State of M&E in Malawi:
a Report to put Monitoring and Evaluation in the Driving Seat of Malawi's Development Agenda

M&E Division,
Ministry of Finance, Economic Planning & Development
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Table of Contents

Acronyms

ADC	Area Development Committee
ADSL	Asymmetric Digital Subscriber Line
AIDS	Acquired Immune Deficiency Syndrome
AMP	Aid Management Platform
BSD	Berkeley Software Distribution - a Unix operating system
CABS	Common Approach to Budgetary Support
CBM	Community Based Monitoring
CEO	Chief Executive Officer
CHAM	Christian Health Association of Malawi
CISANET	Civil Society Agriculture Network
CONGOMA	Council for NGOs in Malawi
CSV	Comma Separated Values
DAD	Debt and Aid Management Division
DC	District Commissioner
DEAP	Development Effectiveness & Accountability Programme
DEMIS	District EMIS
DFID	Department for International Development (UK Aid)
DG	Development Gateway
DHIS	District Health Information System (software)
DHO	District Health Officer
DHS	Demographic & Health Survey
DMECC	District M&E Coordinating Committee
DMIS	Development Monitoring Information System
EGPAF	Elisabeth Glaser Paediatric AIDS Foundation
EMIS	Education Management Information System
E-PAF	Extraordinary PAF
EPD	Economic Planning & Development
EPOS	Health Management Firm, headquartered in Germany
ERP	Enterprise Resource Planning
FAO	Food and Agriculture Organisation (UN)
FISP	Farm Input Subsidy Programme
FROIP	Financial Reporting and Oversight Improvement Project
GIS	Geographic Information System
GIZ	Gesellschaft für Internationale Zusammenarbeit (German Federal Enterprise for International Cooperation)
GoM	Government of Malawi
HMIS	Health Management Information System
HSA	Health Surveillance Assistant
ID	Identity
IFMIS	Integrated Financial Management Information System
IHS	Integrated Household Survey
IMF	International Monetary Fund
IPAC	Independent Performance Assessment Committee
IPMIS	Integrated Performance Monitoring Information System
JCE	Junior Certificate of Education
JICA	Japan International Cooperation Agency
JPSME	Joint Programme for Support to M&E
LDF	Local Development Fund
LGFC	Local Government Finance Committee

M&E	Monitoring and Evaluation
MalTIS	Traffic Management Information System of Road Traffic Department
MANEB	Malawi National Examination Board
MASAF	Malawi Social Action Fund
MASDAP	Malawi Spatial Data Portal
MASEDA	Malawi Socio-Economic Database
MDA	Ministries and Departmental Agencies
MDG	Millennium Development Goal
MEJN	Malawi Economic Justice Network
MGDSII	Malawi Growth and Development Strategy (Phase II)
MHEN	Malawi Health Equity Network
MICS	Multiple Indicator Cluster Survey
MIS	Management Information System
MISO	Management Information System Officer
MISPA	Malawi Internet Service Providers Association
MIX	Malawi Internet Exchange
MNADA	Malawi National Data Archive
MoA	Ministry of Agriculture and Food Security
MoEST	Ministry of Education, Science and Technology
MoFEPD	Ministry of Finance and Economic Planning & Development
MoH	Ministry of Health
MoLGRD	Ministry of Local Government and Rural Development
MRDT	Malaria Rapid Diagnostic Test
MSCE	Malawi School Certificate of Education
MySQL	an open-source relational database management system
NAC	National AIDS Commission
NGO	Non-Governmental Organisation
NLGFC	National Local Government Finance Committee (or LGFC)
NMEMP	National M&E Master Plan
NSO	National Statistical Office
NSS	National Statistical System
ODI	Overseas Development Institute (London)
OECD	Organisation for Economic Cooperation & Development
OPA	Organisation Performance Agreement
OPC	Office of the President & Cabinet
OPD	Out-Patients Department
PAF	Performance Assessment Framework
PBB	Programme Based Budgeting
PC	Personal Computer
PEA	Primary Education Adviser
PED	Performance Enforcement Department
PETS	Public Expenditure Tracking Survey
PFM	Public Financial Management
PPPAI	Personnel, Payroll, Pensions, Loans Management
PS	Principal Secretary
PSIP	Public Sector Investment Programme
RBM	Results Based Monitoring/Management
SWG	Sector Working Group
T/A	Traditional Authority
TDC	Terradata Connector
TTC	Teacher Training College
UNDG	United Nations Development Group
UNDP	United Nations Development Programme

UNICEF	United Nations Children's Fund
UPS	Uninterrupted Power Supply or surge protector
VDC	Village Development Committee
VPN	Virtual Private Network
WMS	Welfare Monitoring Survey

Executive Summary

The Report sets the context of a culture of administrative and political patronage that is averse to evidence-based decision-making and has avoided a system based on performance. Where there has been interest in performance, it has been measured in terms of inputs and outputs, not on outcomes. There has been no appetite for results-based programming. There is little focus on identifying those with the poorest outcomes, drawing on disaggregated data, and little analysis of what works and of the relationship between investments/inputs and outcomes, with no basis for cost-benefit analysis and no evaluation of effectiveness of programmes. The lack of analysis relates to a general lack of demand for monitoring and evaluation, except in basic terms of ex-post surveys of MDG indicators. Transparency in data reporting is lacking as data is seen as administratively and politically dangerous and not for public consumption unless suitably "cleaned" and modified. The deliberate rejection of open access data has undermined any incentive to supply quality, timely data. There is minimal accountability to Parliamentary Committees and local authorities and none to communities. The Cashgate scandal is simply the worst result of this endemic culture of an elite that is afraid of being made accountable.

However, this gloomy picture fails to take account of examples of good practice and evidence-based policy, particularly evident in HIV& AIDS and in Health through its HMIS, although even in this sector there has been a policy failure to utilise the capacity of the DHIS2 software to produce automated reports from the data entered at facility level as is done in neighbouring countries such as Zimbabwe, Tanzania and Kenya. There are also good examples in some Districts, such as the good practice in Zomba where each department head is required to submit the monthly report through the District M&E Officer in order to have the data checked for accuracy before the next month's financial allocations are released. Community Based Monitoring, encouraged earlier by the M&E Division and by the Local Development Fund, has led to the Kalondolondo project, but its reports have not been integrated into the national M&E system and, through involvement of the media, have created resistance in some government quarters. Civil society sector networks are interested in quality of service delivery in their respective sectors, but do not carry out analysis, partly since data is not available to them.

The new government has shown commitment to Organisational Performance Agreements and annual assessments and to public sector reform that will create a new culture of accountability. New Parliamentary Committees are ready to receive reports and analysis and a review of Sector Working Groups relating to MGDS performance has suggested ways for these to become more effective, including through impact evaluations. Any use of external impact evaluation should be part of a national Evaluation Plan and include the requirement to build individual and institutional capacity for evaluations. Newly elected Councillors are demanding evidence of service delivery and outcomes in their Wards.

This all creates a window of opportunity for a revitalised M&E system in Malawi, where data would be generated at community and facility level, fed upwards using increasingly available IT connectivity, with mobile Apps and digitising the many existing manual registers in schools, health facilities, border crossings etc. Such availability of timely, quality data, if readily accessible across sectors to policy-

makers, research analysts and civil society as well as to communities, could kick-start effective demand for data that will not be politically or administratively blocked and such accessible real-time data would drive up performance. Community-based monitoring needs to be integrated into this process as part of a system of triangulation with management information systems and surveys, but it needs to move from its current NGO watchdog approach to one that truly empowers local communities.

The report recommends a needs-driven, technology-enabled solution, focusing on a one-stop system, drawing on all the current disparate sector and finance reporting systems – the Integrated Performance Monitoring System (IPMIS), drawing on an in-country adapted version of the open-source DHIS software, currently used by the Health MIS, and drawing on the model of the Development Division's PSIP, Public Sector investment Programme database. It proposes adoption of the general principles for the M&E system of independence, timeliness, quality, triangulation and accessibility and recommends in particular those of Integration, Digitisation, Disaggregation, Access, Triangulation & Analysis (ID DATA). It proposes an overall Vision for an M&E system for Malawi of "an integrated information system of web-based flow of quality data, disaggregated to reveal inequalities and drawing on front-line registers and community reports, generating automated reports openly accessible to central and sector ministries, Parliament, Local authorities, the media, academia, civil society and communities for analysis for policy and programme design, resourcing, implementation, monitoring and correction and evaluation of organisational performance".

While placing facilitation for an ambitious agenda under the M&E Division in MoFEPD, it recommends the establishment of a decision-making M&E National Coordinating Committee, chaired at PS level, of all key stakeholders, supported by an M&E Technical Working Group, which would approve and implement the more than 50 recommendations of the report and in time establish an M&E Policy as well as a Programme Evaluation Unit and a central M&E Fund. It would place M&E at the centre of the new MGDS and achieving the post-2015 agenda across all ministries and determine an agreed set of key indicators, appropriately disaggregated, as well as those that would be reported on through software generated automated reports and those that would be additionally monitored through community based monitoring. M&E Officers and Management Information System Officers (MISOs) should be established posts with training and career paths under Common Services arrangements and supported by their own Associations. A programme of evaluations would be determined as well as inter-sectoral analysis commissioned that could better establish priorities for and impact of investments. The IPMIS would be rolled out in an iterative process, with an initial pilot in the 4 Results Based Management Districts and then at the rate of 6 Districts per quarter. The report recommends a publicity strategy that raises the profile of M&E to a central position in Malawi's development agenda.

An Implementation Action Plan to deliver the Recommendations is attached as Annex 4 at the end of the report.

1. Introduction

1.1. Background

The state of M&E in Malawi must be understood in the context of the history and culture of Malawi public service. Malawi has a unique history created by a colonial power that sought to create an unskilled labour force for its interests in southern Africa. Its top-down administration was built on, over the following 30 years, by the post-colonial one-party state building a small elite to run the bureaucracy, seamlessly taking over from the small colonial bureaucracy. This built high levels of accountability upwards with none downwards to the community, except those of patron-client relations of enforced dependency. Many look back on those years as being a period of efficient administration with low levels of corruption – the civil service was tightly organised and focused, with job descriptions, induction courses, accountability and career development, leading to secure pensions on retirement. Such upward accountability was undermined by the introduction of multi-party democracy without any introduction of downward accountability mechanisms. There was no incentive for individual performance accountability within the small elite where roles could be easily reversed over time, although team work could be encouraged provided no-one showed their head above the parapet. Attempts a decade ago to introduce individual performance contracts, starting with the senior civil service, were unsuccessful.

Expansion of the public service and widening of opportunities opens possibilities for greater accountability. The introduction of Organisation Performance Agreements (OPA) is more in line with Malawian values and pre-1994 accountability upwards. The newly named Performance Enforcement Department (PED) in the Office of President & Cabinet (OPC) responsible for OPAs at a time of an incoming Government following the 2014 elections and the newly elected District Councillors, after over a decade without, introduce new political dynamics for evidence and accountability. The steady increase in corruption over the past 20 years, culminating in the recent "Cashgate" corruption scandal[1] that dwarfs earlier levels of corruption, both remove public respect for the elite and increase external and internal demands for accountability while raising the stakes for funding reporting mechanisms within broader accountability mechanisms. However, prolonged acceptance of poor quality in services, where the public expects minimal learning outcomes from the public primary schools and is accustomed to the world's highest levels of maternal mortality in a non-conflict country, is part of a culture of low expectations. A culture of client-patron relations at the inter-personal level is reflected at the macro-level in that of political patronage for purchase of electoral support, linking the political elite to the structure of local chiefs. In return, the public remains dependent on hand-outs and food relief in periods of low production or of vouchers for agricultural inputs, with no expectation of graduation. Inertia is reinforced by allowance incentives for participation that further undermines initiative and drive to transform society through achieving public goods. As a result, two major elements of the national budget remain input subsidies and allowances.

[1] "*A group of public servants exploited weaknesses in the control environment of the government's Integrated Financial Management Information System (IFMIS) to make fraudulent payments to several entities that had not provided any goods or services to the government. The authorities are implementing an Action Plan of remedial measures to prevent the recurrence of the fraud. Key elements of the action plan include strengthening security and management of IFMIS, a forensic audit, and identifying and prosecuting the perpetrators of the fraud".* Executive Summary of IMF Malawi Country Report No. 14/37, Feb 2014. See: http://www.imf.org/external/pubs/ft/scr/2014/cr1437.pdf accessed 23 Aug 2014.

Establishing a credible, effective and sustainable M&E system in Malawi is not simply a technical fix that can be transferred from another country and setting. It must be relevant to the constraints and opportunities that are present in 2014 in Malawi. Most Malawians remain sceptical that a sufficient alliance of interests and critical mass of reformers and incentives can be generated to create a demand for evidence and monitoring and evaluation that will sustain introduction of new or improved systems. The current vicious circle of poor supply of data and equally low demand for evidence and analysis of data has to be replaced by a virtuous circle of increasing demand for data and its analysis complemented by an improving supply and quality of data. Supply reflects demand, but break through will require intervention in both in order to achieve irreversible change and a new political culture. The demand for an effective M&E system is clear, but the demand for data itself will be more clearly articulated once the potential flow of real-time data becomes apparent.

1.2. Historical Background to M&E in Malawi

In Malawi, as in many developing countries of the world, constraints in human and financial resources, and a lag in adaptation of technologies that fully utilise management information systems (MIS) has meant poorer access to good data and statistics. On the basis that this quantitative statistical data is needed for effective monitoring and evaluation, we have reviewed how well the national M&E system in place is generating data and providing a flow of data that can pass basic quality tests in being reliable and timely and accessible.

In general, efficient Monitoring and Evaluation (M&E) is an essential tool for aiding a results-based management framework that is key for development effectiveness. There has been a history of reports on M&E in Malawi and recommendations of these have been fulfilled in part, but the overall system remains fragmented at the top and back-end and dysfunctional as a result of significant gaps in the flow of data from community and facility level at the front-end. A mass of data is collected in hand-written registers that fail to be included in the transfer to digital format.

