The Public Accounting System on the SAP ECC 6.0 Platform Audit Report

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AUDITOR GENERAL'S OFFICE

Contents

Abbreviations

AGO	Auditor General's Office
BI	Business Intelligence
CBA	Cash Based Accounting
COBIT	Control Objectives for Information and Related Technology
GoM	Government of the Maldives
HRMD	Human Resource Management and Development Committees
IPSAS	International Public Sector Accounting Standards
IPSASB	International Public Sector Accounting Standards Board
ISSAI	International Standards of Supreme Audit Institutions
IT	Information Technology
MoE	Ministry of Education
MoFT	Ministry of Finance and Treasury
MMA	Maldives Monetary Authority
MTEF	Medium-term Expenditure Framework
NCIT	National Centre for Information Technology
NIC	National Integrity Commission
PAS	Public Accounting System
PIC	Police Integrity Commission
SAP	Systemanalyse und Programmentwicklung (German accounting software)
TBD	To be determined
WB	World Bank
WOGA	Whole of Government Accounting

EXECUTIVE SUMMARY

This audit was carried out as an Information Systems pilot audit by the AGO with the assistance of consultants from the KOSI Corporation Ltd. The focus of the review was on how effective the SAP accounting system had been in producing compliant financial statements, and its other key financial management objectives, by analysing user feedback and hands-on testing of the software and related documentation.

The primary purpose of SAP was to act as the IT platform for the Public Accounting System of the Maldives in order to meet government accounting, budget management, payroll and reporting requirements in accordance with the Law on Public Finances 3/2006.

The fact that the AGO has to date been unable to issue unqualified audit reports for the majority of entities benefiting from the SAP implementation is prima facie evidence that the system has not produced any noticeable improvement in the quality or scope of the financial statements required by the relevant accounting law and regulations.

The inability of reporting entities to follow cash-basis IPSAS precisely, as evidenced by AGO audit reports, is in large part due to a combination of technical and compliance issues beyond the control of the agencies. However, there is also some evidence that a lack of financial discipline within some of the audit entities also contributed to this outcome, albeit to a relatively minor extent.

It has also not been possible for the reporting entities, or the MoFT, to present complete and accurate individual or consolidated balance sheets in SAP even though this was one of the system's primary design objectives. Furthermore, as our tests have indicated, cash-based accounting has not been configured in the financial accounting module while the cash-basis accounting workaround offered by the MoFT for the financial year 2014 proved unreliable.

The evidence we have seen also proves that the SAP implementation plan presented to stakeholders in 2008 has not been fully carried out as intended. Some SAP modules remain in development whereas the original plan was to complete the roll out of all PAS modules by the end of 2010 at the latest.

Overall, uncertainty about SAP's reporting functionality, insufficient training in the use of the program and sense of a loss of control over their own accounting domains are clearly factors in the user entities' general lack of faith in the SAP system as evidenced by the statistic that 76% of them rely in full or in part on other software for their accounting and reporting needs.

Looking at SAP from the perspective of its immediate external environment it is clear that government agencies find it difficult to retain IT and functional staff skilled in SAP due to budgetary constraints on salaries and limited opportunities for staff development, and that this situation is undermining their ability to use the system effectively. Moreover, system and data security activities carried out by the MoFT's IT support function do not appear to follow the highest (international) standards, resulting in a residual risk of data loss or corruption.

SUMMARY OF RECOMMENDATIONS

To what extent did the SAP implementation meet its objectives?

We recommend that the MoFT develops a revised SAP implementation plan for the full roll-out of all the procured modules. In addition to the implementation plan, the underlying SAP master plan should be redrafted with an amended scope and timetable as required.

The master plan should foresee the development of the accounting framework in the Maldives from cash-basis to accruals-basis IPSAS over a reasonable timeframe, as well as the consolidation of the whole of government accounts, and the management of public sector budgets and debt in the SAP system, in accordance with an agreed schedule.

Does SAP enable compliant financial and budget execution reports?

To facilitate the delivery in SAP of cash-based financial statements in compliance with the prevailing accounting framework, we recommend that the MoFT engages experts in SAP to specify how best to set up the system to prepare compliant financial statements. The main options to consider are to: i) continue with the development of report writing in the BI module or; ii) configure the financial accounting modules in SAP of all reporting entities to take advantage of the system's in-built cash-based accounting (CBA) functionality. In either case, before the chosen solution is rolled out, the options should be thoroughly tested.

The financial reporting framework and international best practice

We consider it necessary for the MoFT to initiate a joint review with the AGO of the wording of the amended Law on Public Finances 3/2006 in order to remove the scope for confusion and incorrect application. The MoFT should give those entities using SAP clear, technically correct and detailed advice on a timely basis about how to ensure that their financial statements and disclosures, including the Statement of Receipts and Payments and Statement of Comparison of Budget and Actual Amounts, are presented in accordance with the Public Finance Circular from April 2012 and its annex.

SAP to satisfy the needs of public sector reporting entities

We recommend that the Minister of Finance instructs his Ministry to conduct its own comprehensive survey of user perceptions of the SAP implementation in order to validate and, if appropriate, expand upon the findings of the survey carried out by the AGO in 2015. Based on the findings of the MoFT survey, the authority delegated by the Minister to conduct the enquiry should prepare a report of actions to be taken by the Ministry or other agencies in order to support the key areas of user need.

Maintaining HR capacity to sustain effective SAP systems

We recommend SAP user entities across the GoM to take all possible measures to retain qualified IT staff so as to ensure proper technical support of local users. This may include lobbying the Civil Service Commission of the Maldives to consider amendments to the Maldives Civil Service Regulation that would enable agencies relying on the SAP system to put make proposals for consideration by the Pay Review Board about possible discretionary pay awards to key IT and functional staff where there is a risk that the agencies could otherwise lose essential SAP know how.

Technical support of the SAP systems

We recommend that the MoFT reviews its provision of documented guidelines given to users to date on the preparation of compliant financial statements through SAP. In addition, any operational IT challenges faced during the use of SAP must be logged for future reference.

1 AUDIT OBJECTIVES, SCOPE AND APPROACH

1.1 Background

SAP ECC 6.0[1] was the financial management software chosen in 2008 for the implementation of the Public Accounting System (PAS) of the Republic of the Maldives. The purchase of the software was funded with the assistance of the World Bank. The PAS was intended to "meet government fund accounting, budget management, payroll and reporting requirements including agency management accounting, monitoring and reporting in accordance with the Law on Public Finances 3/2006."[2]

The Ministry of Finance and Treasury (MoFT) of the Government of Maldives (GoM) is the central government body responsible for the economic and financial management of the country, including the budget process, and is the purchaser responsible for the Public Accounting System Project on behalf of the GoM.[3]

In the initial design developed by International Management Consultants Limited, the functional objectives of the PAS were envisaged as enabling the 37 statutorily defined "administrative units" of the government of the Republic of the Maldives to:

- Provide accurate, reliable, timely data and financial reports;
- Support economic decisions aimed at maximising the effective use of public funds;
- Improve budget practices and budgetary control;
- Improve financial management by integrating with HR payroll functions and other financial management systems;
- Enhance financial management and control over public funds.

According to the Stage 2 Evaluation Report in respect of the SAP procurement, a sum of US$3.7m was initially allocated to cover the cost of the software. The capital price bid from the company chosen to implement the system, Atos Origin (Singapore) Ltd, covering the costs of hardware, software licences and implementation services through to the completion of Phase 2, was US$3.64m. Phase 3 implementation services and a modest contingency sum increased this figure to $4.95m. It was estimated that the inclusion of provisions for Phases 4 and 5 would increase the total capital value further to $6.6m. The full-year recurrent costs were estimated at US$230,000.

It should be noted that, starting from the initial design of the PAS developed in 2008 by the system design consultant, it was never explicitly envisaged by any of the stakeholders[4] that the PAS would be capable of reaching all levels of public administration except indirectly through the relevant agencies (ministries and statutory bodies) which would "rationalise" the accounting of all the entities formally responsible to them.

As the SAP system forms the IT platform for the PAS it plays a critical role in providing better management information to ensure that Public Financial Management in the Republic of the Maldives improves significantly. Besides, significant money and time resources have been expended on its implementation and it would be reasonable for the Maldivian taxpayer to expect that it has at least met the information objectives set for it at the outset.

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[1] ECC stands for "ERP Central Component" and is the successor of SAP R/3
[2] PAS Implementation Inception Report, Atos Origin (Singapore) Ltd, January 2008
[3] PAS Design Inception Report, IMCL, 2007, Annex 3, page 1
[4] The PAS Project Steering Committee at the design stage was chaired by the Minister of Finance and Treasury and comprised representatives from the MoFT and MMA, but without the involvement of the AGO

1.2 Objectives and Scope

The primary objective of the audit was to assess the effectiveness of the SAP implementation in delivering the intended purposes of the Public Accounting System in the Maldives.

The auditor defined the following objectives in the audit plan:

- To determine whether the selection of the SAP system and its configuration was properly aligned with the financial accounting and reporting objectives for which it was intended;
- To assess whether SAP is being used across the public sector administration in the Maldives to enable the production of compliant financial and budget execution statements;
- To assess the challenges yet to be overcome to achieve the government's financial reporting and budgetary control objectives through the use of the SAP system;
- To consider the extent to which the SAP satisfies the needs of public sector reporting entities in relation to the production of compliant financial statements.

Thus, the audit's focus was very much on the extent to which SAP has been used since its introduction in 2009 to enhance financial reporting and financial management across the Maldivian public sector by applying the best possible measures of compliance including compliance with international accounting and auditing standards.

