flags a number of risks in areas of project management and the ongoing preparatory exercises and tests leading up to the commissioning of the GSM. Though it cannot be asserted with certainty at this stage that the risks will manifest themselves in breakdowns or stalling of the system on commissioning, if left uncovered they may render the system vulnerable, even necessitating costly rectifications at a later stage. Management has indicated its acceptance of the recommendations, which is a welcome step towards mitigating the risks.

123. The above recommendations relating to global service management are accorded high priority. Management has accepted the recommendations.

CASES OF FRAUD AND PRESUMPTIVE FRAUD

124. During the biennium there were seven cases of proven fraud involving US\$ 235 235. I am pleased to note that necessary administrative actions have been completed in these cases, with two cases remaining subjudice. Other cases of presumptive fraud have been reported and investigations have been launched by Management into these cases. Progress of investigations and actions taken will be monitored in External Audit.

ACKNOWLEDGEMENT

125. I wish to record my appreciation for the cooperation and assistance extended by the Director-General, the Regional Directors and the staff of the World Health Organization during the audits.



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External Auditor
28 March 2008