For Malawi, the 2012 National M&E Master Plan (NMEMP) was prepared to inform the development, integration and implementation of M&E systems in the country. This is "owned" by the M&E Division of EPD in the Ministry of Finance and Economic Planning & Development (MoFEPD), but its almost 100 actions expected of the Secretariat in M&E Division over the period 2012-2016 have remained fragmented expectations. It introduced the commitment to "an integrated and user-friendly Development Monitoring Information System (DMIS) which would serve as a data and information warehouse, linking major data bases and information sources relevant to poverty monitoring ... and facilitate and organize the flow of information allowing its speedy use by analysts, economist, statisticians, decision makers and other stakeholders"[2]. The current report seeks to rationalise and prioritise key areas that M&E Division can facilitate to be delivered by a range of partners in central and sector ministries and in Local Government and civil society. Many of the actions in the M&E Masterplan still need to be done in order to achieve the recommendation in this report.

On the Statistics side, there is a National Statistical Office (NSO) Strategic Plan and the NSS (National Statistical System) Strategic Plan. There is an NSS

[2] Revised M&E Masterplan §4.4

Steering Committee, comprised of Directors of Planning in the agencies forming the NSS, which includes the MoFEPD Director of Planning Division. The NSS constitutes a sub-system of the overall, but broader, M&E system. The NMEMP creates a basis for achieving both accountability and gauging the effectiveness of the national development strategies. More precisely, the current M&E Master Plan focuses on the performance of the second Malawi Growth and Development Strategy (MGDS II), which is the all-encompassing development strategy in the country. The Master Plan seeks to generate systematic evidence regarding implementation of development policies and strategies in the country. However, efforts to strengthen and consolidate Monitoring and Evaluation as a key tool for accountability and evidence based planning and management appears to have had only limited results. The incentives to produce and the demand for quality M&E have been insufficient and more realism is required on the political economy context for data utilization.

Malawi has a breadth of well-developed policies and organisational strategic plans for all ministries, departments and parastatal agencies[3], as well as all Districts, which are each expected to be linked to the 5-year MGDS and enable assessments of performance against goals. In addition, each is expected to develop a related Organisational Performance Agreement (OPA) with indicators and annual and quarterly output targets. Some Districts and Ministries have their own Public Service Charters[4], against which the public can expect performance if they are well publicised. Civil Society, through sector networks[5] or at District level can work with communities to make known service charters and ensure that standards are met. The plethora of policies and plans is not reflected in implementation and monitoring.

At the central level, OPC demands information on performance and the EP&D Department in the MoFEPD expects the same, as does Treasury through the Output Based Budget and through its pilot Programme Based Budgeting Initiative. Neither Parliamentary Committees nor Cabinet are currently privy to OPA reports and to a large extent also MGDS Review Reports, which are reviewed by the meeting of Principal Secretaries. MGDSII is supposed to have quarterly reports, but at a recent review only 7 out of 42 government agencies, which were meant to report, did so. MGDSII expects regular reporting against a wide range of output and outcome indicators[6]. Many of these indicators, particularly those relating to outputs, are monitored from MIS administrative sources and some could be uploaded automatically from registers once digitised, including exports and imports; 9 health indicators reported annually, rather than those reported on every five years based on DHS and MICS; most education indicators; most nutrition, HIV & AIDS indicators; infrastructure construction and expenditure; irrigation and water & sanitation. These indicators could be better monitored if the necessary data was being automatically updated from the field by front-line workers through an integrated overall management information system. Macro-economic data, including inflation, exchange and interest rates, could equally be uploaded from the monitoring source.

[3] These strategic plans are prscribed, but the relaity is that many are either drafts or have not been developed. Some Districts have developed clear published District Development Plans, based on evidence from District profiles and the District Databank in those Districts where these still exist. Mchinji is developing a District M&E Framework that will be agreed across sectors with the Planning Department so that the District Development Plan and programmes can be monitored effectively against agreed indicators and targets.

[4] Development and publication of District Public Service Charters have been dependent on support from GIZ and Irish Aid. Without that technical support they have not been developed, as is the case in Mchinji for example.

[5] e.g. CISANET (Agriculture); MHEN (Health); CSEC (Education); MEJN (Budget and Accounts).

[6] See e.g. MGDSII 2013 Annual Review Report

The election of Ward Councillors at the local level presents an opportunity for greater accountability downwards, provided mechanisms can be strengthened to permit community-service provider interfaces. These newly elected Councillors have been frequenting District Offices seeking District reports and situation analyses. It is clear that this is the level where evidence is most in demand.

Sector Working Groups (SWG's), including technical staff from relevant sector ministries, development partners and civil society, as well as the private sector, are critical to analysing and evaluating performance and outcomes and in influencing planning, but only a few of the current 16 SWG's are currently functional. While development partners commission evaluations of programmes that they support and these contribute to SWG reviews, the government has not been able to commission independent evaluations of its programmes from its own budget. There is a need for donors to support Government in developing and implementing an Evaluation Plan that would determine a schedule of evaluations covering all sectors over time, which would be independent of implementing agencies. All independent evaluations should be within a national Evaluation Plan and require an element of individual and institutional capacity building for evaluation.

Despite progress, after more than eight years of concerted efforts to develop national M&E systems, there are concerns about the overall effectiveness of M&E at all levels. Support and appreciation for M&E activities differ between sectors and districts, and capacities for conducting M&E seem different in different districts and sectors. The M&E budget allocation is small and lacks vehicles and personnel. Lacking an M&E fund at central level, the system is largely dependent on funds for M&E in sector ministries, although these could be pooled and made accountable to the District M&E Coordination Committees. After the ending of the multi-donor JPSME programme, DEAP, which is a joint UN programme administered by the UNDP and with a sizable contribution from the EU, has been supporting the M&E Division. In addition, UNICEF has also contributed support for M&E in 7 Districts each year against a budget developed by the M&E Officer, providing a desktop computer, UPS power supply/battery, printer and desk/chair, and then provided support in subsequent years to organise DMECC meetings. Multi-donor funding for a single M&E Fund, to support central coordination functions, could assist in creating integrated, rather than currently fragmented, M&E systems, although the sector systems would still require funding for their internal strengthening.

It remains a challenge to generate and synchronize data and link all systems and databases currently in use in government. There are concerns about data quality and a perceived low utilization of M&E products for evidence based decision-making. Evaluation is an essential component of the RBM cycle, but the level of investment in the evaluation function so far has been insufficient and is totally lacking in most ministries. A recent Study on the Demand and Supply of Evaluation in Malawi funded by DFID brings to the fore the importance of shaping supply to fit with capabilities within the demand space and the importance of enhanced coordination in government and institutional development for evaluations within the wider society. There are potentially substantial benefits to be gained by improving the linkages and collaboration between M&E and statistics. There is however little knowledge of the respective roles of M&E and

statistics and how the two can complement each other (see below under Section 8.1).

1.3. Monitoring and Evaluation defined

Operational definition of Monitoring and Evaluation:

> The UN Evaluation Group has defined evaluation in the following way: "An assessment, as systematic and impartial as possible, of an activity, project, programme, strategy, policy, topic, theme, sector, operational area, institutional performance, etc. It focuses on expected and achieved accomplishments, examining the results chain, processes, contextual actors of causality, in order to understand achievements or the lack thereof. It aims at determining the relevance, impact, effectiveness and sustainability of the interventions".
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> The OECD (2002) defines monitoring and evaluation as follows: *Monitoring* is a continuing function that uses the systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds (p. 27).
> *Evaluation* is the systematic and objective assessment of an ongoing or completed project, program, or policy, including its design, implementation, and results. The aim is to determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact, and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and donors (p. 21).

While monitoring is essentially a management function and internal to the implementation of a programme or project, evaluation is independent and external. Results Based Management (RBM) needs external validation of results reported in order to be credible (UNDG Handbook on RBM).

1.4. Objectives of the assignment

The overall objective of the assignment was to provide recommendations to assist Government to strengthen the M&E system and deliver the NSS in preparation for the implementation of the post-2015 development agenda in Malawi. DEAP brought together to guide this consultancy an ad hoc short-term M&E Reference Group that included MEPD, NSO, MoLGRD, UNDP, UNICEF, Norway, DFID, WB, Ministry of Gender, Lilongwe District Council, MEJN and the Centre for Social Research at the University of Malawi.

The study has examined policies, practices, capacities, institutional mandates, coordination arrangements and information management facilities.

> • If you do not measure results, you cannot tell success from failure.
> • If you cannot see success, you cannot reward it.
> • If you cannot reward success, you are probably rewarding failure.
> • If you cannot see success, you cannot learn from it.
> • If you cannot recognize failure, you cannot correct it.
> • If you can demonstrate results, you can win public support.
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> Source: Adapted from Osborne & Gaebler 1992.

1.5. Approach to Assignment

Under the leadership of the M&E Division in MoFEPD and with support from DEAP, the Consultancy, under ACTS Consultancy Ltd, brought together a strong team with international experience and deep knowledge of Malawi and its systems: Dr Dennis Pain (Team Leader), a former Deputy Head of DFID in Malawi with nearly 30 years' international experience mostly in Africa; Mr Murphy Kajumi, international consultancy and evaluations in Africa and the Caribbean, and formerly working on the Joint Programme Support for M&E Systems in Malawi through the M&E Division in EPD; Mr Tendayi Kureya, CEO of Development Data, a Zimbabwe based international statistics consultancy working in a number of African countries; and Mr Tony Longwe, a Malawi based IT consultant with bilateral donor experience of data systems and storage.

The Consultancy assessed existing M&E systems, based on selected sector Ministries/Agencies and Districts[7], and the various M&E coordination entities and development partners. It was clear that use of national M&E systems, except to a large extent in Health, falls far short of the Busan-Accra-Paris aid effectiveness agreements. Donors support sector M&E systems to the extent that it will deliver the data that they require to monitor their own investments, often resulting in parallel systems. The overall approach taken was qualitative and participatory and did not seek to be representative of all M&E units and practices, but, through open-ended questions, to draw a picture that all stakeholders can recognise as accurate. Overall, the Consultancy undertook:

- Document Review of a select number of documents (listed below) to gain insights into the current M&E architecture in the country, coordination and implementation arrangements;
- Individual Interviews/consultations (see list below of people met);
- Group Discussions, particularly in the Districts, with M&E focal points and specialists, the UN and the M&E Reference Group. Once respondents understood that their performance was not being assessed, there were frank discussions on the M&E systems in Malawi that have been working, but which have not consistently been applied, and the factors undermining activities to monitor programmes and performance;
- As part of institutional analysis, identification of both formal and informal champions of the system, and find ways to incentivize structures that are operating sub-optimally;
- Review of collection, validity, flow, aggregation and storage of data, including potential for real-time data flows and use of mobile connectivity that can lead to improved performance management and use of on-line data management and storage systems.
- Assessment of data analysis & utilization, including monitoring progress in achieving the MGDS and international targets (MDGs and post-2015 agenda) and capabilities for ongoing production of Public Expenditure Tracking (PETS[8]) reports;

[7] For a range of insights, these included the large devolved Ministries of Agriculture and of Water & Irrigation, of Health and of Education, with their own data flow systems; OPC, MoF Budget Division, EPD M&E Division; LDF and LGFC; Ministry of Local Government and Rural Development; the Districts of Zomba, Balaka, Dedza, Mchinji and Rumphi; Development Partners of UNDP, UNICEF, FAO, World Bank and DFID; NSO, Centre for Social Research and Norwegian Statistics; Kalondolondo and implementing partners and some of the national sector networks of civl society and the Chair of the Health Parliamentary Committee.

[8] The PETS consists of randomized surveys that track the flow of resources through the administrative system in order to determine how much of the originally allocated resources reach each level. The difference between PETS and a conventional audit is the use of statistics and averages. Rather than physically visiting schools to determine how much funds it received, a PETS selects a statistically representative sample of schools in the country and relies on findings from these schools for its analysis. PETS may be useful for locating and quantifying political and bureaucratic capture, leakage of funds, and problems in the deployment of human and in-kind resources such as staff, textbooks, and drugs. See:

- Validation workshop, held on 9th October, enabling comment on the issues from the situation analysis, as well as the recommendations and proposed Action Plan, providing buy-in from key stakeholders within and beyond the M&E Reference Group overseeing the Consultancy.

The State of M&E study was met with strong interest and positive engagement at all levels. The M&E Reference Group meeting was well attended and additional people joined due to their interest once engaged in the study. The momentum generated shows that there is an appetite among a wide range of stakeholders, from central ministries down to Districts, for taking the role of M&E seriously in order to address current weaknesses in the development agenda. This augurs well for taking the recommendations forward and suggests that an M&E National Coordinating Committee, with decision-making powers, would be welcomed and supported.

2. Context

Malawi is heavily aid dependent, but the nature of donor-government relations started to change significantly as key development partners, for domestic and bilateral reasons, are withdrawing from general budget support. The recently identified "Cashgate" corruption scandal reinforced the move from programme to project support and withdrawal of donors from sector pooled funding, apart from some Trust Funds managed through the World Bank. Some development partners are experimenting with delivering directly to district hospitals and increasing use of NGOs, as donors seek modalities that avoid using government systems. At the same time, donor domestic requirements of accountability increased demand for separate M&E systems that could assure financial due diligence at a time when Malawi's own checks, with a backlog of national audits, and balances, with weak Parliamentary oversight[9], were proving inadequate for the task. This is totally against Paris-Accra-Busan aid effectiveness agenda as an immediate response to domestic pressures on donors, compounded by Cashgate, but it is retrogressive and undermines future investments in a transparent and accountable system of monitoring. To address these systemic weaknesses there have been a variety of development partner support initiatives, including the PFM Multi-Donor Trust Fund (managed through the World Bank) and other support from African Development Bank, UN, JICA and GIZ. Specifically, the Multi Donor Trust Fund funded the FROIP Project (Financial Reporting and Oversight Improvement Project) for which implementation started in 2013. However, meanwhile, development partners have significantly withdrawn from earlier strong positions in line with the Paris-Accra-Busan Aid Effectiveness principles, including use of government M&E systems.