Apart from the ability of SAP to produce compliant financial and budget execution statements, the audit also considered the capacity of the IT and human resources involved in the implementation and ongoing maintenance of the SAP system. It gathered evidence from the MoFT's IT support functions and the users themselves to draw conclusions about the overall effectiveness of the system implemented under the guidance of the MoFT.

1.3 Audit Methodology

The audit was carried out by the IT audit unit of the AGO between July 2015 and February 2016. In all, over 100 days of specialists' time were allocated to the planning, execution and reporting phases of the audit. The AGO team was supported throughout the three phases of the audit by an international consultant representing KOSI Corporation Ltd.

Evidence in support of the conclusions set out in this report was gathered using conventional audit techniques including: face-to-face interviews with MoFT officials and representatives of reporting entities; web-based opinion surveys completed by users; desk-based research of legal and project management documents; and analysis of relevant data in the SAP system.

The AGO wishes to express its appreciation of the co-operation it received from the MoFT and the reporting entities that responded to its online questionnaire. Particular gratitude is reserved for the officials of the PIC (now part of the NIC) and Ministry of Education, our sample entities, whose generous access to people and information greatly assisted in the conducting of the audit.

1.4 Caveats and Assumptions

In this report, the use of SAP at a sub-agency level is not considered. Moreover, this review does not seek to make a judgement of the public sector financial management framework adopted by the Government of the Republic of the Maldives (GoM) including budgetary control and financial reporting systems, other than it should comply with the law.

Neither did this audit consider, directly at least, such questions as how the system was procured or how the SAP implementation project was managed as a whole.

It is also tempting to ask when considering the overall impact of the SAP procurement on the public sector in the Maldives: did the system deliver value for money? This, however, was not an audit of performance taking into account the relationship between inputs and outputs. Instead, we have focused on the evidence of what the system does compared to what it was designed to do in the relatively limited context of public sector accounting.

2 AUDIT RESULTS

2.1 To what extent did the SAP implementation meet the objectives for it?

Based on the findings of our review, we conclude that most public sector entities, including the MoFT, have been unable to deliver the majority of the financial and fiscal reporting requirements in SAP that the system was specifically designed to address. However, the software itself is not implicated in this outcome. Rather, it is the way it was used, or not used correctly.

Cash-basis financial statements are generally not produced in SAP. Neither has the presentation of a Whole of Government balance sheet been possible to date, despite this being one of the SAP system's key design objectives.

The MoFT has suggested that Whole of Government Accounting (WOGA), or the State's Annual Statements, will become relevant only after the adoption of an accruals-based accounting framework in the Maldives. This does not fully explain, however, the lack of progress to date in producing the public sector balance sheet since: i) the Finance Circular from 2009 specified IPSAS as the approved accounting framework which suggests that accruals accounting was the official norm between the launch of SAP and the nominal switch to cash-basis IPSAS in 2012; and ii) the current accounting framework still provides for the disclosure of assets and liabilities.

The MoFT also asserts that it has implemented consolidated budgets, receipts and payments across the public sector in SAP. However, based on user feedback, it is our view that the implementation of full HR and payroll capability in SAP, along with asset management and commitment accounting, is incomplete several years after it was due.

It is also evident that the implementation plan presented to stakeholders in 2008 has not been fully carried out as intended. Some SAP modules remain in development whereas the original plan was to complete the roll out of all modules by the end of 2010 at the latest.

The performance of the SAP system's implementing consultant has also been questioned publicly in the letter dated September 2008 from the MoFT seen by the auditor. Failure to meet the contract's terms of reference could have had an impact on the overall cost of the implementation, particularly if any rework or contract extension was caused by poor contractor performance. It is clear that delivery deadlines were missed and that lapses in quality arose.

The most glaring example of delivery shortfall is the widespread absence, as reported by users, of SAP standard reports supporting compliant financial accounting, or at least proper user understanding of them. Whereas the original SAP design concept made user-defined reporting an essential feature of the system, the subsequent implementation plan appears to have de-prioritised reporting functionality in the SAP configuration and this is probably one of the root causes of the current under-provision.

2.2 Is it technically possible to generate compliant financial statements and budget execution reports from SAP?

In our view, the practical effect of applying article 8 of the Law on Public Finances 3/2006 is that government agencies de facto adopt an accruals basis of accounting which SAP is specifically designed to support. However, our findings also suggest that SAP is not yet configured to produce financial statements in compliance with cash-basis IPSAS and the 2012 amendment to the relevant accounting law. The MoFT believes that the introduction of the BI module will enable cash-basis reporting in due course but we were unable to confirm when this outcome is likely to materialise.

As our tests have indicated, the cash-basis accounting workaround offered by the MoFT for the 2014 financial statements could not be relied upon to give the required results, especially for the larger entities with higher transaction volumes. The fact that the proportion of unqualified audit opinions rose for the reporting year 2014 is not sufficient evidence that entities found it easier to comply with a cash-basis accounting framework by following the MoFT's method of identifying cash payments. Our conclusion is that the suggested methodology is fraught with the risk of error.

A better solution, in the absence of a fully-tested BI module, would have been achieved by configuring the existing SAP Financial Accounting module to deal with cash-based accounting (CBA) and reporting. It is therefore surprising that the relevant inbuilt CBA functionality in SAP was not deployed to develop automatic cash-basis financial statements from 2012 onwards. This lack of response by the MoFT's IT support function to a clear technical need points to a lack of in-house SAP expertise as well as a missed opportunity to engage high-quality external advice on a timely basis.

2.3 Is the prevailing financial reporting framework consistent with international best practice?

This area was examined because in order for the SAP system to do its job properly the underlying legal and accounting framework should not create obstacles to compliance.

If entities delay the closure of the financial year in SAP for 30 days in order to make payments against the previous year's budget (in compliance with article 8 of the Law on Public Finances 3/2006), they are in fact violating the principle of cash accounting, as regulated by the IPSAS cash-basis standard and required by article 12 of the Act. When the 30-day rule is applied, which appears to be the norm for public sector accounting in the Republic of the Maldives, both actual and budget figures are stated on an accrual basis.

However, for the financial year 2014 only, when compliance with article 8 of the Law on Public Finances 3/2006 became unnecessary, reporting entities were able to apply the cash basis of accounting for the first time since its introduction in 2012. Similarly, since that part of the budgeted expenditure not paid in cash was transferred to the budget of the following year, both the actual and budget figures in 2014 were accounted for on a cash basis.

Because of the wording of the amended accounting law, in the absence of specific guidance to users forbidding the back posting of cash payments into the previous accounting period, either of the variants of the basis of expenditure recognition mentioned above inevitably contradicts one or other article of the Law on Public Finances 3/2006.

Under international financial reporting standards, consistency of accounting treatment is essential for making the financial results and performance of entities comparable between each other and of the same entity over different time periods. Given the temporary switch between 2012 and 2015 from de facto accrued expenditure recognition to a cash basis and back again, the financial statements of the reporting entities for those years cannot be said to be consistent and therefore comparable with each other.

Another consequence of the impact of changes in public sector fiscal management policy on the basis of accounts preparation is that entity-level expenditure patterns between the years in question are distorted. This could have negative consequences for the recording and reporting of national statistics of public sector expenditure and for the setting of accurate future budgets.

2.4 Aside from the technical and legal constraints, to what extent are the reporting entities using SAP to produce compliant statements?

According to the sample of AGO audits reviewed for the years 2011 to 2014 inclusive, 71% of 2014 audit reports were unqualified versus 0% in 2013, 33% in 2012 and 25% in 2011. It is the belief of the AGO that the successful application of cash-basis accounting rules was predominately the result of manual intervention in the preparation of accounting statements. But the very fact that the AGO has been unable to issue unqualified audit reports for the majority of entities benefiting from the SAP implementation is prima facie evidence that the system has not produced any noticeable improvement in the quality or scope of the financial statements referred to in the Law on Public Finances 3/2006 and related regulations and standards.

The inability of reporting entities to follow cash-basis IPSAS precisely, as evidenced by AGO audit reports, is in large part due to a combination of technical and compliance issues beyond the control of the reporting agencies. There is also some evidence, however, that lack of financial discipline within some of the entities also contributed to this outcome, albeit to a relatively minor extent.

2.5 To what extent has the implementation of SAP satisfied the needs of public sector reporting entities in producing compliant financial statements?

Overall, uncertainty about SAP's reporting functionality, insufficient training in the use of the program and sense of a loss of control over their own accounting domains are clearly factors in the user entities' general lack of faith in the SAP system as evidenced by the statistic that 76% of them rely in full or in part on other software for their accounting and reporting needs. However, the MoFT believes that the reporting functionality of the BI module (currently still under development) will help to improve the users' perceptions of the system in future.

Inadequate training was particularly highlighted by users as a factor contributing to their unwillingness to rely solely on SAP to prepare compliant financial statements. When asked whether they had received adequate training prior or subsequent to SAP implementation, 83% of the respondent entities said they had not.

2.6 What measures are being taken by the reporting entities to maintain sufficient human resources capacity to sustain effective SAP systems?