The CABS (Common Approach to Budgetary Support) and its agreed Performance Assessment Framework (PAF) with a range of Public Financial Management indicators has been overtaken by an E-PAF (Extraordinary PAF) and the *Malawi Government Action Plan to Address Weaknesses in Public Financial Management* and the IMF technical assistance generated

http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPUBLICSECTORANDGOVERNANCE/0,,contentMDK:23265534~pagePK:148956~piPK:216618~theSitePK:286305,00.html. While Public Expenditure Reviews involve government input and participtipn, they are carried out by external teams under the World Bank, using data from government sources.

[9] Parliament used to receive development partner support through the office of the Clerk to Parliament that enabled Parliamentary Committees to meet. It appears now that only the four constitutionally established committes of Public Accounts, Budget & Finance, Legal and Appointments are supported and funcioning effectively, while others are treated as having no mandate to call sectors to account and are not funded. This significantly weakens the "long route" of public accountability of the Executive.

implementation strategy for PFM Reform over the coming 2-3 years. There has been an Irish Government funded consultancy report seeking ways to bring all these actions together. Ministry of Finance developed a comprehensive PFM action plan in order to integrate into a single framework previous Actions Plans and recommendations of previous reports and ensure a shared vision and one plan for improving the PFM systems. The new plan is still a draft but it is worth noticing that ensuring high value for money and efficient service delivery are distinct objectives along with maintaining fiscal discipline and strategic allocation of resources. Public Sector Reform has also been given fresh impetus by the new government's 6-month task-oriented mandate to the Public Service Commission linked to the Office of the President & Cabinet (OPC).

Malawi has well developed approaches to developing policy through consultations, ministry task forces and finally Cabinet Committees and approval. The Planning Directorate in OPC assists this process. This is intended to lead to an Implementation Monitoring & Evaluation System as part of the MGDS 2011-16 and Vision 2020, enabling sectoral policies to be reviewed and updated every 5 years, but Cabinet has failed to seek the evidence with which to monitor policies. The Auditor General's office wants to carry out annual "performance audits", but so far has only carried out financial audits. Two key policy areas, which are monitored, are food security, although not backed by evidence on the efficiency or the effectiveness of this single highest budget item, and HIV prevalence, which has fallen from 15% to 10% with the revised policy now targeting less than 10%. Public Expenditure Reviews, produced by academics funded by the World Bank, feed into the Parliamentary Committees, but these do not commission their own data analysis. Malawi needs a central Management Information System that will free OPC regarding the OPAs, EPD regarding the development budget and MoF regarding its Programme Based Budgeting (PBB) from each seeking similar information from sectors. OPC seeks to recognise the most improving ministries against seven criteria, of which the last is the existence of "ground-truthing" through field verification, which is where the evidence is least credible with lack of input from community level. Effective community-led reports and analysis available on IPMIS and validated for credibility by NSO for its statistical reliability and by an independent triangulation body would remove the need for OPC to seek its own field validation of organizational performance. Both OPAs and programme progress reports require electronic based recording and the capability to link together information and set this against budgets and disbursements. Although after the election in 2009, the government started asking for monthly reports, this was not followed through.

The new Government, elected in May 2014, has indicated early resolve to support Public Sector Reform and increase accountability and evidence-based policy making and a culture of performance, supported by the newly named Performance Enforcement Department under a Director at PS level within OPC, which, with a small staff of 9 officers and 6 support staff, hopes to lead on building a culture of accountability and transparency. However, as yet the Organisational Performance Agreement (OPA) reports on ministry and agency performance, after assessment by the Independent Performance Assessment Committee (IPAC), only reach the level of the meeting of Principal Secretaries (PS) and not the level of Cabinet nor to Parliament. The Public Sector Reform Unit in OPC would like to see Public Service Charters in every Ministry and every District and to commission satisfaction surveys by independent consultants and use of Scorecards. Currently each ministry is assessed against its achievement of

targets, with quarterly OPA reports being prepared by their Planning Departments against their annual work plans, submitted to the PS and discussed with the Management Team before being finalised for submission to the OPC.

Malawi is party to a number of global trends, such as Results Based Management (RBM) and introduction of Programme Based Budgeting (PBB) being piloted in 6 Ministries/Agencies (Health, Education, Agriculture and Finance, Planning & NAO) and the shift from outputs to outcomes in the post-2015 agenda, where Malawi is involved in its M&E development. The results based management approach is embraced in a new Joint GoM/UN Programme on Strengthening Institutional Capacity for Development Effectiveness and Accountability (DEAP) (2013-2016). Key strategic areas of support include: institutionalizing Results-Based Management practices in the public sector and support to strengthening the M&E system; harmonization and alignment of development planning and budgeting tools to support implementation of national development priorities; and strengthened capacity for development assistance management. With support from DEAP plans are already underway for developing in-country capacity for RBM and for piloting programme based budgeting in selected ministries and departments. RBM, PBB and outcome focused post-2015 agenda all raise new questions regarding indicators and M&E and the capacity of the system to produce the data required in a credible and timely manner. The recognition of weaknesses in the M&E system has led to DEAP support for this consultancy on the State of M&E in Malawi.

Internally, Malawi has been moving towards devolution, with a number of devolved ministries, including Health and Education, and a devolved budget allocation system under the National Local Government Finance Committee (NLGFC) formula and newly elected Councillors in May 2014.

Current donor appetite, reflected in Government structures at the central level, is for enhancing project and programme M&E, which is important, but short-term and sustains the fragmented nature of the M&E system in Malawi. Without losing a focus on projects and programmes, our analysis emphasised the potential for investing now in the necessary elements for a long-term system of linked administrative procedures that collect, record and integrate sector information that is stored in an accessible register which can create statistics that complement survey data collected on a regular planned basis by the NSO. There is also need for NSO to develop a rational plan of surveys that avoids duplication and too many heavy surveys in favour of a range of predictable planned surveys. These should serve the purpose of regular reliable statistics on trends and which will not be open to diversion due to development partner funding for NSO that primarily serves donor purposes.

The findings from a 2011 study by ODI on the DFID-funded Community Based Monitoring Programme, now Kalondolondo, found that the programme's theory of change "at times does not reflect some of the realities of the context in Malawi. In particular, the assumed link between citizen empowerment and improved service delivery does not seem to reflect well the realities of incentives and power dynamics at the local level, where service delivery remains significantly shaped by a range of patronage relationships and by the centrality of the Presidency. In this context, the incentives of service providers can be much more strongly focused on responding to demands from the centre than from citizens, even

where information on service gaps is available"[10]. It concluded that one of two key strengths of the scorecards approach adopted by the programme was that "scorecards appear to work best where they facilitate collaborative spaces or forms of collective problem solving by actors across the supply and demand side. The provision of information is one part of this, but more important is the process for identifying who the key stakeholders are and bringing them together to devise joint action plans to tackle service delivery problems (and to follow up on these plans)". It notes that one of the pre-conditions for expansion of the community based monitoring programme to new areas is for "local leadership supportive of the programme (either from district officials and/or traditional communities) as well as communities' own capacity for self-help and the capacity of local implementing partners to work in politically savvy ways. But going to scale will also require working more at systemic and national levels".

3. SWOT Analysis of M&E in the Malawi Public Sector

The following table (Table 1) summarizes a number of strengths, weaknesses, opportunities and threats observed for the M&E systems in the public sector in Malawi. Each of the elements identified is summarized below.

Table 1: SWOT of M&E in Malawi Public Sector

Strengths	**Weaknesses**
• M&E structure linked to MoFEPD • Statistical System structure in place • Statistics generation based on Act (statistics Act 2013) • District M&E Officers deployed and District M&E coordination committees • Established and respected OPA system • Existence of an M&E Master Plan and MGDS results framework	• Limited structures for utilization • Understaffing • No M&E policy • Absence of sector M&E frameworks in some ministries • Lack of agreed manageable set of core indicators – MGDS results framework has too many and too little focus on results • Absence of consolidated databases • Limited mechanisms for community feedback on service delivery • Lack of clear leadership from a decision-making body with mandate to enforce M&E compliance across sectors in line with MGDS
Opportunities	**Threats**
• Fresh Government interest on accountability • Revealed Public Finance Management weaknesses • Willing development partners to improve	• Weak legal framework for access to information • Patronage system of relationships • Low demand for accountability and quality performance information

[10] Wild & Harris, ODI 2006 page 4-5.

M&E • Existence of Sector Working Groups	• Unfunded mandates

3.1. Strengths

The following are observed strengths in the public sector M&E systems:

- *Existence of an M&E Master Plan and MGDS results framework*. Despite the internal weaknesses, these documents define information requirements, as well as expected information and roles for the different public sector agencies related to M&E in the country. The implication is that these documents need to be improved in order to consolidate gains on this strength.

- *Integration of Institutional Structure for M&E and Statistics:* M&E functions in all Ministries and Departments are located within the Planning Department at Ministry level and in the Planning Section/Unit at Departmental level. The planning units are staffed by the economics and statistics common service of the MoFED. This ensures the closest possible integration of M&E and Planning functions, and at least in principle it should encourage uniformity of M&E methodology.

- *District structure for M&E is in place*, alongside a District M&E Coordination Committee. Despite limited effectiveness due to funding limitations, this is a clear intention of instituting an M&E coordination structure at the local level.

- *Organizational Performance Assessment framework* is in place and is consistently being used by Ministries and Departmental Agencies (MDAs) to report performance against agreed performance targets to the OPC's Performance Enforcement Department. This is something that needs to be retained, but it requires increased focus on the impact of the development agenda on changing lives for poor people and creating sustainable inclusive economic growth.

3.2. Weaknesses

The following are some of the identified weaknesses related to M&E in the public sector:

- *Limited structures for utilization*. There appear to be limited structures for utilization of M&E results in the public sector. There are too many indicators to focus attention on key trends and too little focus on results. There is a lack of consolidated databases where policy discussion can focus attention on

delivering impact. While the OPAs framework provides an opportunity for using M&E information, it remains inward looking. It is not clear if sanctions for non-performance by MDAs are effected to improve performance. Deliberate efforts focusing on evaluation of key programmes for learning purposes, as well as deliberate learning forums and inter-sectoral analysis of programme impacts, may assist in improving utilization of M&E results in the public sector.

- *Understaffing of Planning Units:* understaffing of planning units responsible for M&E roles in the public sector means that functions can be carried out only to a limited extent. This obviously implies a weak capacity for concerned sector departments, and by extension the public sector given that most of the departments are understaffed when compared to the total establishments. Filling the vacant positions may need to receive priority attention if planning units across the public sector will be able to effectively fulfil their M&E roles.

- *Lack of M&E policy.* The absence of an M&E policy to define standards and expected actions by public sector agencies implies that M&E is loosely applied, with varying standards applied across agencies. This implies the need to strengthen the policy environments for M&E in the country by preparing a policy to guide M&E, as well as improve the M&E Master Plan to effectively operationalize the policy. The lack of an M&E Policy reflects the lack of a single entity with decision-making powers that could enforce compliance with the requirements for M&E of the MGDS and indeed development generally. This reflects the patronage culture of the administration and politics that militates against evidence-based decision-making. It would require an M&E National Coordinating Committee, chaired at PS level, involving high level policy stakeholders from government at PS level, including the Chair of OPC's IPAC and the Commissioner of NSO, with possibly single representatives of development partners, academia and civil society and even one representative from District level, for transparency and enhanced collaboration, to effect the necessary change in mind-set and the interests that currently undermine the flow of robust evidence. However, the priority for such an M&E National Coordinating Committee should not be on developing an M&E Policy but on delivering the Action Plan on time – see Annex 4. Malawi has a tradition of analytical reports leading to development of a Policy and no implementation or action to follow.

- *Absence of sector M&E frameworks in some ministries*. Many Ministries lack an M&E framework that links their activities, outputs and outcomes to national priorities and monitors progress accordingly. While M&E was reported to occur in each of the sector ministries and departments, some lack M&E frameworks to guide the conduct of M&E. Most only rely on lists of indicators without a tight framework linking sector activities to key performance milestones. At district level, these frameworks do not exist, with individual officers in some

districts taking the initiative to develop district specific frameworks aligned with district development plans. Ensuring that each sector ministry and department has an M&E framework linked to specific sector objectives, and ultimately, the national development strategies would ensure consistency in public sector M&E.

- *Limited mechanisms for community feedback on service delivery.* Although the M&E Master plan expects implementation of methods to generate feedback through community based M&E, the mechanisms are weak. There has not been a consistent application of methods to generate feedback. This has come mainly from CSOs such as MHEN and the Kalondolondo service delivery assessments. However, it is not clear whether evidence from the CSO initiatives is used for learning and generating responsiveness from public sector agencies. Kalondolondo has taken itself outside the national M&E system and Government is no longer represented on its Board. It does not directly empower communities to monitor services themselves and remains a largely extractive evidence gathering approach. Communities lack ICT awareness, which E-Government has set as an objective to correct. Strengthening partnership between government and CSOs and between CSOs and communities for community level M&E may assist in improving citizen feedback on service delivery.

- *Lack of agreed manageable set of core indicators*. An MGDS results handbook, detailing results and indicators, currently forms the information requirements for the National Development Strategy Monitoring. However, the listing of indicators appears too long as to render it unmanageable, and in need of review in order to streamline it and prioritize a core set that can be tracked. In addition, some of the indicators require reviewing as they appear weak and not sufficient (e.g. some are process or output rather than results or outcome indicators) to facilitate results monitoring of the national development strategy.

3.3. Opportunities

The following are opportunities that if harnessed may support the creation and sustenance of an effective public sector M&E system in the country:

- *Fresh Government interest on accountability*. With a new Government in place, there is fresh interest in improving accountability and performance in the public sector. This is an opportunity for taking measures to strengthen M&E systems to support the implied demand for quality information to aid accountability and performance, as well as meeting the current demand from newly elected district councilors for evidence of performance and gaps in services and equity in outcomes. The demand for reliable data for assessment and evaluation of organizations in delivering against their Organizational

Performance Agreements (OPAs) is strong. The political economy of patronage may have run into the ground with the demand from the public in both urban and rural areas for accountability in the light of Cashgate and the demand for evidence that resources are being allocated and reaching the services and communities for which they are intended. M&E has a rightful place today at the heart of the public sector reform agenda. Politicians and administrators who continue to waiver between a patronage and allowance culture and the demand for evidence of performance and accountability will find themselves on the wrong side of history in a re-awakened Malawi. As was expressed at the final report workshop, the time for business as usual is past. It should no longer be possible for factual results of a survey to be suspected of being withheld because the evidence does not suit the purposes of vested interests as some claimed occurred over the results of IHS3 2010/2011, which contradicted the results of the earlier 2009 WMS.

- *Revealed Public Finance Management weaknesses*. Although the weaknesses in the Public Finance Management have had the unfortunate consequence of reduced aid flows, it is an opportunity to address these concerns through an information system that improves accountability.

- *Willing development partners to improve M&E.* There appears to be goodwill among several development partners, evidenced by programmes such as the joint UN – EU support through DEAP and support provided by some donors to support the development of M&E frameworks and databases. Development partner heads have indicted that they wish to work within the framework of a common agreed vision and plan for M&E and to end their fragmented support for M&E sub-systems that feed their own interests. This implies the need to create credible plans to advance the M&E agenda towards improved M&E systems in the country. Recognising the current weaknesses at central level, development partners would like to see a pragmatic incremental roll-out of a national plan for strengthening M&E, starting at District level where there is demand for and commitment to change.

- *Existence of Sector Working Groups*. Sector Working Groups have been instituted, but only a few are functioning properly, reflecting a weakness in their ability to influence outcomes. If the SWGs can be reformulated with more balanced representation of a wider range of stakeholders, they could provide a strong platform for mutual accountability among various sector partners towards achievement of development effectiveness. A focus on joint sector reviews focused on accountability on sector outcomes would assist in

strengthening the M&E systems in the public sector[11]. Each SWG should develop an M&E plan and have this reviewed by the M&E Division as part of the overall M&E Master Plan.

- *MGDS Review offers opportunity to revise indicators and introduce impact evaluation*. Review of the current MGDS document and formulation of the successor MGDS Strategy, taking into account the post 2015 agenda, with the MGDS Road Map and Results Framework, provides an opportunity for Malawi to develop indicators that facilitate results monitoring of the national development strategy, with appropriate focus on equity and inclusion through disaggregated data collection. This fits with the need identified by the consultant reviewing SWGs for developing impact evaluation, linking substantive changes in people's lives to policies that may have contributed to the changes. Any evaluations should be part of a National Evaluation Plan and offer individual and institutional capacity building for evaluation. Every evaluation should result in the responsible programme or policy owner producing a post-evaluation improvement plan and accompanying monitoring agenda for the improvement plan.

3.4. Threats

The following are key threats that constrain M&E systems in Malawi:

- *Weak legal framework for access to information.* Plans are in place to pass the Access to Information legislation (Access to Information Bill), but this has stalled. The absence of such a legal framework requiring public sector agencies to disclose information to citizens means that eve when demand was there, accessing information might be a constraining element. Although advocating for the passing of the ATI Bill and its consequent enforcement would be the more effective solution, a deliberate operational strategy to ensure key information is available to the citizenry might assist in ameliorating this challenge. The current public sector reform agenda should be placing accountability and associated M&E at the centre of a professional and accountable civil service that delivers for all.

- *Low demand for accountability and quality performance information*. Malawi's administrative and political culture is historically based on patronage, not evidence of need or what will deliver impact in terms of multi-sectoral poverty reduction and inclusive economic growth. The general lack of demand for accountability is perhaps the biggest external constraint to M&E in Malawi.

[11] The Economic Planning Division in EP&D is currently undertaking a review of SWG functionality with support from an experienced consultant. Outputs from effective M&E should be at the heart of SWG discussions on policy and programme design as well as being used as a management tool. It will be vital for government to follow up these recommendations proposing rationalization of SWGs in order to make them an effective instrument for driving up performance and improving programme efficiencies and effectiveness in terms of outcomes for those most in need. Too often report recommendations remain hidden on shelves and business continues as usual.

Because society does not generally demand responsiveness from public sector agencies even where performance is evidently poor, there seem to be no incentive to improve information systems to improve accountability. As noted above, creating an open system that puts performance information in the public domain may assist in reducing the negative effect that low demand has on the incentive framework for a robust M&E system in the public sector.

- *Unfunded M&E mandates:* While departments and districts are expected to fulfil M&E roles funding for M&E systems is not predictable, if to say not available for most agencies. Budgets are prepared but only partially funded during the course of the year, suggesting planned M&E activities are not carried out. This constraint also affects the M&E Division in MoFEPD, but is particularly acute at the district level, and in smaller planning units in sector departments that struggle to undertake M&E due to lack of funding. Mobilizing and ring-fencing a minimum percentage funds for M&E in annual sector, department and district budgets may assist in ensuring some critical M&E activities are carried out.

- *A patronage system that undermines public sector accountability.* With appointments at the top of the public service largely political in nature, accountability is likely to be undermined. This system is therefore, likely to undermine critical accountability elements if they are not consistent with governing party political expectations. Instituting a decentralized but openly accessible information system on key Government performance areas around service delivery may assist in reducing the effect of the patronage systems.

3.5. Staff Strength for M&E in Selected Sector Ministries and Departments

Staff strengths, both established and actual, vary widely, with Ministry level Planning Departments naturally established at greater strength than the Departmental Planning Sections. Nonetheless, a common feature is under-staffing against establishment; for example the Ministries of Lands and Housing and of Tourism each have only 6 personnel in post, against establishments of 12 and 11 respectively. The Ministry of Local Government and Rural Development has 6 staff against an establishment of 20 (See Table 2).

Table 2: Staff Strength for M&E

#	Name of Ministry/Department	Location of M&E Function	Existence of M&E Framework	District &Field Presence	Staff Strength vs. Establishment	Qualifications & M&E Training
1	Ministry of Finance, Economic Planning & Development	M&E Division	Overall MGDS II Results Framework	No	11/13 (All economists)	At least MSc/MA Economics

#	Name of Ministry/Department	Location of M&E Function	Existence of M&E Framework	District &Field Presence	Staff Strength vs. Establishment	Qualifications & M&E Training
2	Water Development	Planning Dept. of Ministry	Framework exists. Developed with the African Development Ban Support	3 regional offices, District Water Officers, Water Monitoring Assistants	17/? (includes 2 systems analysts, principal statisticians and data clerks/statistical clerks	Economists, Statisticians with at least Bachelors degree. All economists undergone a short course in M&E in South Africa
3	Irrigation Department	Planning Unit of Dept.	No consolidate framework. Rely on annual work plan targets	District Irrigation officers	2/2	Economics. At least Bachelors degree
4	Agriculture and Food Security	M&E Section within Planning Dept.	Guided by A-SWAp results framework	Extension planning areas District Agric. Dev. Officers	4/4	Chief and Principal economist-MA/MSc; 2 economists Bachelors. On job M&E learning
5	Land Resources and Conservation Department	In planning section	No consolidate framework. Monitoring indicators drawn from annual work plans	See above	2/2	Economist-BA/BSc; Statistical clerk --non-grad.
6	Ministry of Environment and Climate change Department	In Planning Unit	Framework under development	No	6/8 (with 2 statistical clerks)	2 MA/MSc; 2 BA/BSc; 2 non-grad. Two week M&E orientation
7	Environmental Affairs Department	Within planning unit	No framework, but there is an indicator listing which is being revised	No	6/6 in HQ	2 MA/MSc 4 BA/BSc. On the job learning
8	Forestry Department	Within Planning Unit	No framework currently. Plan to extend M&E framework development for Improved Forestry Management for Sustainable Livelihoods project to sector requirements	District Forestry Officers	4/4 in HQ	2 MA/MSc; 2 BA/BSc. On the job learning
9	Ministry of Local Government and Rural Development	In Planning Dept.	No framework	District M&EOs[a]	6/20	At least BSc for economists. On the job learning and orientations on M&E
10	Ministry of	In planning	No framework.	District Lands	6/12	3 MA/MSc

#	Name of Ministry/Department	Location of M&E Function	Existence of M&E Framework	District &Field Presence	Staff Strength vs. Establishment	Qualifications & M&E Training
	Lands & Housing	Dept.	Use standard indicator listing in annual work plans	offices Regional lands offices		3 BA/BSc. M&E mostly learnt on the job
11	Ministry of Information, Tourism and Culture	In Planning Unit	Under development	District Information Officers and Parks & Wildlife Officers in protected areas	6/11	2 MA/MSc 4 BA/BSc (Econ). M&E mostly learnt on the job
12	Ministry of Transport & Public Works	In Planning Dept.	Framework developed with EU support	No, rely on line departments for information- Traffic Police, Civil Aviation	11/11	4 MA 6 BA/BSc. Some staff orientation and on the job learning for M&E
13	Energy and Mining	In Policy & Planning Unit	No sector framework. Project M&E frameworks exist	No. Work through forestry, MERA, National Oil Company of Malawi, ESCOM	4/9	1 MA/MSc 3 BA/BSc 1 non-grad. M&E learnt on the job

/[a]—functional link only: District M&E Officers are not part of the Planning Department in MoLGRD

Source: SMEC International .(2014). Assessment of Existing M&E Systems for the Consolidated M&E of the Shire River Basin Management Programme and consultations with sector Ministries and Departments

The smaller Departmental Sections are generally staffed at or near establishment. However, they reported a high workload involved in carrying out the assigned duties with such small numbers. It was generally estimated that the M&E function occupied 30%-40% of staff time. Overall, the staffing shortages must militate against effective discharge of existing M&E (and Planning) functions.

The large majority of staff in post has satisfactory academic qualifications for their roles; senior personnel almost all have Masters' degrees, and with a few exceptions, juniors have Bachelors' degrees. A few non-graduate technical staff are found in some sections—statistics clerks. Regarding specific training in M&E the situation is varied. The former Ministry of Water Affairs and Irrigation, now part of an expanded Ministry of Agriculture, managed to send all its Planning Department personnel on a short M&E course in South Africa, but in most, training in M&E is on the job with some staff having undergone orientation sessions. Training on the job, supported by in-country in-service training, is arguably the best option as it can be tailored to sector and district needs and enable more experienced peers and academic tutors to mentor staff to apply their skills effectively. While staff reported they were able to perform their M&E roles, it is likely that the limited depth in M&E training among staff must work against consistently applying M&E best practice in the public sector.

4. Existing Systems, Information Management and Integration

The Malawi budget comprises four segments of Recurrent; Development; Revenue; and Advances. Key financial monitoring systems are IFMIS (Integrated Financial Management Information System), AMP (Aid Management Platform)

and PSIP (Public Sector Investment Program) Database[12]. However, these are not well linked together nor linked to expenditure, outputs or development outcomes.

4.1. IFMIS

IFMIS is the GoM's main system used for managing financial information for budget preparation and budget execution. Funded by the World Bank, IFMIS has the objective of providing timely and accurate financial information while enforcing a standardised integrated financial management reporting system for government Ministries and departments. It is based on an enterprise resource planning (ERP) software made by the American-based company Epicor, called Epicor ERP. Epicor ERP is intended as an ERP software solution for mid-sized businesses but has been configured in Malawi for the management of the national budget. The system was installed by the Tanzania-based contractor Soft-Tech in 2005. According to key stakeholders interviewed, the GoM is still largely reliant on Soft-Tech for modifications and improvements to IFMIS. IFMIS does not have a read or write application programming interface for programmatic access to data, but it can generate templated reports. Any significant automated data exchange with IFMIS would likely require external intervention for IFMIS modification. IFMIS uses 32 digit Chart of Accounts codes to identify each line item in the national budget. Budget estimates are put into the system before the start of each financial year, and the system is then used to track allocations and expenditures. Each Chart of Accounts code identifies key aspects of a budget line, such as the vote (government entity managing the money), cost centre, project name, donor (in the case of foreign funded projects), and programmatic focus. A full overview of the Chart of Accounts is provided in Annex 1. Although the cost centre digits permit disaggregation to sector projects that may be within one district, the coding does not at present permit systematic disaggregation and re-aggregation to provide the overall envelope of Recurrent, Development and Revenue resources available to each District and against which performance in terms of sectoral outputs and inter-sectoral development outcomes can be monitored.

At district level IFMIS is deployed on a customised Microsoft-NAV based solution called Serenic Navigator which uses Role Centers for system navigation; where each employee is provided with a customized interface that contains only the modules, features and links relevant to their position. The interface is built based on employee roles, which can easily overlap. It is a more comprehensive ERP-style suite that includes Advanced Allocations, Purchase Order and Purchase Requisitions, Fixed Assets, Deposits and Loans, and Core Financials. It also offers complete Financial Reporting, including an Integrated Excel Report Writer and Business Intelligence tools. Additional functionality that can be enabled is donor management, grant management and a variety of software portals.

In a phased approach different donors funded the deployment in respective districts resulting in varied back-end hardware and connectivity setups. An ideal example is Zomba DC with proper server management (backup etc) and connectivity to Capital Hill in Lilongwe over a dedicated low-cost ADSL VPN as wells as links to other key ministries at District level (health, agriculture, education etc) has been provided (with scope for additions). The system is managed by a competent administrator who has received the requisite training.

[12] The following paragrpahs on IFMIS, AMP and PSIP is largely from Budget Integration Assessment June 2014, pages 5-7.