Based on our analysis of sample entities, it is clear that the HR environments of the wider SAP user community may be insufficient to maintain a sustainably effective operational environment for the system. Specifically, it is evident from our audit findings that:

- There is a deficit of technical SAP knowledge at the entity level and therefore a heavy reliance on outside agencies, such as the MoFT, to provide expert advice and training to staff. Only on-the-job training from existing staff can be offered to new recruits from the entities' own resources;
- Managers also lack the necessary technical skills and are therefore in a weak position to supervise staff working in the SAP system, let alone map out strategic and operational pathways around known short- and longer-term problems;

- The turnover of staff with SAP skills is greater than the average which reflects the high value of such skills in the open employment market, particularly in the private sector or abroad;
- The entities in the sample do not have clear strategies for developing, retaining or recruiting in-house expertise in accounting, financial reporting and budgetary control in an SAP environment;
- The lack of provision in the civil service pay framework for adding a premium for skills in short supply (other than in a handful of independent agencies) acts as a significant barrier to the long-term retention of SAP know-how within public sector entities;
- Other centrally-prescribed policies, or entity-specific conditions, can limit promotion and development opportunities with its negative impact on staff retention.

Based on the evidence found by this audit, users do not believe that their training needs are being met adequately. Such views may not fairly reflect the true accountability for the perceived failure of training as the entities themselves also have a responsibility for managing their own staff training and retention processes. However, given the low satisfaction rating with centrally-co-ordinated SAP training it could be inferred that the MoFT's investment in this area has not achieved its desired impact. The MoFT was the recommended training counterpart of the SAP implementing consultant and, to judge from the negative statistics emanating from the user entities, this role has either not been fully accepted by the MoFT, has been underfunded or inadequately executed.

The high turnover among functional and IT staff skilled in SAP has a direct impact on the employing entity's ability to produce compliant financial statements or any other outputs for which SAP was procured. It leads to a sudden loss or reduction in technical capacity within the entity which in turn compromises the organisation's ability to meet its reporting obligations.

When there are no solid human resource policies and schemes to recruit, train and retain a suitably qualified workforce it is much less likely that an entity will be able to operate an effective financial reporting and budgetary control system using SAP. This is because the staff who are using the system are not fully competent in their use of the accounting system even if they are provided with manuals and other materials to work from.

2.7 What measures are being taken by the MOFT and reporting entities to enable the reporting entities to maintain effective SAP systems?

Based on the information gathered during our audit it is clear that the MoFT does not have proper documented policies and guidelines to effectively manage logs of incidents reported by user entities.

Despite being the sole authority managing the SAP system, the MoFT has not adopted a formally recognized information system security control standards or frameworks needed to safeguard the most heavily relied-upon information system used in the government sector.

Inadequacy of data storage is an imminent problem faced by the MoFT and no concrete plans for a hardware upgrade have been developed to the knowledge of the auditors.

3 BASIS FOR AUDIT CONCLUSIONS

3.1 To what extent did the SAP implementation meet the objectives set for it by the GoM and the World Bank?

3.1.1 What should have happened?

Public Accounting System Implementation Plan

In its inception report the implementing consultant, Atos Origin, stated that the PAS would: "provide a better tool with which to implement reforms, for example: adoption of a Treasury Single Account; improved cash management; **adoption of international reporting standards; improved budget preparation and maintenance; improved reporting**; and enforcement of business rules."

The functional scope of the SAP implementation project was envisaged by the implementing consultant as including the following: [5]

- Budget preparation;
- Budget maintenance/management;
- Budget execution and treasury management, including budget release and warrant control;
- Reporting of committed and actual expenditure against revised and released budgets;
- Modified accrual based accounting;[6]
- Bank account and cash management;
- General ledger;
- Procurement, including:
    - Commitments of purchase orders;
    - Maintenance of a central supplier register; and
    - Support for e-procurement;
- Accounting for payments and receipts;
- Financial reporting;
- External reporting, including Government Financial Statistics and Classification of Functions of Government accounts categorisation.
- Project accounting;
- Accounting for Trust accounts;
- Payroll and pensions;
- Human resource management;
- Stores and Inventory management;
- Fixed Asset management;
- Support for auditing.

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[5] PAS Implementation Inception Report, Atos Origin (Singapore) Ltd, January 2008, Pages 73-79
[6] In the International Management Consultants Limited PAS design report from 2007, modified accruals accounting is defined as a system of accounting where receipts are recognised on a cash basis whereas expenditure, assets and liabilities are recognised on an accruals basis

Reporting

The ability to develop and distribute financial and fiscal reports is an essential part of any public sector financial management system and the design of the PAS is full of references to the need for the eventual software solution to deliver a list of key reports as a minimum requirement. The functional design specified the system's ability to produce the following reports for each Fund, Agency or Ministry, sub-agency cost centre and, consolidation for State reporting[7]:

- budget and actual income and expenditure statements;
- statements of assets, liabilities and contingent liabilities;
- balance sheets;
- consolidated income and expenditure accounts; and
- statement of fixed assets and contingent liabilities.

These reports (except the full balance sheet and statement of contingent liabilities) would support compliance with IPSAS-cash basis accounting as well as the amended Law on Public Finances 3/2006. It is interesting to note that the designers of the PAS envisaged that the system should be capable of producing entity and consolidated balance sheets, as would be required under an accruals based accounting framework. It should also be noted that WOGA (the State's Annual Statements) is also explicitly stated in the design consultant's functional requirements where "consolidation for state reporting" is a key pre-requisite of the PAS design. Apart from these pre-programmed reports, the system designers also saw the necessity for PAS users to be able to design their own reports.

While it is evident from the PAS design that the system was required to deliver the minimum reporting functionality as defined above, the project plan developed by Atos to cover the implementation of PAS is less clear cut. Here the implementing consultant states that while the Business Intelligence (BI) module of SAP is within the scope of the contract, the basic approach will be to adopt standard SAP reports where feasible.[8] BI contains a very powerful set of tools that can be used to create user-defined reports in SAP of great complexity. Standard SAP reports within the various functional modules are pre-written and as such do not demand any special IT skills unless they require amendment.

The reference to BI in the implementation plan is potentially confusing when set alongside the implementing consultant's "basic approach" with its emphasis on the standard reporting functionality of SAP. Atos confirmed in its inception report that it would take responsibility for producing all statutory financial statement and budget report formats in English using standard SAP reporting functionality as well as to provide the standard PAS dictionary of field names and terms to add the Dhivehi equivalents.

Implementation Schedule

According to the SAP project plan developed by the implementing consultant, the first phase of the project was due to last the whole of 2008, ending with the roll out of all PAS modules other than the functionality to deliver the MTEF and full HR capabilities in December of the same year.

Phase II (until September 2009) and Phase III (due for completion by September 2010) were designed to build on the earlier implementation phases. Phase II would extend the PAS to a small number of Ministries and their spending units on Male' and then to trial the PAS in a small number of spending units on one atoll. Phase IIIa would extend the PAS to all Male' agencies and Phase IIIb to all atoll centres. Phases IV and V were planned as the means of respectively concentrating on the specialist areas of budget management and human resource management. The organisation, timeframes and

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[7] PAS Inception Report, Annex 3, page 14-15
[8] PAS Implementation Inception Report, Atos Origin (Singapore) Ltd, January 2008, Page 13

scopes for these sub-projects were not determined as at the date of the inception report.

The scope of the various phases and their key dates are summarised below:

Table 1 - Implementation Phases and Key Dates

Phase	Description	Key Dates
Phase Ia	Implementation of Budget Execution, Payroll, Core Accounting and Reporting modules in MoFT. System to act as GL for whole of Government. Completion of all mandatory reports and Dhivehi translation of reports, menus and data entry screens.	Acceptance August 2008
Phase Ib	Implementation of basic functionality of Accounts Receivable, Inventories and Fixed Assets in MoFT. To also include implementation of basic budget preparation and maintenance functions.	Acceptance October 2008
Phase Ic	Full roll-out of all PAS modules (other than the Phase IV Budget and Phase V HR functionality) to all MoFT related spending unit offices (Male' based) and the Auditor General's Office – All PAS modules rolled-out.	Acceptance December 2008
Phase IIa	Roll-out of all PAS modules (other than the Phase IV Budget and Phase V HR functionality) to Four Ministries and all related Male' based related spending units for the four Ministries. These Ministries to include Presidents Office, Planning & National Development, Education and Atoll Development.	Acceptance June 2009
Phase IIb	Full roll-out of all PAS modules (other than the Phase IV Budget and Phase V HR functionality) for one of the selected Phase IIa Ministries' (to be determined) spending units on one "local" atoll (to be determined).	Acceptance September 2009
Phase IIIa	Roll-out of all PAS modules (other than the Phase IV Budget and Phase V HR functionality) to all Ministries and related spending units on Male'.	Commence October 2009
Phase IIIb	Roll-out of all PAS modules (other than the Phase IV Budget and Phase V HR functionality) for all spending units on all atolls.	Commence January 2010
Phase IVa	Design, configuration and implementation of budget modules to support MTEF, output measures, budget ceilings, capital project life cycle costs etc. Implementation of these modules to the Ministry of Finance & Treasury, as well as four other Ministries and their Male' based spending units. These four Ministries to include President's Office, Planning & National Development, Education and Atoll Development.	TBD
Phase IVb	Extension of MTEF and Performance Budgeting to all Ministries and spending units.	TBD
Phase V	Implementation and appropriate full integration of the Human Resource Module and subsequent roll-out to all employing agencies and spending units.	TBD

Scope of the Implementation

The specific SAP modules envisaged by the implementation plan were as follows:

Table 2 - SAP modules Envisaged by the Implementation Plan

Business Requirements	SAP Module (Sub-module)
Budget Preparation	Strategic Enterprise Management –Business Planning and Simulation [SEM-BPS]
Budget Maintenance / Management Budget Execution and Treasury Management including: • Budget release and warrant control • Reporting of committed and actual expenditure against revised and released budgets • Modified accrual based accounting • Bank account and cash management	SEM-BPS **Funds Management** (Budget Control System) **Funds Management** **Financial Accounting / Materials Management** **Financial Accounting** (AP/AR/GL)
Trust Management	Funds Management
General Ledger	**Financial Accounting** (General Ledger) / **Controlling** (Cost Centre Accounting)
Procurement including: • Commitments of purchase orders • Maintenance of a central supplier register • Support for e-procurement	**Funds Management and Materials Management** (Procurement) **Materials Management** (Procurement) **Materials Management** (Procurement)
Accounting for payments and receipts	**Financial Accounting** (Accounts Payable / Accounts Receivables)
Project Accounting	**Project System**
Accounting for Trust Accounts	**Funds Management**
Payroll and pensions	**Human Capital Management** (Payroll)
Human Resource Management	**Human Capital Management** (Personnel Administration / Organisational Management)
Stores and Inventory Management	**Materials Management** (Inventory Management)
Fixed Asset Management	**Fixed Asset Management**
Support for Auditing	Tool: Auditing Information Systems, **Standard SAP reports**
Reports	**SAP standard reports / Business Intelligence** / SAP Query / Report Painter

Project Management

By the time of the Atos report, a PAS Steering Committee was established to oversee the entire PAS implementation. It was chaired by the Minister for Finance and Treasury and comprised senior officials from GOM representing the major PAS stakeholder groups. The Auditor General's Office was also a member of the Committee unlike during the initial design phase.