Strengths: Integrated standardised functioning system in all Districts and Sectors;
Weaknesses: Not providing full envelope of resources at District level; not publicly accessible reports;
Opportunities: Potential to activate donor and grant management;
Threats: District variations in back-end hardware and connectivity set-ups.

4.2. AMP

The Aid Management Platform (AMP) is an online software application through which government officials can track and monitor development projects and programs. From planning through implementation of aid activities, government and donor staff use AMP to enter and edit information, generate charts, graphs, and maps to monitor vital trends and statistics, and produce reports on public development spending. Highly customizable, it supports a country's national development framework, reduces administrative workload and costs, and enables close coordination with donors. AMP has been implemented in over 20 countries on 4 continents.

In Malawi it is housed within the Debt and Aid Management Division (DAD) of MoF, which, since 2008, has tracked basic information about externally financed projects, including description, implementing agencies, MGDS II, location information and sectors, as well as financial information such as commitments and disbursements. Expenditure data currently are not being tracked at all in AMP, although the system does have the capability if it was collected. AMP Malawi currently does not track other project-level performance information. While the AMP does have the capability to track certain indicators from Monitoring and Evaluations, the Government of Malawi has not elected thus far to track this information within the AMP. Development partners are required by the DAD to report monthly data on project disbursements in the AMP. Some development partners enter financial data directly into the system via the AMP's web portal, while others enter project information into spread-sheets which they then send to the DAD.

AMP is managed by at least four core staff within the division who can perform basic administrative tasks and also provide training for relevant donor staff and other government employees. The hardware is hosted at and managed by the MoF IT support officer who is from the E-Government Common Service.

Since 2013, AMP operates a public portal that allows access to details on all reported project activities financed by development partners, and allows for analysis through data visualization in an interactive dashboard and a map that displays project locations - see (malawiaid.finance.gov.mw). Although AMP successfully captures self-submitted data from development partners[13], and a public portal is available on it, it does not track performance.

There are serious problems concerning the lack of integration between AMP and IFMIS, both in project identification and in tracking of expenditure. The June 2014 Draft Final report, submitted by Development Gateway to Ministry of Finance, on Budget Integration Assessment in Malawi notes that: *While it is completely understandable that off-budget projects would appear in AMP but not in IFMIS (tracking off-budget funding is, in fact, one of the key roles for the AMP), it is a*

[13] Until about 2005, donor commitments and disbursements were essentially off-budget and AMP has been developed in order to disclose the overall resource envelope available. An online portal is available for AMP and closer integration with the Government IFMIS system is currently being considered and a report on this has been produced.

significant challenge that only 5 of 24 development projects in the IFMIS from the pilot subset of the 2012/2013 development budget could be easily found in the AMP. Similarly, many projects in AMP which had been reported as being on-budget did not appear on the Government of Malawi's balance sheet. As well, definitions across departments may not be the same, causing confusion. Clearly there is significant work needed on data cleaning and data reconciliation between these systems before any meaningful integration work can be undertaken. MoEPD and JICA staff who have looked into the issue in detail reported that similar work will likely be required for any integration with the PSIP database. At the moment the AMP tracks financial commitments and disbursements, but not expenditures. However, expenditures are a key way to track financial performance of projects, and give planners and decision makers a clear view of how projects are progressing. Given that the AMP contains several planning and analytical tools (dashboards, reports, GIS, etc.), there would be significant value in importing expenditure data to the AMP, to make it possible to see how implementing agencies for on-budget projects are managing real expenditures.

Despite this comment by the Development Gateway consultants on the current weakness in integration between AMP and IFMIS, the potential of AMP is considerable. A major innovation proposed is to import Government contributions and part 2 projects from IFMIS to AMP, including the importation of stand-alone government-financed development projects, as well as government contributions to foreign aid projects, and expenditures of on-budget projects. Subject to agreement by GoM, the proposals for AMP could allow for a coherent record of development activity. Additionally, this will take advantage of the detailed fields and tools available in the AMP, such as being able to map where all development efforts are taking place, and be able to use the interactive GIS mapping tool for further analysis based on sector, MGDS, etc. This information will then be available on the AMP Public Portal and available in reports and dashboards to the public. In terms of transparency of budget information, this will be a major step forward.

The Budget Integration Assessment Report proposes (pages 18-20) selecting "*a realistic set of pilot activities that will add value to the AMP without overburdening the responsible team. With that in mind, a set of activities has been proposed which encompass a solid foundation of integrated central government systems. Collectively these activities would strengthen the budget development process, increase the transparency of the development budget, and improve the utility of the AMP's analytical tools. They would also provide a solid foundation for future manual or automated data exchange between the systems, including any future systems designed for results management. With this in mind, the following set of activities is proposed*": Data Reconciliation (reconciling AMP projects with their equivalents in the IFMIS and the PSIP); Importing Government Contributions and Development Projects from IFMIS to AMP (including using the interactive GIS mapping tool); Integration of PSIP and AMP (including piloting bi-directional data exchange between the AMP and the PSIP, recognising that this would require substantial work on data harmonisation); Integration Governance (led by E-Government); improving AMP to make "quick updates" easier; and importing AMP Data into IFMIS.

DAD will be undertaking phase one of efforts to link the IFMIS, PSIP and AMP during the next year. While current changes are being made on the IFMIS, efforts

will be made to prepare AMP data to be merged with IFMIS data, modify the AMP's IATI Integration tool to be able to import budget data in CSV format. Once changes to the IFMIS system are finalized, DG will work with the MoF to prepare IFMIS data to be imported into the AMP. This will mean that both foreign and government development investments will be available within a single system. The end result will be the anticipated complete picture of development efforts throughout Malawi in one central location and with reports, charts, and mapping tools available to the Budget Division, Accountant General, and all other stakeholders including the public.

Phase two of the integration would support the export of AMP data into the IFMIS, however this portion is not within the current Budget Integration Assessment contract scope, and would need backing to complete.

In May 2014, the DAD started roll-out of AMP to NGOs to collect information on NGO activity and funding from sources outside of traditional Development Partners. A training of over 20 NGOs was held, and a process created in which Development Partners would continue to report on activities they funded where the NGO was an implementing agency, and NGOs would report on activities funded from other sources to avoid double counting. Since the initial training, DAD has not had sufficient staff to support the continued training and support to NGOs to ensure data entry. While process, tools and infrastructure are in place, the Government needs sufficient political support and resources to ensure NGOs are prepared to enter data into the system. Development partners and NGOs need to agree a protocol that will prevent double entry of in-country funds used for district level implementation.

This report endorses the recommendations of the Budget Integration Assessment Report in its approach to aligning IFMIS, AMP and PSIP as one important aspect of integration of M&E that will complement its own recommendations towards integration of sector, district and community reporting of development expenditure, activities, outputs and some outcomes, together with increasing digitisation of registers (see below).

Strengths: Can be customised; public portal with interactive dashboard and a map that displays project locations;
Weaknesses: Not yet integrated with IFMIS and PSIP; lacks standardised definitions; no links to outcomes;
Opportunities: All development funding can be covered, including government projects and contributions; Enables close coordination with donors; NGO projects can be included; the newly activated public access portal;
Threats: Depends on development partner self-reporting.

4.3. PSIP

The PSIP (Public Sector Investment Programme) is based at MoEPD in the Development Division and plays a crucial role in the budget development process in Malawi. All line ministries are required to submit their proposed development projects to the PSIP during the budget preparation process. The PSIP team validates these project proposals and makes recommendations to the Budget Division at MoFEPD, which ultimately leads to the annual development budget allocations. This process might change if PBB is adopted and the development budget is integrated into the Budget Division. The PSIP database is a bespoke web-based software solution developed by a team of technical consultants employed by the Japanese International Cooperation Agency (JICA), in

partnership with the MoEPD and Malawian IT specialists of the E-Government Common Service. The system uses a MySQL database with a web front-end, and is housed on a server accessible on the Government Wide Area Network (GWAN). EPD is steadily becoming less reliant on technical support from JICA for modifications to the system thanks to a structured mentorship scheme for Malawian counterparts adopted by the developers of the system. The PSIP Database system requires a user ID and password to enable a viewer to login. An M&E module is available on the Malawi PSIP Portal's PSIP Database, the central database for development projects, but this is not currently being maintained.

Beyond project planning and reporting under AMP, Government does not have an integrated performance MIS for MGDS indicators or OPA targets. PSIP content and utility could be reviewed to see how it might link to real-time MIS reports; allocations of recurrent, development and revenue resources; NSO (MASEDA and MNADA) survey data; and reports from community based monitoring. While the PSIP, given public access, could be revitalised to allow for direct updates from surveys, sector MIS and community based monitoring, we propose (below under section 4.17) that this be achieved through the public access IPMIS. In principle, MIS data needs to be made open access, either through the PSIP or the IPMIS or directly on sector websites. However, in summary: PSIP works as a model, but is not the system to use going forward[14].

Strengths: Critical role in preparing and managing the Development Budget; Customised development;
Weaknesses: Not linked to MIS reports on outputs and M&E module not being used; not publicly accessible; no use of community based monitoring;
Opportunities: In-house team with capacity to develop the system, with reduced external assistance;
Threats: Development Budget becomes integrated in Budget Division, which would be a positive development, but have implications for PSIP.

4.4. PBB

In addition to the potential changes due to the fallout from the Cashgate scandal, there is also currently a pilot underway with 6 ministries to assess the potential of program-based budgeting for improving resource planning in Malawi. The objective of the pilot is to showcase a more results-focused approach to budgeting, as a way to putting more emphasis on achieving development outcomes in Malawi's budget planning process. Program-based budgeting is also intended to make it easier to link Monitoring and Evaluation activities with budget evaluation. In order for PBB to succeed, it will need greater aid predictability. The ability to show both expenditures and results within the same system would support the overarching goals of PBB. If implemented, program-based budgeting could result in changes in the way the Chart of Accounts is managed - primarily a simplification of the program and activity code segments, an orientation of those codes towards results, and the inclusion of both recurrent and capital spending with a clearer distinction between the two.

Strengths: Results focus to budgeting, showing expenditures and results in the same system;
Weaknesses: Requires greater clarity in budget allocations and flows; lack of public access and links to community based monitoring;
Opportunities: Linking M&E activities with budget evaluation;
Threats: Patronage culture that is not based on results.

[14] A model example of user-friendly open-access information is provided by the Scottish Government's national performance progress monitoring website, which with appropriate modification related to MGDS and OPAs for Districts and sectors could provide opportunity for Scotland-Malawi transfer of experience. See http://www.scotland.gov.uk/About/Performance/scotPerforms/glanceperformance

4.5. RBM

Currently, EP&D is piloting Results Based Management (RBM) in 3 Ministries and 4 Districts, supported by UNDP as part of its overall support for M&E. The RBM and PBB programmes of work are seen as complementary. A joint government team developed Integrated planning and Budgeting Guidelines for moving this agenda forward. It is intended to cover all areas of planning, management, monitoring, evaluation, performance management and learning.

Strengths: Results focus to budgeting;
Weaknesses: Would require improved community based monitoring to assess impact;
Opportunities: Linking inputs, outputs and outcomes in a logical sequence and covering all stages of a project process;
Threats: Patronage culture that is not based on results.

Box 1: UN Results Management System

Results Management System (RMS)

In 2014, the UN in Malawi made managing for results a core focus, ensuring that data and results are at the heart of UN decision making. To realise this, the UN has taken on two major initiatives: (i) a web-based Results Management System and (ii) a Real-time Monitoring Framework – see 3.18 below.

The Results Management System is a web-based platform designed to improve implementation of the UNDAF, by strengthening planning, monitoring and reporting. The RMS will provide a common platform for all 21 resident and non-resident UN agencies, funds and programmes to track and report on progress of activities and results.

The system allows programme managers and staff to closely track the implementation of joint work plans and to report on progress and results. Through an interactive dashboard, programme staff can monitor the progress of indicators and results through customisable graphs. Finally, by utilising mapping tools, it will be possible to visualize the UN's work in Malawi in terms of agencies, sectors, budget/expenditure etc. This will be useful, both in terms of internal planning (understanding what agencies are working where), and also externally, in terms of public understanding of the UN's work in Malawi (through a public portal).

The system will significantly improve the quality and reliability of the UN's monitoring and reporting and will reduce the time that staff spend on reporting, while also providing them with easier and quicker access to results.

4.6. Payroll and Human Resource Management System

The Payroll and Human Resource Management System purchased by the

Government is to overhaul the locally developed government establishment, personnel, payroll, pensions, loans management (PPPAI) that was initiated in 1998-99. Together with IFMIS, this is managed under the Department for eGovernment. With funding from the Chinese Government of about USD135 million, the Department of eGovernment will implement a number of ICT projects in the country over a 4 to 5 year period from 2013[15]. The projects include establishment of a data centre, provision of e-services such as e-immigration, e-national registration and identification system, sharable geographic information system, electronic document management system, e-Learning platform for the public sector, enhanced electronic communication systems, electronic marketing systems and electronic security systems. The Road Traffic Department's Traffic Management Information System (MaITIS) facilitates motor vehicle registration, issuing of driving licenses and road permits, but there are questions about its software and IT support. The Malawi Immigration Department has also introduced a computer based machine readable passport issuing system which is a fully integrated turnkey passport issuing structure, incorporating state-of-the-art biometric enrolment issuing software and Toppan digital passport printers. In addition, the Department has launched a new ICT innovation border control system at its international airports, called the Integrated Border Control System, as part of its objective to computerise all its border posts.

Strengths: Increased digitisation of records and use of biometric data; management of payroll; reliable data based on registers;
Weaknesses: Requires capacity building for a wide range of IT skills; Not web-based since for internal use only;
Opportunities: Reduction in “ghost workers” and fraud; the National Registration Bureau is an obvious candidate for early digitisation as the basis for other registers in health, education etc which are currently based for coverage calculations on census population projections.
Threats: Technical hitches affecting data access.

4.7. MASEDA

The Malawi Socio-Economic Database (MASEDA) is an online (www.maseda.mw)[16] comprehensive socio-economic database on the situation of human development in Malawi. MASEDA was created by UNICEF and the National Statistics Office (NSO) in collaboration with Malawi’s development partners. MASEDA is reported to be tracking more than 250 indicators, although it lists about 10,000 disaggregated indicators, and is, at the time of the consultancy and writing, not fully functional, evidenced by difficulties in accessing it. In theory it permits a viewer to select an indicator and an area (down to T/A level) and then query the database, with pages for List View, Metadata, Sector, Framework (linked to UNDAF), Theme and Source. MASEDA uses DevInfo Database infrastructure (www.devinfo.org), which was developed by UNICEF and endorsed by the UN Group. It would require major re-design to be able to be linked to web-based data sources and useful for management and accountability purposes across Malawi, where download rates are slow.

MASEDA currently claims to offer an open-access platform for historical survey data, together with a mapping function, but this has yet to be integrated to enable inter-sectoral mapping of resources (facilities and budgets), outputs and outcomes relating to well-being, disaggregated by sex and ideally to Ward level,

[15] See IST Africa website www.ist-africa.org accessed 16 Sept 2014.

[16] The website and its linked < di Data wizard >, powered by DevInfo, is slow and cumbersome and not very user-friendly and data on many of the indicators, including budgetary allocations to each sector, are not available. It is doubtful if anyone ever uses MASEDA.

in terms of MGDS indicators. Disaggregated MIS annual indicator updates should be routinely integrated into the MASEDA database. At present, data on MASEDA is largely from MICS 2006, DHS 2000 and Census 2008. There are reports that the database is not routinely updated with the latest MIS data from each sector.

Discussions with NSO highlighted the following operational issues:

- Support from donors (principally UN) for MASEDA was consistent until around 2011, after which updates have become erratic. EP&D budget support for MASEDA is not disbursed as planned. Donor support now tends to divert NSO from its pre-determined calendar to serve donor interests for survey data.

- MASEDA database needs to be updated via a good internet connection[17]. The current connection for NSO is slow, unreliable, and often disconnected when not paid for.
- Initially, the internet service provider for NSO provided hosting arrangements for the database and NSO website. Unreliable funding had rendered a poorer hosting agreement for the database, and although online, the database is now largely unusable due to the poor connection quality.
- A number of line ministries provide materials for input into the database in report (Word, Pdf) format. This takes NSO staff additional time to format. It seems there is need to better integrate the support from NSO to line ministries (Statistics Common Service) with that of M&E from Ministry of Finance (Economics Common Service) to allow better flow of reports and data.

Even if MASEDA is revitalised within its current mandate, there is a need for a review of its capability and value and how it could complement the IPMIS in order that its utilisation complements use of real-time data within IPMIS and future IPMIS automated reports that can inform Parliament, District Councils, central resource allocations, OPA performance assessments and sector policies and programme implementation in order to achieve national goals.

Strengths: Source of historic survey data;
Weaknesses: Unable to link to web-based sources; lack of real-time data; manual uploading of reports and data; poor internet connection and therefore access, with excessive number of indicators, many of which are unavailable;
Opportunities: Potential for complementary role to IPMIS; automated population of data;
Threats: Limited capability development; inconsistent funding.

4.8. MNADA

Besides MASEDA, NSO manages the Malawi National Data Archive (MNADA - http://www.nsomalawi.mw/national-data-archive-nada.html) as a repository for secondary data that may be collected by university research organisations or civil society working in specialized areas, such as child labour, violence against children, or disability. MNADA is a web-based storage house where data from various surveys is documented. This focuses on raw data, which is in most cases at household levels. It documents the type of survey, kind of information that was collected and definitions of various records that were collected during the survey. It serves as a portal for researchers to browse, search, compare, apply for access, and download relevant census or survey datasets, questionnaires, reports and other information. The M&E system has no mechanism to ensure that such data is integrated with mainstream datasets. It was originally developed to support the establishment of national survey data archives. The application is used by a diverse and growing number of national, regional, and international organizations. MNADA, as with other IHSN tools, uses the Data Documentation Initiative (DDI), XML-based international metadata standard.MNADA holds a Central Data Catalog of Metadata on secondary datasets and uses the Data Documentation Initiative (DDI) – ddialliance.org – standard for the presentation of metadata for each study. MNADA reports the range of access types as: Direct Access Data Files; Public Use Data Files; Licensed Data Files; Data available in an Enclave; Data available from external repository, whereby MNADA allows for studies and their metadata to be listed in a MNADA catalog but for a link to be

[17] At the time of the review, the NSO internet connection averaged 128kbs, to the user, thus not broadband.

created to another site when the data for that study are available elsewhere.

Strengths: Valuable as a repository for secondary data and raw data sets, useful for researchers;
Weaknesses: No mechanism for integrating data with mainstream datasets;
Opportunities: Wide range of access types; links to data held on other sites;
Threats: lack of investment in its coverage.

4.9. NSO Website

The NSO website is more current than MASEDA, which appears on the NSO website, and the September 2014 Malawi MDG Endline Survey 2014 Key Findings was available online from the NSO website in September 2014, although not uploaded to MASEDA. However, the most recent Monthly Statistical Bulletin available on the NSO website in September 2014 is that for January 2013, providing key financial data such as price index, government revenue and expenditure, imports/exports and industrial production. Policy discussion is required as to which websites should contain links to the proposed real-time M&E database, with the presumption always towards open government, transparency and the right to information, which will reduce the cover for poor performance.

Strengths: Capable of quick report uploads;
Weaknesses: Not kept up to date;
Opportunities: Potential source for wide range of administrative data, particularly on the economy, contributing to open governance;
Threats: Lack of clear mandate and ability to provide current data.

4.10. Sector MIS

Currently, sectors maintain their own M&E systems, which operate in isolation sustaining a silo approach to the overall development agenda. The most developed is that for Health, although even this is still integrating all Project and Programme into the central HMIS. The HMIS (http://www.hispmalawi.org.mw/) is backed by bilateral and multi-lateral donor and NGO support, with their interest in promoting improved outcomes in specialized areas such as maternal or child health and immunisation and monitoring their inputs down to facility level and related outputs. The Elisabeth Glaser Paediatric AIDS Foundation (EGPAF) provides the hardware at District Hospitals. EGPAF pay internet connection costs to end December 2014 and UNFPA pay for a dongle back-up system. The web-based DHIS software (DHIS2 since 2012, formerly DHIS1.3 - www.dhis.org) is not yet fully activated and the system does not as yet generate automated reports, metadata and headlines on the key reportable diseases. Other countries, such as Zimbabwe and Kenya, using the same software, have activated automated reports that are publicly available[18]. Malawi should now do this to enable increased accountability and performance.

All programme coordinators at District level, such as for malaria, family planning, ante-natal, maternal, OPD, etc have been trained on the DHIS system, but not all are capable of entering directly themselves. There is a comprehensive network of reporting from the Health Surveillance Assistants (HSAs) at the rural health centres; Data Entry Clerks at each Rural Hospital, recording summary data from the HSAs and the hospital registers, which are sent up monthly to the District

[18] The overall databank architecture for DHIS2 is located here https://www.dhis2.org/. The countries using this system for health information can be found on: https://www.dhis2.org/deployments. "Real-time" information on Zimbabwe, available to an approved regular user, is available http://nhis.mohcc.gov.zw/index.php?. For Kenya, one can create a user name and access the complete system on a read-only basis at https://hiskenya.org/

Hospital; Assistant Statisticians with two Data Entry Clerks at the District Hospital that collate summary data from District Hospital Registers and Rural Hospital and CHAM and other private Hospital and clinic returns (in practice not collecting from rural private clinics representing perhaps 2% of diagnosis and treatment); HMIS team at Ministry level. The District Assistant Statistician, an established post within the National Statistics common service, placed under MoH, may work closely with the District M&E Officer, currently not an established post under MoLGRD, but even when collaborative, only shares soft copies of summary data in Excel or pdf versions. Reports from the Rural Hospitals are taken in special folders to the District Hospital by motor-cycle riders, funded by an NGO over the past year. The HMIS measures timeliness and completeness of reporting, with HSA summarised reports by 1st of the month, Rural Hospital Data Clerks' reports by 5th and District reports by the 15th. National AIDS Commission (NAC) also operates a donor-funded MIS, although reporting from support networks remains variable.

In summary: DHIS2[19] is a tool for collection, validation, analysis, and presentation of aggregate statistical data, tailored (but not limited) to integrated health information management activities. It is a generic tool rather than a pre-configured database application, with an open meta-data model and a flexible user interface that allows the user to design the contents of a specific information system without the need for programming. DHIS2 and upwards is a modular web-based software package built with free and open source Java frameworks. It is open source software released under the BSD license and can be used at no cost. It runs on any platform with a Java Runtime Environment installed. It includes several of the components considered key from our discussions, particularly around access control and data capture.

Strengths: Strong development partner support, with systems down to District and facility level; Provides monthly up-to-date records and timely relevant data for reporting on disease burden including reportable diseases;
Weaknesses: Interface between manual registers and electronic uploads; compromises on definitions and coverage (e.g. fever vs malaria; less accurate on morbidity of over-fives); not linked to other data sources (e.g. on nutrition or WASH); Not linked to expenditures; Not accessible to District M&E Officers; Lack of community based monitoring;
Opportunities: Potential to activate DHIS2 full capacity for automated reports; Potential being tested for digitised registers; Potential for management performance monitoring if linked to CBM;
Threats: Limited sanctions on poor compliance; Not transparent;

Education MIS is the second most complete system, but still internal to its sector silo and focused on annual data, with little attention to quality, the main focus of post-2015 agenda replacing the weak MDG indicators based on enrolment. Each primary school maintains a school register of pupil enrolment and teacher details. A monthly record of staff and pupil attendance is kept at the school in hard copy. Standard 8 Primary School Leaving Certificate results and Form 4 secondary JCE and MSCE results are also held in hard copy by each school. Summaries of the school registers are entered manually at the District Education Office by the Education M&E Focal Point or DEMIS Officer (District EMIS Officer), usually a former PEA trained in M&E responsibility. These summaries are sent to Lilongwe by flash disc, through the Human Resource Officer because of its links to payroll, or by internet if the TDC is connected. The report also includes details of teacher vacancies. The District Education M&E Focal Point produces a District Output

[19] See https://www.dhis2.org/downloads

Based Report, based on key education indicators using a District level template for activities and achievements, which is shared with the District M&E Officer as a report.

Each school also completes an Annual Primary School Census Questionnaire, which reports on School Identification Data (When the school was established, the current Head Teacher, School Registration number, Location of the school, etc); School Enrolment Data (records are submitted by Age, Sex and Standard, repeaters by Sex and Standard, transfers in by Sex and Standard, transfers out by Sex and Standard, the previous years dropouts and also teachers by qualification); Physical Facilities (classrooms, teachers houses, water toilets, pit latrines, kitchen, hostels, electricity, tables, chairs etc); Supplies and Textbooks; Teacher's Data (Sex, Date of birth, standard they are teaching, teaching qualification, etc). An intranet is being set up with an internet server in each Division and District, supported by GIZ, and now being rolled out to Education Zonal and TTC levels. This is linked to school mapping for real-time data collection and avoiding pre-existing parallel systems within the sector, such as three distinct lists of primary schools held by EMIS, by Basic Directorate and by the District administration – similarly for Secondary Schools. The new intranet EMIS is expected to generate one good list that can be constantly updated. Progression to a web-based system is being considered.

Currently MoEST has a pilot cohort-tracking project, based on the introduction of a unique student ID system, which by Feb 2014 had covered all pupils in Standards 1 to 7, 3.5 million of the 4 million primary pupils. Although the ID is built on a numbering that includes the ID of the school of initial enrolment, it remains with the child wherever they may move schools within or between districts. There are clear advantages to this, although it masks the relatively small amount of pupil movement between schools, which may affect learning outcomes and have marginal impact on assessment of internal school effectiveness. EMIS is currently staffed at District level by former teachers/PEAs (Primary Education Advisers), trained in M&E and deployed as established posts, shortly with addition of posts at Zonal level. The District M&E Officer typically has to walk round to the District Education office in order to obtain a hard or soft copy of the summary District EMIS data in Access being forwarded to MoEST in order to use this for District planning and reporting purposes.

Strengths: Identifier system for all pupils (although disguises pupil migration);
Weaknesses: Registers contain more data than is uploaded; Lack of use of outcome data (pupil learning assessments); Lack of real-time management data (e.g. on pupil and teacher attendance) for performance monitoring; Lack of link to other data bases such as Birth register, thus restricting universe of children to those known to the school not out-of-school; Not linked to budgets and expenditures; not accessible to all departments in MoEST; not available to District M&E Officers; Lack of GIS mapping of inputs, outputs and outcomes;
Opportunities: Cohort tracking linked to learning outcomes;
Threats: Not transparent; ad hoc development with no clear vision for an overall system; lack of community based monitoring and checks on data quality;

The Ministry of Agriculture no longer has an effective MIS, but it does collect through about 300 enumerators, employed by the Ministry of Agriculture under its Statistics Unit, market information, which is entered into the Ministry's server. This server has yet to be linked to the web to ensure wider access and effective back-up. The enumerators also generate crop estimates jointly with the agricultural extension officers, which are carried out on a sample basis and include sources of agricultural inputs. These estimates are carried out at three

points in the agricultural season by interviewing the sample of farmers before planting; during the vegetative stage and before harvest. There is a need for such data to be entered immediately by enumerators into a web-based system that automatically aggregates the data. Although agricultural extension officers have an element of nutrition training in their basic training, nutritional status data is only effectively collected by HSAs for under-fives and is now collated by MoH, formerly by a special division of OPC. The Ministry of Agriculture data, particularly market prices and maize production estimates, are used in the MVAC (Malawi Vulnerability Assessment Committee) assessments of food security, which falls under the mandate of EPD. Although not statistically robust, the estimates have been used widely by Government, WFP and donors to predict potential food support requirements in particular areas. MVAC uses the Household Economy Approach, drawing on past analysis of household coping strategies, current prices of food and data on predicted food production, which is not reliable. The Ministry of Agriculture is responsible for managing Malawi's largest single budget item, the FISP (Farm Input Subsidy Programme), which provides vouchers to about 1.5m small-holder farmers for fertiliser and seeds. MoA is considering biometric registering of beneficiaries, which could somehow be linked to a national ID system and ideally be uploaded to a central web-based system that would allow central ministry monitoring and assured graduation after, say, two years, replacing potential for patronage based allocations[20]. However, this could only be achieved within an effective digitised system with checks and balances that would include a transparent register of beneficiaries. FAO supported the previous Agricultural Census in 2004 and is considering supporting MoA with another census. What is significantly lacking is a range of real-time data on agricultural production and productivity on which to base national planning.