The Steering Committee was responsible for:

- Providing overall policy direction and guidelines and ensuring project activities were conducted in accordance with funding agreements;
- Reviewing the progress of project activities.

Conclusions

In accordance with the approved PAS design and implementation plans from 2007-08, the primary objectives of the SAP implementation endorsed by the GoM at that time were the:

- Preparation of consolidated government budgets and financial reports integrating at least 37 ministries and statutory bodies. The reports were to include:
  - Single entity and consolidated (across the target entities) statements of receipts and payments and comparison of budgeted and actual amounts in accordance with IPSAS and the MoFT finance circulars;
  - Single entity and consolidated statements of assets and liabilities as required by the MoFT financial circulars on mandatory accounting disclosures;
  - Consolidated and single entity balance sheets (on adoption of accruals-based accounting);
  - Pre-existing statutory financial reports such as monthly expenditure reports.
- Introduction of commitment accounting to public sector procurement practice;
- Integration of HR and payroll systems;
- Improvement in fixed asset and inventory reporting and management.

3.1.2 What did happen?

The Evidence of Financial Reports

The reason why full cash-basis accounting and reporting have not already been configured in SAP to automate the production of cash based financial statements remains unexplained by the MoFT. The law requiring cash-basis IPSAS came into effect in 2012 but the cash ledger, which is part of the General Ledger configuration of SAP and which would best support compliance with accounting law in the Maldives, has still not been activated.

The successful presentation of a consolidated balance sheet for all government entities connected to the SAP platform has to date not been possible due to incomplete sets of assets and liabilities data in their respective systems. In September 2015, the MoFT issued a circular to the reporting entities requesting that they reconcile their fixed asset records with those shown in the SAP fixed asset management module. This request indicates an intention to consolidate all fixed asset information in SAP but also an admission that such has not been achieved to date.

The MoFT has also admitted that external debt is still not part of the planned SAP data capture although it understands the potential benefits of transferring the relevant data from the existing public debt management software into the SAP Treasury and Risk module and plans to implement the transfer to SAP by the end of 2017.

In general, the view of the MoFT is that until the Republic of the Maldives adopts full accrual accounting the production of a whole of government balance sheet will not be

possible. The Ministry does assert, however, that the consolidation of both state budgets and receipts and payments information has already been achieved using SAP.

Actual versus Planned Implementation

According to the evidence supplied by the MoFT in response to the auditor's query, by mid-2015 only a subset of the proposed suite of SAP modules had been rolled out to user entities. The number of SAP modules actually implemented, according to the MOFT, is fewer than that envisaged by the implementation plan which was due to be completed by September 2010 (see *Table 3*).

The auditor received the following reply from the MoFT in response to the question: What is the actual roll out of SAP modules?

Table 3 - Actual Roll out of SAP modules by 2015

Module Name	% Completion	Auditor Remarks
Accounts Payable	99%	Accounts Payable is a sub module of Financial Accounting which incorporates General Ledger and Accounts Receivable
Human Capital Management	97%	
Materials Management	78%	
Business Intelligence	2%	
Project Systems	0%	

It is clear from this evidence that some modules were not fully implemented by the intended date. Further enquiries made to the MOFT revealed that:

- Consolidated budget information is collected and used by the Treasury via the Funds Management module held centrally;
- Commitment and inventory accounting will be live in 2016 through the full rollout of the Materials Management Module. This is at least six years later than originally planned;
- Integrated HR and payroll functionality – no information is currently available about this objective.

The delayed introduction of the Business Intelligence (BI) module would not be in itself an issue for the integrity of the SAP implementation if standard SAP reports meeting user requirements had been made available instead. However, based on the results of the user survey carried out by the auditor a sizeable minority of entities are dissatisfied with the reporting capability of SAP as configured.[9]

For example, the entities are still required to deliver monthly expenditure reports consisting of three-four pages to the Treasury but, at least in the case of the National Integrity Commission, SAP's powerful functionality has not been applied to produce these reports.

SAP is currently able to prepare certain reports yet is not utilised fully to prepare compliant financial statements, neither at an entity nor consolidated level. The MoFT informed the

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[9] A total of seven out of 18 respondents to the survey said that they did not use SAP software exclusively for their accounting and reporting needs because of a lack of reporting functionality. This number did not reflect fact that a further seven of the 18 respondents do not use SAP at all and this could be due in some measure to the lack of reporting functionality in place.

auditor that the BI module is capable of overcoming this problem and that implementation and user training in respect of this module are in progress.

Performance of the Implementing Consultant

The auditor has seen a letter dated September 2008 from the Financial Controller at the MoFT addressed to the implementing consultant and expressing concern that the design phase had taken much longer than the timeframe envisaged in the contract document and inception report. This letter suggested that contributory factors to the delay may have included:

- The inclusion of too many modules at one time. In particular, the implementation of Accounts Receivable, Asset & Inventory Management and Budget Preparation modules overstretched the Ministry's and user's technical resources;
- Unclear linkages between the user requirements and the proposed system design requiring more time than should have been necessary to check that the design was consistent with the client's requirements;
- Inexperienced consultant skills with insufficient expertise in the budgeting modules in particular;
- Frequent changes in consultants leading to time being lost to handover and familiarisation periods. More significantly, understanding reached during the design workshops vanished with the outgoing consultants;
- Insufficient average time spent by consultants during their visits resulting in some visits providing little tangible benefit, inadequate consultant numbers to provide rigorous analysis and produce quality documentation on all the modules and the prolonged absence of a resident project manager;
- Slow response to requested amendments or clarifications in the design blueprints leading to excessive delays.

In addition to the above, the MoFT also complained to the implementing consultant about the fact that knowledge transfer to enable GORM staff to maintain the SAP system into the future had largely not taken place as promised.

3.2 Is it technically possible to generate compliant financial statements and budget execution reports from SAP?

3.2.1 What should have happened?

As already stated, the procured version of SAP (ECC 6.0) could by now have been configured to support cash-basis accounting (CBA) in the system. According to the SAP Help Portal: "Cash-Basis Accounting is established by means of a separate cash ledger. This is a complete, balanced set of accounts required by and maintained for CBA. It realises expenses and revenue only at the time cash is paid or received. Typically, the only accounts posted to in CBA are cash and profit-and-loss accounts."[10] Thus, the use of CBA is ideal for the production of cash-based financial statements. It is also capable of working alongside accrual ledgers in SAP which enable the production of balance sheet information.

The auditor has received very little information from the MoFT about the progress of the rollout of the BI module but on the one occasion that financial statements for the Maldives Broadcasting Commission produced in BI were released to the auditor for review it was found that the numbers in the report did not agree with the underlying transactions in the General Ledger or the published financial statements.

For the financial year 2014, reporting entities were notified by year-end budget closure guidelines issued by the MoFT to halt expenditure commitments two months before the end of the year and to submit to the Ministry a list of unpaid bills as at 31st December. Thus they were given an opportunity to ensure that all cash settlements took place within the financial year 2014. It should be noted that this instruction was driven by fiscal management objectives rather than a desire on the part of the MoFT to finally see how cash accounting could be achieved in line with the 2012 amendment to the law.

3.2.2 What did happen?

No effort has been made by the MoFT since 2012, when cash-basis IPSAS became the accounting standard, to configure the cash ledger in the SAP systems of the reporting entities. In mitigation, it is important to point out that the implementing consultant confirmed that the SAP system was to be configured in 2009 to follow accrual accounting and no mention is made in the design blueprint of cash-basis accounting.

For the financial year 2014, a revised accounting instruction from the MoFT amounted to an endorsement of cash accounting in compliance with the Law on Public Finances 3/2006 (amended in 2012). The following is an extract from the instruction received by entities for the accounting year 2014.

Paying bills of 2014 and Previous Years

To make payments for the bills of goods and services received in 2014 or prior, the Ministry has included a budget for this in 2015. Therefore, to make such a payment the entity can park the details in the SAP system and send a payment request with the supporting documents (sample request letter format given in annex 1 and 2) and an e-mail the soft copy to the Ministry at (budget@financ.gov.mv and copy to pas@finance.gov.mv). All such bills should be posted in the SAP system by the end of 31st march 2015.

The above payments will be given budget if the below criteria are met:

1. *The entity should have received the goods or service before end of 31 December 2014*
2. *This should be an expenditure budgeted and approved by the parliament in the relevant year.*

The purpose of this part of the instruction was to enable the Ministry to identify 2014 transactions posted by the entities to the GL expenditure codes for reversal in 2014. The MoFT instruction continued:

To make payments for the bills of goods and services received in 2014 or prior, the data should be entered in the SAP system in the following manner.

Payment voucher (PV) number	It should be related to when the goods and services were received, therefore the PV number should start from the last PV number of that year
PV date	The date the PV is prepared
Posting Date	Date of posting to the SAP system
Document Date	Date of Invoice
GL assignment	PV number
GL text	Pending bills (YYYY) e.g. if it is an unpaid bill from the year 2014

Reporting entities were also told that if legitimate expenditure in the current year was not actually paid by 31st December then those amounts will be carried forward to the next year and a commensurate sum will be added to the following year's budget for that entity. They were instructed to reverse all posted but unpaid invoices (leaving only cash expenses for 2014 in the SAP system) and re-post and request payment of them in the next period.

In this way, the integrity of cash-based accounting could be maintained and actual expenditure could be properly matched with the entity's cash-based budget. The unpaid bills are shown as liabilities (amounts owed to suppliers) in the relevant 2014 financial statements with a corresponding receivable in the assets statement indicating that money is owed to the entity by the state budget (that same amount will be added to the new year's budget to cover the prior-year expenses paid in the current year).

Hits and Misses

For the above methodology to be reliable it should have a very low error rate and the size of any discrepancies should be immaterial. However, in the five cases reviewed by the audit team, the majority (80%) of entities could not apply the methodology reliably. The only "hit" was the Police Integrity Commission.

Hit

Parameter	Value
Year of reporting (status of audit):	2014 (unqualified)
Entity:	Police Integrity Commission
Value of unpaid bills at year end per the Vendor Line Item report of 2014 payments made in 2015	MVR 517,098.94
Value of liability in the year-end balance sheet	MVR 517,098.94
Difference	nil
Number of transactions	35

Conclusion: the value of expenditure postings reversed in 2014 and disclosed in the 2014 balance sheet as liabilities is the same as the amounts paid in the following year 2015. This results supports the view that the Vendor Line Item report can in theory be used to trace the expenditure transactions that need to be reversed in the 2014 GL and then re-posted in 2015 because they did not get paid by the end of 2014. However, the volume of transactions is low.

Misses

Parameter	Value
Year of reporting (status of audit):	2014 (qualified)
Entity:	Prosecutor General's Office
Value of unpaid bills at year end per the Vendor Line Item report of 2014 payments made in 2015	MVR 1,517,247
Value of liability in the year -end balance sheet	MVR 1,648,509
Difference	MVR 131, 262
Number of transactions	224

Conclusion: the value of expenditure postings reversed in 2014 and disclosed in the 2014 balance sheet as liabilities is not the same as the amounts paid in the following year, 2015. This result casts doubt on the feasibility of the suggested methodology as a means of extracting reliable reports of cash-based expenditure during the reporting year. The result also suggests that a higher volume of transactions complicates the essential reconciliation between the reversed and the reposted and paid items.

Parameter	Value
Year of reporting (status of audit):	2014 (qualified)
Entity:	Human Rights Commission
Value of unpaid bills at year end per the Vendor Line Item report of 2014 payments made in 2015	MVR 1,397,165
Value of liability in the year-end balance sheet	MVR 1,055,636
Difference	MVR (341,529)
Number of transactions	183

Conclusion: See above conclusion for the Prosecutor General's Office except that in this case more payments were made in 2015 than were provided for in the 2014 balance sheet. This suggests that too little expenditure was reversed from 2014 (i.e. 2014 expenditure was overstated in the Statement of Receipts and Payments).

Parameter	Value
Year of reporting (status of audit):	2014 (qualified)
Entity:	Electoral Commission
Value of unpaid bills at year end per the Vendor Line Item report of 2014 payments made in 2015	MVR 1,079,530
Value of liability in the year-end balance sheet	MVR 1,131,876
Difference	MVR 52,346
Number of transactions	103

Conclusion: This result also demonstrates the risk that 2014 expenditure was incorrectly stated in SAP for this entity. Fewer cash payments were made in 2015 than were provided for in the balance sheet at the end of 2014. This suggests that too much expenditure was reversed in 2014 (i.e. 2014 expenditure was understated in the Statement of Receipts and Payments).

Parameter	Value
Year of reporting (status of audit):	2014 (unqualified)
Entity:	Employment Tribunal
Value of unpaid bills at year end per the Vendor Line Item report of 2014 payments made in 2015	MVR185,012
Value of liability in the year-end balance sheet	MVR 131,262
Difference	MVR 10,994
Number of transactions	26

Conclusion: Despite the low number of transactions involved this entity did not manage to pay the same amount in 2015 as was deferred in the 2014 balance sheet. This is further evidence of the unreliability of the workaround method to restrict 2014 expenditure in SAP below the original budget.

In 2015, a new year-end instruction was issued by the MoFT indicating that the policy implied by Article 8 of the Law on Public Finances 3/2006 was to be reapplied. In other words, that there would be no return to cash basis accounting in that year. At the time of the current audit it is not clear, however, which practice will prevail after 2015 and attention is drawn to the fact that article 8 of the Act has not been repealed.

3.3 Is the prevailing financial reporting framework consistent with international best practice?

3.3.1 What should have happened?

Ideally, the prevailing law governing accounting in the Maldives would adopt a financial reporting framework consistent with international best practice. The preferred accounting framework should be clear in favouring either a compliance or a fair presentation approach. The law should also endorse, and not contradict, internationally-accepted standards of recognition and measurement of income/receipts expenditure/payments, assets and liabilities as well as provide for sufficient disclosure of information to satisfy the needs of the users of financial statements.

Beyond the question of whether the legally-prescribed accounting framework is fit for purpose, the degree of actual compliance with the relevant law should also be considered. Thus, if the law states that public sector entities should follow IPSAS or IFRS accounting standards then there should be clear evidence that such entities are doing so.

IPSASs are promulgated by the IPSASB under the auspices of the International Federation of Accountants (IFAC). IPSASB prepares accounting standards for both accrual-basis and cash-basis accounting. Cash-basis accounting means a basis of accounting that recognizes transactions and other events only when cash is received or paid. The cash-basis IPSAS prescribes the manner in which the general purpose financial statements are to be presented under the cash-basis of accounting. IPSAS has dealt with the cash-basis through the development of a single standard.

According to the cash-basis IPSAS, an entity should prepare and present general purpose financial statements which include the following components:

- The statement of cash receipts and payments, which recognizes all cash receipts, cash payments, and cash balances controlled by the entity and separately identifies payments made by third parties on behalf of the entity;
- Accounting policies and explanatory notes; and
- Comparison of the government's publicly available budget and actual amounts (budget execution statement), and explanations of differences between budget and actual.

The cash-basis IPSAS requires all accrual accounting information to be moved to the disclosures—the statement of assets and liabilities should not be presented as one of the primary financial statements, but as a note disclosure. Because of the hybrid nature (partly, partly accrual) of this statement, it is not in accordance with the cash-basis, a basis of accounting that recognizes transactions and other events only when cash is received or paid.

The optional second part of the IPSAS cash basis standard identifies additional accounting policies and disclosures that an entity is encouraged to adopt in order to enhance its financial accountability and the transparency of its financial statements. This second part also includes explanations of alternative methods of presenting certain information.

In an effort to force reporting entities to disclose a minimum amount of information about their debt exposure even while continuing to account for transactions on a cash basis, the IPSASB has also included additional disclosures about debt in the most recent version of the cash basis accounting standard.

When expressing an unmodified opinion on financial statements in accordance with the ISSAI 1700 (Forming an Opinion and Reporting on Financial Statements) the auditor may use one of the following phrases:

- The financial statements give a true and fair view of (or: present fairly), in all material respects, in accordance with [the applicable financial reporting framework]; or
- The financial statements are prepared, in all material respects, in accordance with [the applicable financial reporting framework].

Which one of these phrases the auditor should use depends on whether the accounting framework applied is based on the principles of fair presentation or compliance. An accounting framework is a fair presentation framework if it acknowledges explicitly that, to achieve fair presentation of the financial statements, it may be necessary for management to provide disclosures beyond those specifically required by the requirements in a standard (IPSAS 1, paragraph 27, 29) or to depart from a requirement in a standard (IPSAS 1, paragraph 31). Either one of these suffice for the framework to be a fair presentation framework.

What did happen?

The Law on Public Finances 3/2006 was originally passed in 2006 and amended in 2009. In April 2012 an important further amendment to Article 12 of the Act was made through a Public Finance Circular which stated that:

The financial statements of the public institutions, should be prepared and presented in accordance with "Financial Reporting under the cash basis of accounting standard" of the International Public Sector Accounting Standards (IPSAS) published by the International Federation of Accountants (IFAC).

The adoption of IPSAS cash accounting under the Law on Public Finances 3/2006 and its amendments presents no conceptual difficulty to entities and demands fewer disclosures compared to accruals IPSAS. A potential issue arises, however, with the comparison of the entity's publicly available budget and actual amounts in the financial statements. Recognising the time lag usually experienced in the public sector when making payments to suppliers (in particular where all payments are handled centrally by the Treasury) article 8 of the Law on Public Finances 3/2006 stipulates that:

"If an account for goods or services supplied in a financial year is presented for payment to the Minister within 30 working days after the end of that financial year, the Minister may approve the payment of that account from moneys appropriated in the budget for that financial year or from the Advance Fund …"

The impact of article 8 of the Law on Public Finances 3/2006 is to allow late cash payments to be compared to the budget from the previous financial year. The phrase underlined above indicates clearly that the budget expended in the 30 working day period relates to the year just ended and no other. This concession to practicality effectively defines the budget as accrual-based because expenditure which was incurred up to the end of each year (but not settled in cash until the following year) is allocated against the reporting year's budget.