Strengths: Monitoring market information; predicting areas of food insecurity through annual assessments;
Weaknesses: Non-functional; data collectors not statistically trained; non-statistical basis for MVAC; Weak use of GIS mapping; inconsistent on data reliability and timeliness;
Opportunities: Potential for monitoring FISP; Potential for predicting yields;
Threats: Lack of community based monitoring and technical checks on data quality;

Ministry of Water, currently incorporated into the combined Ministry of Agriculture, Irrigation and Water Development, last carried out a Water Mapping exercise in 2006, in association with WaterAid, following earlier mappings in 2002 and 2004, but this has not been maintained by the Ministry since then, although it is planning to run a new mapping. The African Development Bank has been supporting M&E in Ministry of Water, with a mission in September 2014. This includes a database in the Ministry headquarters, which consolidates data at the centre, but not on a web-based or real-time basis. Currently data on existing and functioning water points is being collected in parallel by MoH in the HMIS, although it could readily draw on District Water Monitoring Assistants, the Ministry's engineers and hydrologists at District level, to collect and enter this data on a regular basis in parallel to uploading data from health department registers. However, Districts often find that they are dependent on NGOs for support in water point provision, maintenance and mapping, although the NGOs themselves fail to report on expenditure and maintenance and their Value-for-

[20] The compelling need to be able to link market prices, crop estimates, production, exports and FISP beneficiaries at a District or Ward level in order to carry out effective policy and programme analysis is evident from reading current macro-analysis of FISP, such as IFPRI's "Malawi's Farm Input Subsidy Programme – where do we go from here?" Policy Note 18, March 2014 with its conclusion that *opportunity costs and outcomes under policy alternatives need to be better understood and quantified*.; http://www.ifpri.org/sites/default/files/publications/massppn18.pdf

Money is difficult to assess. The Ministry considers that data was more organised when working under the National Statistics Act, where all recognised their responsibilities, but that the multiple requirements for MGDS, Ministry Strategic Plans and OPA reporting were now difficult to meet. Data on water and hygiene in schools should ideally be monitored in both Water Plans as well as Education, which would be possible if web-based geo-data were provided in open access. Currently the fragmented recording of data on resource inputs from all sources and monitoring undermines a Sector-Wide Approach and prevents District level analysis. Overall, project based work is undermining overall systems. Moreover, water-point development and location is open to patronage influence beyond those of need and hydrology. The dysfunctionality of M&E on access to drinking water and lack of an integrated natural resources database requires clear coordination from EPD linked to development budgets at District level.

Strengths: GIS water-point mapping;
Weaknesses: Not updated; not linked to other sector databases; dependence on NGOs for data and facilitating monitoring; lack of data on functionality of water points;
Opportunities: Potential for linking to HMIS and nutrition data;
Threats: Patronage culture that is not based on evidence of need; lack of capacity to meet multiple reporting demands.

Other sectoral ministries have weaker systems varying from the currently essentially paper-based Ministry of Labour to computerised Malawi Revenue Authority, which still takes about 6 months to produce data on imports/exports, despite the ease with which border posts could upload real-time data for immediate and automated aggregation and production of software generated reports. The Ministry of Mines is currently undertaking a French-backed €10m national geological mapping and the Department of Surveys manages the open-access MASDAP, the Malawi Spatial Data Portal - www.masdap.mw , a public platform for GIS data.

The overall weakness of each sector's M&E sub-system is their lack of offering web-based access, except for the HMIS that has failed to date to activate its potential.

Each Ministry has developed its own sector administrative structure that does not match political administrative boundaries. Ministry of Water has zones covering several Districts, whereas Education has several zones in one District. Water can only provide staff at the Zone, although they may be working in a District. Where there is a programme running in a particular District, the Ministry may be able to post additional staff.

Strengths:
Weaknesses: Lack of coherence and existence of effective sector M&E systems that are independent of vested interests;
Opportunities: Failure to develop appropriate sector M&E systems may permit ready endorsement of an overarching IPMIS;
Threats: Lack of administrative and political will for M&E and accountability.

4.11. NLGFC

The National Local Government Finance Committee (NLGFC) is an agency reporting to MoLGRD, which enables fiscal decentralisation and funds development projects through the District Councils, based on an agreed

allocation formula of ORT. It requires Districts to produce annual plans with sector output targets linked to MGDS and budget allocations and programmes against which they report. Although they have monitoring templates with indicators, these are a mix of process milestones, activities and outputs, which cannot be linked directly to expenditure. Although the Budget tool is Access-based and linked to MGDS on IFMIS, outputs are only entered manually and cannot link to expenditure and sources of funding. This is further compounded by direct project funds that may go direct, for example, to a District Hospital. M&E Officers are expected to produce monthly reports, based on collating monthly reports from each sector, and these are shared with NLGFC and MoLGRD, which should have the same figures as the sector M&E focal points send to their ministries, but this remains a manual system. NLGFC is meant to check records at facility level, but resources prevent NLGFC going below the District Council level for the past two years.

Strengths: Link to annual development budget plans;
Weaknesses: Poor understanding and compliance on indicators; manual system; not linked to expenditure; weak on timely reliable data;
Opportunities: Election of Councillors demanding evidence of budgets, expenditure and outputs;
Threats: Lack of resources for validating data; lack of link to community based monitoring.

4.12. LDF

The Local Development Fund (LDF) is a special trust fund, with World Bank (MASAF – Malawi Social Action Fund), African Development Bank, KfW and Government of Malawi funding, which is mandated to help local councils with the funds and technical support to carry out development projects. LDF is overseen administratively by the Ministry of Local Government (MoLGRD), but retains a policy link with MoFEPD. Funding allocation to districts is based on an agreed equalization formula and four financing windows: Community, for community driven/managed projects; Local Council, for economic investment; Urban Development; and Performance, for capacity building and performance grants. LDF has set up its own M&E, not integrated with national systems, which proved too complex for Districts to use. Lack of feedback from MoLGRD, EPD or LDF reduced interest in reporting and only 6 out of 28 Districts were preparing and submitting reports. LDF has supported capacity building for District M&E Officers. Although LDF has the resources to connect all Districts, there has been resistance to this from MoLGRD as it could result in all data being held by LDF as a semi-autonomous agency. LDF funds are easier to track than NLGFC funds as they are project funds linked to outputs.

Strengths: Strong funding for M&E; Contribution to District level M&E;
Weaknesses: Projectised M&E, not linked to national systems;
Opportunities: Support for community based monitoring;
Threats: Donor dependent; MoLGRD aversion to LDF as an independent agency collecting and holding data.

4.13. Community Based Monitoring (CBM)

The Local Development Fund (LDF), in providing funds to communities, needs to know the impact of its disbursements, but recognises that this needs to be assessed by an independent institution. Drawing on MASAF 1 & 2 direct implementation of community monitoring through use of community scorecards, MASAF 3 design incorporated a Social Accountability framework managed by

Local authorities and backed by the LDF Technical Support Team. One round of Community Scorecards was carried out in 2010, sampling 12 District Councils, with the intention of being annual. If coordinated by LDF, there would be a conflict of interest, so District Teams were created to be led by civil society, especially staff from the NGO NICE. The intention of Scorecards was seen not for naming and shaming, but for learning and improvement. LDF developed manuals, more recently adapted by EPD for a 2014 pilot for the Local Economic Development Project. Scorecards generated excitement in communities, but they were recorded on flipcharts and not followed up. LDF was interested in developing an IT platform for CBM, which Kalondolondo would take up, but this never happened. MASAF 4 has included a strong Social Accountability element, which could support innovation that would avoid the current elite capture of data. LDF has no legal mandate for handling grievance and corruption complaints, which undermines the credibility of its support for CBM.

Arising from earlier plans of EPD M&E Division for community based monitoring, a project funded by DFID under CONGOMA with PLAN and ActionAid was initiated in 2008, which evolved into the current Kalondolondo project, which is now operational in 24 out of the 28 Districts working with 43 NGO partners. Some see this as being a fault-finding mechanism, although improved by holding community and service provider inter-face meetings where solutions to problems in service delivery can be openly discussed. In some Districts relationships between Kalondolondo and the District authorities is good, such as in Nsanje, where the DC has asked for reports on progress in implementing LDF projects. However, Kalondolondo and its implementing partners need to be transparent about their own accountability. This could be improved by broadening the partnership to include academic social research and statistics resources and religious networks such as churches, particularly CCAP, with reach to community level, and to MPs, Councillors and chiefs. Any community based monitoring must be integrated into the national M&E system, collaborating with District M&E officers and aligning indicators. Such community based monitoring must become “bottom-up”, rooted in local communities and accountable to them and feeding back responses to them, reforming the current Kalondolondo approach that is controlled by a CSO at District level. Communities “hold” a wide range of data that is never recorded or uploaded into the national monitoring system, such as the functionality of water points, children immunised, maternal deaths, teacher attendance, basic learning outcomes etc. They know what is important to them and what counts in their lives.

What is required for inclusion of community based monitoring in the national M&E system, is a fundamentally more radical approach by which Kalondolondo and its partners become catalysts with an extremely low profile that truly enable communities to themselves design and monitor the development agenda according to priorities that local communities define. This has been achieved over the past 15 years in Rwanda through its *Ubudehe* participatory approach to development, starting from a point where, historically, development and authority as entirely top-down, culminating in orders to commit genocide. Today, every one of Rwanda’s approximately 10,000 villages can use Scorecards to analyse services and display its own map, drawn on cloth, that shows every household and its resources and level of poverty, offering a transparent community agreed database for social protection programmes and health and education initiatives, backed by EU grants of EUR€1,000 each year for development programmes

designed by the village[21]. The Rwandan experience has much to offer Malawi in achieving decentralisation that empowers communities. In re-designing the Kalondolondo community based monitoring programme, the Rwandan experience can be adapted to Malawi's conditions. Like Rwanda, this should be rolled out incrementally, starting in possibly four Districts and reaching to all T/As in those Districts and then progressively to all District and all T/As, using a cascading training empowerment methodology and a light touch central Secretariat. NSO and University departments of statistics and of sociology can be involved in validating the generation of statistics from such community based monitoring. The University can also provide an independent auditing function for the triangulation of MIS, survey and community based monitoring data, which would be presented in annual District Statistics Days as part of annual district reviews, which currently occur in some Districts, such as Mchinji. Taking on genuine empowerment of communities at village level, as has occurred in Rwanda, would require developing skills in the implementing partners that may yet need to be developed[22].

Kalondolondo currently trains all partners to use a standard approach and reporting format for measuring community satisfaction on a scale of 1-5 against performance indicators for each service, based on entitlements and service charters where the latter exist. Kalondolondo reports are sent to the District Planning Director and/or the DC for sharing with the District Council or to the DHO if a health report. No coherent collation of community based monitoring reports exists, although Kalondolondo keeps hard and soft copies of all implementing partner reports. These are not available on any single database, web-based or other, and Kalondolondo does not maintain a website. Reports are essentially ad hoc and culminate in inter-face meetings between communities and service providers. Some reports are available on implementing partner websites[23]. The lack of systematised CBM reporting and analysis across the country reflects a weakness in the vision of Kalondolondo as a means for empowering communities to manage their own data and report on this as a partnership to improve efficiency and effectiveness of services affecting their lives. Use of specialised software for qualitative data, such as QDA Miner and its associated free QDA Miner Lite, NVivo, Atlas or Ti, can enable CBM reporting to be less ad hoc and capable of real-time analysis for administrative purposes of service correction. Current reports are not available on any web-based system.

However, data flows should not be simply one-way and upwards. As one DC put it: "There is a need for an M&E system that feeds back to communities". It is also important that communities should monitor the responses to the reports that they make. Currently Kalondolondo acts simply as a civil society watchdog on government programmes, lacking real empowerment of communities.

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[21] For more information on Rwanda's Ubudehe approach see, for example, UN Public Service Award 2008 pages 10-17 of http://unpan1.un.org/intradoc/groups/public/documents/un/unpan034191.pdf and Sam Joseph describing 3rd generation Participatory Poverty Action/Assessments (PPAs) in Feb 2008: "Ubudehe: Creating Spaces for Citizen Participation in self governance, poverty analysis, local problem solving and sector/district planning".

[22] Community indicators, disaggregated by sex where possible, that could be monitored through CBM might include: pupil and teacher attendance; primary school leaving exam results and progression to secondary school; literacy; WASH indicators on hygiene, sanitation and water point functionality; occurrence of fevers, diarrhoea, maternal deaths, child and infant deaths; immunisation; agricultural production and prices; cost of transport to nearest health facility, rural hospital, district town; reported theft and homicide cases.

[23] e.g. a report on PMTCT: http://www.aecdm.org/phocadownload/aecdm%20kalondolondo%20narrative%20report.pdf; summary of findings of Lilongwe District report on impact of the Community Service Investment Programme: http://www.yecemalawi.org/kalon.html. However many implementing partners simply report on the Kalondolondo work as an activity, with little indication of findings.