Unfortunately, article 8 does not make clear into which period the post year-end cash payments should be made in SAP. However, it is understood that normal practice in SAP is to leave open the accounting ledgers of the year ending for an additional number of days in order to accommodate those payments. Thus, items posted (and therefore recognised as expenditure) are cleared in SAP (settled in cash) in the prior reporting year if the entity submits payment requests to Treasury within the 30-day period.

Moreover, during the review of several AGO audits, we saw no written instruction from the MoFT requiring entities to make the relevant payments in the new accounting year (i.e. on a strict cash basis). It is also understood that the MoFT dictates the timing of the physical year-end accounts closure procedure in SAP and that entities cannot override this central control.

If article 8 of the accounting law is implemented in the manner described above, then, by definition, annual expenditure cannot be recognised on a strict cash basis since some payments pertaining to the reporting year are made post year-end. However, article 12 explicitly requires that public sector entities recognise their expenses in accordance with the cash-basis IPSAS standard.

Thus, the prevailing law on accounting in the Maldivian public sector contains articles that are at best confusing and at worst potentially contradictory. If the MoFT were to instruct entities to follow strict cash-basis financial accounting and reporting at all times, then the different accounting bases for the financial statements and the budget could be reconciled by an accounting disclosure in line with IPSAS 24. However, neither is this instruction issued to entities nor is the above disclosure ever found in the agencies' financial reports.

3.4 Aside from the technical and compliance constraints, to what extent are the reporting entities using SAP to produce compliant statements?

3.4.1 What should have happened?

All entities are obliged to follow the Law on Public Finances 3/2006 and the instructions relating to it issued by the MoFT in the form of Finance Circulars. The status of the current law in respect of compliance with the financial accounting framework is discussed elsewhere in this report. However, regardless of how easy or difficult the law is to follow, the reporting entities have no choice but to try to comply. They also have to use SAP (or an alternative accounting system) in order to prepare their financial statements.

3.4.2 What did happen?

As part of our investigations we reviewed the results of 32 separate AGO audits of financial statements prepared by ministries and statutory bodies from the years between 2011 and 2014. More than 70% of the audit reports issued by the AGO in respect of these financial statements prepared in SAP contained qualifications or disclaimers.

From this review it is evident that many of the qualifications were due, in the opinion of the AGO, to the misapplication of the cash-basis of IPSAS, namely, that the entities were recognising expenditure according to the posting date, not the date of actual payment to the supplier. For 2014, the proportion of unqualified audit opinions rose substantially. According to our sample of audits reviewed for the years 2011 to 2014 inclusive, 71% of 2014 audit reports were unqualified by the AGO versus 0% in 2013, 33% in 2012 and 25% in 2011.

On the face of it, this outcome could be explained by the fact that the AGO found more 2014 financial statements compliant with IPSAS cash-basis (and therefore the accounting law) than before. One could also hypothesise that the reason for such compliance was that the end-of-year advice given to reporting entities by the MoFT for financial year 2014 was effective.

However, the evidence gathered by this audit, as elaborated elsewhere in this report, indicates that the method proposed by the MoFT to effectively prepare cash-basis financial statements in SAP did not produce the desired results in all but a small minority of cases. Given the need for reporting entities to receive effective technical advice (since they lack the in-house SAP expertise to develop their own solutions) the error rate of the prescribed methodology was too high (and 29% of sampled entities still received a qualified audit report for 2014 statements from the AGO) to suggest that it was reliable.

Reporting entities are still faced with the problem of reconciling articles of the Law on Public Finances 3/2006 which are mutually contradictory (see section 3.2.2). The MoFT's own advice to the reporting entities is that expenditure should normally be recognised at the posting date and that entities can post transactions back into the previous accounting year for a period of 30 days after year-end.

For the financial years 2011-2013 inclusive, the AGO qualified the majority of the sampled audit reports on the grounds that they did not follow cash-basis IPSAS. By definition, therefore, preparers of financial statements must have been adhering to accrual principles for those years. In so doing entities were able to comply with article 8 of the Law on Public Finances 3/2006 but not with the requirement in the same law (the amended article 12) to follow IPSAS cash-basis accounting. And for the latter "offence" caused by the law, rather than their own actions, they may well have received a qualified audit opinion.

Other reasons for the AGO's qualification of reporting entities' financial statements included:

- Non-disclosure of the basis of preparation of the financial statements;
- Variations between the General Ledger and the financial statements;
- Non-presentation of financial statements for audit;
- Non-presentation of supporting documentation presented to the auditors;
- Omission of material transactions.

If the last three reasons for audit qualification are fairly stated, then they can only have arisen due to a lack of accounting discipline at the reporting entities involved. However, with the exception of the failure to present accounts at all, these are less significant reasons why the AGO may qualify an entity's financial statements. The lack of compliance with the required basis of accounting is much more serious.

3.5 To what extent has the SAP implementation satisfied the needs of public sector reporting entities in producing compliant financial statements?

3.5.1 What should have happened?

While users of new, complex IT systems have a natural tendency to see the negative aspects of the implementation before acknowledging the benefits accruing, it is reasonable nevertheless to expect that, if the system really is useful to users, at least the majority of them, when questioned, will say that it is.

3.5.2 What did happen?

Our online survey was sent to all 36 reporting agencies required to use the SAP system. In all 18 entities (50%) replied. The results of the survey revealed that a majority of the reporting entities were aware of the intended purpose of the SAP implementation yet a large percentage (39%) of the respondents admitted to using another system such as Microsoft© Excel, off-the-shelf package or an internally generated system in order to produce IPSAS cash-basis financial statements.

Of the 18 respondents, reliance on the SAP platform for accounting and financial reporting needs was assessed as follows:

Use an accounting system other than SAP	39%
Use SAP in conjunction with another system or systems	37%
Only use SAP and no other system	24%

This result indicates that only 24% of the sample relies exclusively on SAP.

Where entities used SAP as their only accounting software the majority of them (61%) placed reliance on other systems at the same time. The main reasons for requiring additional help from other systems were:

- Delays in the MOFT executing users' data processing requests centrally e.g. to make payments to suppliers;
- Lack of report generating abilities in SAP;
- It is easier to use other manual systems including spread sheets and locally-maintained books of account;
- Lack of full control over transactions in the SAP system;
- Unreliability of data in SAP (e.g. discrepancies between books of account and the SAP).

Among the above-mentioned reasons the lack of report generation was a common theme. While information about the actual existence of useful SAP reports is sketchy, it is almost certainly the case that the implementing consultant's commitment to producing all

statutory financial statement and budget report formats in English using standard SAP reporting functionality, as well as providing the standard PAS dictionary of field names and terms in both English and the Dhivehi equivalents, has not been fulfilled.

Inadequate training was also reported by users as a factor contributing to their unwillingness to rely solely on SAP to prepare compliant financial statements. When asked whether they had received adequate training prior or subsequent to SAP implementation, 83% of the respondent entities said they had not.

3.6 What measures are being taken by the reporting entities to maintain sufficient human resources capacity to sustain effective SAP systems?

3.6.1 What should have happened?

Ideally, the reporting entities should have:

- experts in the accounting system (SAP) to generate compliant financial statements;
- accounting staff with sound understanding of the public accounting system in the Maldives;
- IT staff who can support the local IT infrastructure upon which SAP runs as well as understand and manage changing requirements;
- managers who understand and are committed to the achievement of required public accounting standards and who can mitigate the prevailing risks in their organization;
- a sufficient number of accounting staff with segregated duties for control purposes, to perform required tasks; and
- HR staff to help manage requirements.

Identifying Training Needs

The staff must be provided with the required training that would help them in generating compliant financial statements through the SAP system. An ideal organization will try to know, manage and support its training needs. HR heads can conduct a needs analysis by following the steps below:

- **Review employee's job description**: Start by thinking what work the employee should be doing. Identify the skills that they may need to do things well;
- **Meeting with employees**: Next step is to meet-one-on-one with each employee. Your goal here is to have an open talk about the kind of training and development that they think they need to work effectively and develop their career;
- **Observe employees at work**: next, keep an eye on how well your employees are doing with key tasks;
- **Gathering additional data**: If you approach data gathering in a sensitive way, you can learn a lot from others who work closely with the person you want to assess. These people may include past bosses, or even peers and co-workers or u can use information from past appraisals or feedback forms;
- **Analysing and preparing data**: Now, look closely at the information you gathered in the first four steps. What trends do you see? What skills did the employees say they needed? Are there any skills gaps? The goal here is to bring together the most relevant information, so that you can create a training plan for each employee.
- **Determining the action steps**: By now, you should have a good idea of the training and development that each employee needs. The last step is to decide what you're going to do to make it happen.

Recruitment Strategies that can be used

Recruiting high-quality talent is crucial to ensuring that the entities have the **expertise in** accounting, financial reporting and budgetary control to enable them to produce compliant financial statements. Recruiting entities need to be more selective in their choices since poor recruiting decisions can produce long-term negative effects such as high training and development costs to minimize the incidence of poor performance, and high staff turnover.

To avoid this, entities should have policies and strategies in place to ensure that they attract the best qualified pool of applicants. A clear and concise recruitment policy or code of conduct ensures a sound recruitment process. It specifies the objectives of recruitment and provides a framework for implementation of the recruitment programme. It may require organizational systems and procedures to fill the vacancies with the best qualified people.

Retention policies that can be adopted

Staff retention policies are important, on account of the rare and specific skills / experience needed; criticality of ongoing operations (PAS cannot be de-prioritised to wait for new staff to be trained); and the cost of training new staff.

The reporting entities must have the required resources and authority to resolve any HR problems that could impact the sustained operation of compliant SAP systems. Ideally, the reporting entities must have HR policies in place that assist them in retaining the qualified staff. The entities can use policies such as:

Offer competitive benefit packages that fit employees' needs

In addition to providing health insurance and retirement –saving plan, other perks such as flextime and the option of telecommuting, go a long way to show employees you are willing to accommodate their outside lives.

Use contests and incentives to help keep workers motivated and feeling rewarded

If executed correctly these kinds of programs can keep employees focused and excited about their jobs.

Promote from within whenever possible

Employees should be given a clear path of advancement. They will become frustrated and may stop trying if they see no clear future for themselves in the organisation.

Foster employee development

This could be training to learn a new job skill or tuition reimbursement to help further an employee's education.

Offer financial rewards

The organization should consider offering financial rewards for employees who meet performance goals and stay for a predetermined time period. It should also provide meaningful annual raises. If it can afford it, it should create a bonus structure where employees can earn an annual bonus if they meet pre-specified performance goals.

3.6.2 What did happen?

Training in SAP

In its final inception report the implementing consultant, Atos Origin, recommended that the MoFT should "develop a structured approach to training in order to ensure a continued supply of trained finance staff following the implementation of the PAS and to ensure the sustainability of the systems."[11]

The consultant further recommended that as part of the training strategy for SAP: "Following implementation and delivery of the initial project evaluation and investment

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[11] PAS Implementation Inception Report, Atos Origin (Singapore) Ltd, January 2008, Annex E – Training Strategy

workshop training, resources should be identified to roll out a training programme across government."[12]

It is not within the scope of this audit to evaluate in detail the development of training provision across the SAP user community, both during the initial implementation and as part of the ongoing support of the system. However, in talking to current users it is very clear that they feel that insufficient training and ongoing support have been provided. As stated above, when our online survey asked the entities whether they have received adequate training prior/subsequent to SAP implementation, 83% said no and only 17% said yes.

In addition to this survey, the auditors conducted detailed interviews with two reporting entities, the Police Integrity Commission (now part of the National Integrity Commission) and the Ministry of Education (MoE). At the MoE, staff who leave the organization are replaced with new joiners who are given on-the job training with the help of the existing staff. The MoE does not request the MOFT to provide training to the new staff. Nevertheless, some training can be given by the MoFT at one of its scheduled SAP training sessions.

The PIC depends heavily on the MoFT to train the newly recruited staff. As for the SAP trainings by the MoFT, PIC staff informed that SAP training was provided once. Mostly, the manuals, tutorials and other assistance is provided by the MoFT over phone. In the case of new staff, the HR officials highlighted that they have to wait a long time to get training from the MoFT. And at the date of interview the PIC also informed the auditor that there were two staff waiting for training from the MoFT, leading to delays in the work of the entity.

In addition, a grant was given by World Bank to the MoE included a component for staff development. But, as its HRMD committee has access to only a limited supply of training grants that are intended to cover the whole of the Civil Service, larger amounts of funding for capacity building have been difficult to come by. This has been a huge barrier to the MoE providing staff development opportunities and building a qualified workforce and motivate its staff.

Retaining Adequate SAP Skills

Based on the information collected during the interview sessions with the two sample reporting entities, it was observed that there is a common difficulty in retaining staff who are qualified and experienced in supporting SAP implementations. Individuals who are given training and become familiar with the SAP raise their value in the employment market and often leave the entity in favour of a higher paid job. Due to this, the entity faces a lot of challenges as they have to replace the old staff with totally new staff, who again has to be trained to do the work.

As per the HR heads of the Ministry of Education, the main concern of its employees is the low salary paid compared to the heavy workload. As the MoE is responsible for all the schools and educational institutes in Male' and Islands, the staff of the MoE work under a lot of pressure. Hence, employees are feeling they are under-paid. In two years, four staff out of 12 who worked with the SAP system have left the entity. Though the entity wants to increase the pay, due to budget constraints it is not possible. The MoE informed the auditor that its management has in the past proposed pay rises to the said staff at the time when its annual budget is prepared. However, such increments have been ruled out by the MoFT before the MOE's budget is sent to the parliament[13]. As a result, SAP-qualified staff tend to leave the entity for attractive offers from other entities in the private sector.

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[12] Ibid

[13] Non-independent institutions such as ministries have no authority in law to make discretionary awards above the standard pay scales established by the Civil Service Commission

In the case of the Police Integrity Commission, when the HR heads were asked about the turnover rate of SAP skilled staff, they said that the turnover rate is high and five trained staff left the entity during 2014 and 2015. As per their comments, the main reason for this is for career development as the organizational structure does not allow staff to get promotions. The way the organizational structure is setup, it does not allow the employees to be promoted even if they attain any better qualifications or performance better at their jobs. Another reason is that it is forced by Civil Service rules to adhere to pay scales which offer lower compensation compared to the independent public entities (such as the AGO) which have more discretion over staff pay or the private sector.

Institutional Barriers

It was observed in the interview with the HR head of PIC that policies and strategies are not developed by PIC for the recruitment of staff, performance measurement, and remuneration and that they follow the policies of the Civil Service.

3.7 What measures are being taken by the MOFT and reporting entities to enable the reporting entities to maintain effective SAP systems?

3.7.1 What should have happened?

Ideally, the reporting entities must be able to prepare compliant financial statements using SAP using available resources and in a timely manner. The IT professionals at MoFT and reporting entities must facilitate the timely preparation and presentation of compliant financial statements using SAP by providing a stable technical platform.

There must be clear documented guidelines (user manuals, technical documentation) on the preparation of compliant financial statements through SAP. These materials should be updated periodically and be made available to the reporting entities on demand. In addition, proper trainings and directions disseminated to aid the preparation of compliant financial statements using SAP should be provided as needed by the entities.

Any operational IT challenges faced during the use of SAP must be notified to MoFT and MoFT officials must handle and solve these issues promptly. Such issues must be logged for future reference. Furthermore, in order to maintain the SAP system at full operational capacity, such that it can always produce compliant reports on time, the MoFT has to make appropriate technical provision for the following areas of operational IT support:

IT Operations within the SAP environment

Being the authority in the implementation and maintenance of SAP, the MoFT must have proper IT operations with adequate guidelines for the day-to-day running of the IT infrastructure to support the needs of SAP system users. Properly managed IT operations make it possible to identify bottlenecks and plan for anticipated capacity changes (additional hardware, or network resources), measure performance to ensure it meets the agreed-upon needs of the business owners, and provides help desk and incident management support to the users of IT resources in SAP usage. Thus the following must be addressed:

IT Service Continuity Management

Essentially, the purpose of continuity management is to maintain the appropriate ongoing business continuity requirements which is accomplished by setting recovery time targets for the various IT components that support the business processes based on agreed-to needs and requirements. Additionally, continuity management includes periodically

reviewing and updating recovery times to ensure that they are kept aligned with Business Continuity Plans and business priorities.

Information Security Risk Management

The management of information security relates to managing security-related risks, taking action appropriately, and ensuring that information is available, usable, complete, and un-compromised when needed. It also relates to ensuring that only authorised users have access to the information and that it is protected when being transferred between destinations and trusted when it arrives.

A lot of information security risks may arise from the absence of proper structures, processes and policies, such as: misappropriation of assets, unauthorised disclosure of information, unauthorised access, and vulnerability to logical and physical attacks, disruption and information unavailability, misuse of information, noncompliance with personal data laws and regulations, failure to recover from disasters. There must be an IT security policy which defines organisational assets (data, equipment, business processes) that need protection and link to procedures, tools, and physical access control that protect such assets.

Capacity Management

The MoFT should ensure capacity management by managing the various services that support the operation of SAP in a manner that keeps up with the demands of the users. Optimising network throughput capacity, resource availability, storage optimisation and augmentation are part of capacity management. In order to manage capacity, the IT organisation needs to measure current conditions and needs to take action that facilitates providing users with additional capacity, for example by acquiring additional processing power when certain parameters are crossed (i.e. when computer utilisation is at 75% or greater for 60% of the work day). Additionally, for an IT organisation providing services to the business, capacity management would be effective when suitably qualified/trained IT organisation personnel are deployed, sufficient resources and appropriate tools are engaged to handle network monitoring and help desk functions, and the personnel engaged are proactively engaged in addressing bottlenecks while remaining responsive to business needs.

Problem and Incident Management

Incident management is the systems and practices consistently are records, analyses and resolves incidents and errors in a timely manner. Problem management aims to resolve issues through investigation and in-depth analysis of major or recurring incidents in order to identify the root cause. Once a problem has been identified and analysis of the root cause has been conducted, it becomes a known error or inefficiency, and a solution can be developed to address it and to prevent future occurrences of related incidents. A mechanism should be put in place for the detection of and documentation of conditions that could lead to the identification of an incident. The IT operations section should have documented procedures for detecting and recording abnormal conditions. A manual, computerised log of dedicated IT software may be used to record these conditions. Examples of incidents could include unauthorised user access or intrusion (security), network failures (operational), low functionality of software (service delivery) or lack of end user skills (training).

People and Resources

In an ideal situation sufficient resources are allocated to IT for meeting the needs of the organisation, according to agreed priorities and budget constraints. Furthermore, the human aspect should be respected by the policies, practices and IT decisions, which should

consider the current and future needs of process participants. Governance management should regularly assess whether or not resources are being used and prioritised as the business objectives demand.

3.7.2 What did happen?

IT Operations within the SAP environment

The MoFT is responsible for the implementation and maintenance of SAP at the reporting entities. The main tasks carried out by MoFT with regard to SAP at reporting entities include SAP installation, role creation/assignment and password setting/resetting. During the interviews with responsible IT managers it was gathered that MoFT does have certain documented guidelines to help with the maintenance of SAP which was provided by the SAP consultants during initial implementation.

IT Service Continuity Management

Currently the MoFT does not have a mechanism to measure the services provided by the IT department specifically in relation to SAP such as incident response times and lead times nor does the MoFT have a system of logging incidents as and when they arise.

Information Security Risk Management

The data is securely protected using a two tier firewall, first being NCIT and the second MoFT. The MoFT data centre is equipped with biometric fingerprint readers and only IT staff can access to our server room. In case of incidents of unauthorised physical or digital access there is no system to properly log them.

Capacity Management

The server management is currently managed by a team of nine employees in the IT division of the MoFT. There are 11 servers dedicated to SAP which was the initial setup during SAP implementation in 2008 and remains the same to date. There are routine snap shot backups to 3 par storage. The MoFT's offsite backup system is not functioning due to unavailability of space therefore the current set up as is proving inadequate for the current level of activities.

Problem and Incident Management

Incidents reported by the agencies regarding SAP are sent through an official SAP support email and dedicated help lines. Currently there is no separate database to record the reported incidents except for these emails.

People and Resources

Currently a team of nine employees are in the IT department of the MoFT. Information about the qualifications held and experience of this team was not disclosed to the auditor therefore the competencies of the SAP support team could not be objectively assessed. During interviews with staff, the MoFT reported that the technical documentation provided by the SAP consultants is extensively used for all matters regarding SAP technical support. However, this documentation was not shared with auditors.

4 RECOMMENDATIONS

4.1 The SAP implementation in the public sector to meet its objectives

We recommend that the MoFT develops a revised SAP implementation plan for the full roll-out of all the procured modules. The plan should cover the five-year period from 2016 to 2020 inclusive and should take into account the status of the current implementation compared to the original design for the system and the lessons learned to date. In addition to the implementation plan, the underlying SAP master plan (the vision for system's application in the Maldivian public sector) should be redrafted with an amended scope and timetable as required.

The development and execution of the revised master and implementation plans should be overseen by Minister of Finance himself or his delegated authority. The plans should be initially developed by experts in SAP with experience of implementing the system in a public sector environment where the accounting framework is based on IPSAS.

The master plan should foresee the development of the accounting framework in the Maldives from cash-basis to accruals-basis IPSAS over a reasonable timeframe, as well as the consolidation of the whole of government accounts, and the management of public sector budgets and debt in the SAP system, in accordance with an agreed schedule.

The Ministry should report on progress towards achieving the revised master and implementation plans for SAP in the public sector in its annual report to Parliament.

4.2 Compliant financial statements and budget execution reports from SAP

To facilitate the delivery in SAP of cash-based financial statements in compliance with the prevailing accounting framework, we recommend that the MoFT engages experts in SAP to specify how best to set up the system to prepare compliant financial statements. The main options to consider are to: i) continue with the development of report writing in the BI module or; ii) configure the financial accounting modules in SAP of all reporting entities to take advantage of the system's in-built cash-based accounting (CBA) functionality. In either case, before the chosen solution is rolled out, the options should be thoroughly tested.

This measure should be implemented with immediate effect so that none of the 2016 financial statements presented by reporting entities to the AGO for audit are subject to qualification on the grounds that they do not comply with IPSAS cash-basis rules.

4.3 Financial reporting in SAP to be consistent with international standards

We consider it necessary for the MoFT to initiate a joint review with the AGO of the wording of the Law on Public Finances 3/2006 and amendments in order to remove the scope for confusion and incorrect application.

The entities using SAP should be given by the MoFT clear, technically correct and detailed advice on a timely basis about how to ensure that their financial statements and disclosures, including the Schedule of Receipts and Payments and Statement of Comparison of Budget and Actual Amounts, are presented in accordance with the Public Finance Circular from April 2012 and its annex.

4.4 SAP to satisfy the needs of public sector reporting entities

We recommend that the Minister of Finance instructs his Ministry to conduct its own comprehensive survey of user perceptions of the SAP implementation in order to validate and, if appropriate, expand upon the findings of the survey carried out by the AGO in 2015. This would follow on from the user survey already conducted by the MoFT in 2014 and would fit in well with the Ministry's current plans to inaugurate frequent user forums.

Based on the findings of the MoFT survey, the authority delegated by the Minister to conduct the enquiry should prepare a report of actions to be taken by the Ministry or other agencies in order to support the key areas of user need (such as increased training and improved reporting functionality) to the extent that such actions will add overall value to the system by making its use more effective and efficient.

The report should ultimately be considered by the Minister for implementation. If the recommendations for action contained in the report are not implemented the Minister should publish the basis for his conclusions.

4.5 Maintaining HR capacity to sustain effective SAP systems

We recommend SAP user entities across the GoM to take all possible measures to retain qualified IT staff so as to ensure proper technical support of local users. This may include lobbying the Civil Service Commission of the Maldives to consider amendments to the Maldives Civil Service Regulation that would enable agencies relying on the SAP system to put forward proposals for consideration by the Pay Review Board about possible discretionary pay awards to key IT and functional staff where there is a risk that the agencies could otherwise lose essential SAP know how.

In addition, agencies should make maximum use of all available training budgets and grants to ensure that their staff are provided with adequate SAP-specific training and development opportunities. This may entail liaising with the MoFT or other donors, including the World Bank, to ensure that the agencies are considered on a timely basis for participation in SAP training courses organised periodically by the MoFT or to receive training grants from donors.

4.6 Technical support of the SAP systems

We recommend that the MoFT reviews its provision of documented guidelines given to users to date on the preparation of compliant financial statements through SAP. In addition, any operational IT challenges faced during the use of SAP must be logged for future reference.

Furthermore, in order to maintain the SAP system at full operational capacity, such that it can always produce compliant reports on time, the MoFT should keep detailed records of how it makes appropriate technical provision for IT Service Continuity Management Information Security Risk Management, Capacity Management Problem and Incident Management in accordance with the recommended international standards such as ISSAI 5310 (Information System Security Methodology) and the Control Objectives for Information and Related Technology (COBIT) endorsed by the IT Governance Institute.
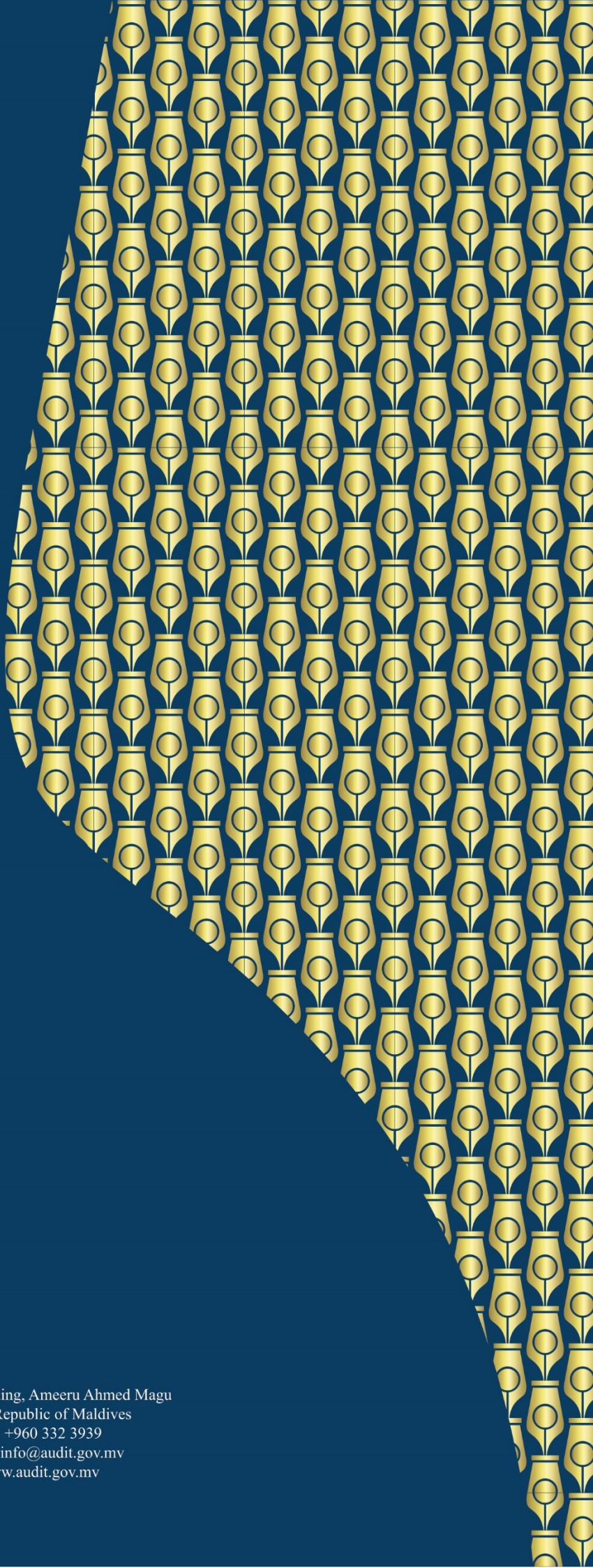
12th May 2016

Hassan Ziyath

Auditor General