Box 2: Triangulation & District Statistics Days

Triangulation is a technical term, abused by many researchers referring loosely to checking one source of data with another. "Triangulation is a surveying method that measures the angles in a triangle formed by three survey control points. Using trigonometry and the measured length of just one side, the other distances in the triangle are calculated. … Each of the calculated distances is then used as one side in another triangle to calculate the distances to another point, which in turn can start another triangle" (ICSM). By this means, the height of Mount Everest could be determined within a few feet a century before it was climbed.

For national M&E systems, triangulation refers to the use of three sources of data to determine an accurate picture of the reality of something being measured using (i) MIS administrative data; (ii) surveys, ranging from the Census through regular national and commissioned issue surveys; and (iii) Community Based Monitoring (CBM). Triangulation involves reconciling these sources to provide a 3-dimensional picture. Where there is significant divergence, an independent audit of the data should be initiated that can assess whether this is a result of technical differences or of deliberate distortions, possibly caused by perverse incentives to prove exaggerated performance. No performance system can be reliable without such triangulation.

This triangulated evidence can be brought together in Annual Review Weeks, as currently take place in Mchinji District for example, or in an annual District Statistics Day, where good practice can be recognised and shared with other Districts and potential for improvement identified in a transparent public meeting with officials, elected representatives and community leaders.

Intergovernmental Committee on Surveying & Mapping (ICSM) – Government of Australia
http://www.icsm.gov.au/mapping/surveying2.html

The Malawi Health Equity Network (MHEN) through its individual and organisational members analyse the District Implementation Plan and track actual expenditure, producing unpublished reports in order to help Districts to deliver better on health. MHEN has carried out a number of Service Delivery Satisfaction Surveys through their partners trained in use of a standard reporting format, interviewing a sample of household heads (~ 1,000) and of health workers (~ 120) with over 50 Focus Group Discussions with District Health Management Teams and with communities. In 2008, there was a national survey and, in 2010, a sample survey, with another national survey planned for 2015. From their work, they consider that District data is poor with collectors not motivated, encouraging them to "cook data". MHEN consider that Malawi lacks strong M&E and analysis, resulting in failure to meet the MDGs, but that the Health Sector Review Group, of which MHEN is a member, works well with evidence. However, MHEN fails to carry out analysis of needs, services and outcomes across the country. Although there is plenty of data in the health system, it is little used or analysed and there is no flow back of data and analysis to communities, who remain in ignorance of what the health service could achieve.

Strengths: Capacity building for community participation in development; inclusion and coverage; challenge for MIS data quality;
Weaknesses: CBM not integrated into GoM M&E system; currently too adversarial; choice of data to collect is ad hoc; questions over current reliability and timeliness of data;
Opportunities: If systemised and integrated into overall government M&E system, will permit triangulation and independent performance monitoring; increased accountability; Potential to build capacity of VDCs and ADCs; software available for analysis of qualitative data from community reports; agreed CBM indicator set;
Threats: Failure to develop an advocacy strategy based on partnership and finding solutions.

4.14. District Databanks

The Malawi Integrated District Databank, which is essentially an offline Microsoft Access driven database with a desktop user interface, was developed in Visual Basic. Issues raised with maintenance of district level databases include:

- Inadequate budget support from central government;
- A lack of mandate for M&E officers placed in district councils. Line ministries see themselves as doing these cadres a favour when they supply them with M&E data;
- The quality of the database is weak - The Microsoft Access Database itself is not secure, although users have to log in. Under the former multi-donor Joint Programme for Support of M&E (JPSME), each District developed its own District Databank. Data is stored on a computer hard disc in Excel or Access, which proved vulnerable to power surges and other failures, such that 4 out of 5 Districts visited had lost all the data some three or more years ago.

In developing District Development Plans, linked to MGDS, Districts simply generate afresh any data required, which is not stored in soft copy. District Databanks should be web-based and linked to a central M&E system.

Strengths: One-stop for all District data; collects primary data; imports pivot tables[24] from other MIS;
Weaknesses: Not web-based, stored on computer hard disc vulnerable to power surges; generally no longer functioning; require manual data entry from sectors; overall lack of reliable, accessible and timely data accessible to policy-makers; uncooperative data sources;
Opportunities: If available on IPMIS and updated, will meet demands for District data from elected Councillors; potential for inter-District analysis;
Threats: Inadequate budget from central government and MoLGRD; Delayed submission of sector data.

4.15. Overall Capacity

Currently all the MIS fall short of ideal, although IFMIS and HMIS, within the limitations of their lack of integration and weak public access, fulfil four key components of a good management information system, of:

- Hardware (including both computer hardware at district levels and paper-based filing systems at lower levels);
- Software (including database software and interfaces such as web pages that are used to access collected data - the data that is collected from primary and secondary sources and used to generate information for decision making),
- Policies and Procedures that govern access and use of data; and
- People (individuals, groups, or organizations) with interlinked relationships, but can generally be divided into managers of the MIS and

[24] A **pivot table** is a data summarization tool found in data visualization programs such as spreadsheets or business intelligence software.

users of the MIS.

The M&E management information system should provide the basis for information to be analysed and facilitate strategic and operational activities. Currently, it is the view of the Consultant that PSIP, albeit with appropriately modified DHIS2 software, offers the best model for developing a public-access, fully integrated system of real-time data that enables evidence-based decision-making at all levels (see section 7 below for a fuller proposal for IPMIS).

4.16. Parallel Systems, Segmentation and Fragmentation

Sector ministries operate their own hardware and software and the systems are not integrated or capable of analysis outside their own M&E departments. With a range of donor-supported projects and programmes within a sector, there have even been problems integrating sector MIS within a particular ministry, which was initiated in Health a decade ago. At the time, the consultant who designed Malawi's HMIS using DHIS software wrote that: "*… local analysis and local use is the primary purpose of collecting information. The health passport, service specific Registers, data aggregation and monitoring tools, integrated supervision checklist and district implementation planning format are designed for the immediate use of information at the point of collection. Despite emphasis on maximizing the use at local levels, the traditional thinking of collecting data only for reporting purposes is still deeply rooted in the system. Some facilities still consider the submission of reports as the ultimate aim of the information system. Efforts are being made to encourage participation of civil society organizations in planning and monitoring of health services at local and district level. Routine community surveillance findings are shared with village health committees, while the quarterly performance reports of health facilities and districts are shared with heath facility committees and district assemblies*[25].

Similar data may be collected concurrently by communities, service providers and NSO statisticians. Sectors and Districts, despite District M&E Committees that vary in their ability to coordinate and the lack of database links and common software, create parallel systems of administrative data and indicator uncertainty. The flow of data is fragmented and there is no overall management. EPD, Budget Division and OPC have to collate data from the various ministries, often by physically collecting reports from each sector. Development Partners frequently commission, through independent consultants or through NSO, surveys to meet their own data needs, undermining the under-funded NSO and potentially distorting its Calendar. NSO needs to rationalise its range of surveys to reduce the number of heavy surveys and provide a more predictable range of survey data that can track trends on key indicators.

In reviewing the systems currently in use it is clear that there is almost no collaboration on the specifications and requirements for MIS between different actors. What this frequently means in real terms is over-expenditure on quality hardware and expensive software that is then managed by under-resourced staff with inadequate training and incentives.

The MIS cannot be looked at in isolation as, for it to be effective, the people and processes around it must be actively involved. The best model for MIS is demonstrated by the team behind PSIP where the software has been developed

[25] Chet Chaulagai et al, 2005. Design and implementation of a health management information system in Malawi: issues, innovations and results. http://heapol.oxfordjournals.org/content/20/6/375.full.pdf accessed 15-9-14

in-house with international experts working in tandem with Malawian IT staff from the E-Gov common service for IT. The software itself is a MySQL database with a PHP front-end that is both scalable and easily configured for purpose. The hardware is hosted physically at the Development Division in MoFEPD and plans are underway to migrate the host OS (operating system) from Microsoft Windows to Linux, a more cost-effective and stable alternative.

4.17. IPMIS

The proposed IPMIS could draw on the PSIP model, hosted at EPD, using DHIS2 software modified to cover more than health data and replicated to servers at both the Accountant General (IFMIS) and NSO. Technical support and management and training would come from the E-Government IT common service. With a properly built and administered back-end, customised tools can be utilised as close to the source of data as possible via simple applications deployed on entry-level and affordable smart mobile devices[26]. The objective will be to collect as much raw data in real-time as possible. This portal would then present the information in a variety of ways depending on how the person accessing the data prefers to see it. The IPMIS will also provide a platform for interval (quarterly/half-yearly/yearly) reviews, generating automated reports which allow reporting of progress against the annual targets and results ascribed in the MGDSII results matrix. Data entry will be carried by established focal M&E focal points in institutions, through a web-based self-registration process, followed by authorization. This part would be administered by M&E Division. The M&E National Coordinating Committee could be empowered to agree with sector ministries in advance those few key incontrovertible indicators, based on agreed national development strategy (e.g. MGDS II) or global strategy (post-2015 agenda) or indeed sector strategy to which Malawi has committed, which will be collected and entered real-time at source for generation of automated reports at national and District levels. This could prevent political or administrative interference with data realities. Existing MIS would be integrated into the IPMIS, ending the current isolated systems through providing web-based flow of data to IPMIS as a one-stop portal for data.

IPMIS can also be used for preparation and planning of OPAs, which would be a module that the PED would administer. By drawing on effective CBM reports available on IPMIS, PED would no longer need to carry out its own ground-truthing to check that organizational performance is having positive impact at community and beneficiary level. If the PBB goes ahead, IPMIS could be used for planning of programme budgets, which would be administered by the Budget Division. A previous iteration of this platform is in use at the MoH.

Strengths: As a result of providing one-stop for all administrative and development data enabling link between budgets, expenditure, outputs and outcomes; wide public access to a breadth of data and access to real-time data; customised public portal developed locally with open-access software and range of user rights;

Weaknesses: maximum effectiveness enhanced by smart-phones with budgetary implications; connectivity issues in Malawi[27]; sustainability and scalability in the long term without strong political and administrative backing; staff capacity to be developed;

[26] Software costing in the order of $500,000 can be balanced against the cost of approximately 3,000 smart phones providing about 100 across key sectors at each district or about 7 smart phones for each of the 444 wards (reduced from the 861 Wards in the previous 2000 elections through the Electoral Commission Amendment Act 2010, in which Blantyre, Lilongwe Mzuzu and Zomba contain 30, 30, 15 and ten wards respectively, while all other parliamentary constituencies contain two wards each.

Opportunities: Enabling strong analysis; increasing M&E utilisation and demand for data, especially from elected representatives in Parliament and Local Councils; link to community based monitoring; link to NGO programme data; link to OPAs and performance analysis; increased accountability and informed public, providing two-way flow of information; agreed standard indicators and data sets; Potential to meet all the criteria of the Vision for an integrated information system of web-based flow of quality reliable, accessible, timely and relevant data and indicators, drawing on front-line registers and CBM, with automated reports; Enhanced role for District M&E officer; Platform already in use at MoH, indicating tacit approval of the use of open-source software;

Threats: Lack of administrative and political will for M&E and accountability leading to inadequate budget; cannot publish automated data without line ministry approval;

4.18. Real-time Monitoring

Malawi is the first country to take up a challenge issued in 2013 by the principals of UNFPA, UNICEF and UNDP to identify ways for UN country teams to change and innovate in the ways in which results and their monitoring are supported. In 2014, the UN in Malawi decided to adopt a more innovative and effective approach to monitoring, bringing information and results to the fore in real time, thus allowing for more adaptive and responsive programming. The goal is to build a culture of managing for results within the organisation, through a real-time monitoring framework that provides data and analysis for decision making on a frequent basis. The framework is not formally part of the Government M&E system but it is built upon existing data sources of which the majority are often Government owned/led, and in the short to medium-term, the goal is to integrate this approach of frequent collection, analysis and dissemination of data into the national and/or sector specific M&E system. In the long-term, the real-time monitoring system of the UN Malawi will be publicly accessible in the form of a dashboard. This will allow public scrutiny of the UN's efforts in the country as well as serve as a data hub that contains key development indicators for the citizens of Malawi. While information flow in real time is the medium-term goal, the UN in Malawi has – as a first step – designed the monitoring framework based on data that is updated monthly or at least quarterly. The framework identifies key indicators in each of the UN's programme areas as set out in the UNDAF, as well as strategies for collecting and analysing the data related to those indicators.

The real-time monitoring framework is part of the UN's broader efforts to meet the challenges of a complex and rapidly changing world. To know what we need to know involves a deliberate and systematic effort to speed up the processes of making essential information available in real time. It is not sufficient to wait for a year or longer to know if an approach works or not: testing innovations requires rapid feedback loops for quick action and adjustments. More frequent data on Malawi's most vulnerable citizens - like nutrition, health and food security - also allows the UN and the Government to quickly identify bottlenecks, districts or groups of people that require immediate assistance.

Strengths: Policy decisions based on up-to-date data; Public access;
Weaknesses: Initially only within UN programmes;
Opportunities: Identification of bottle-necks, districts and groups of people requiring immediate assistance; piloting rapid collection approaches;
Threats: Opposition to initial parallel system.

[27] E-Government is in a position, working with development partners, to negotiate innovatively with the private sector for deals that could, at minimal cost, provide 3G connectivity, possibly free of rental cost, for Districts in return for limited period tax breaks or interest payments on loans for guaranteeing investment for connectivity in advance of demand, giving the lowest bidder for such service provision a market advantage that will remain for years to come.

4.19. Towards Integration: Identifiers of Facilities, Locations and Clients

Interoperability between the different MIS has been explored with the best-fit conclusion being that of CSV (comma separated values) exports that can then be easily imported in the other MIS. However, this still leaves the problem of being able to accurately track data, drilling down to the level required. This may be possible using an automatically generated common identifier (ideally generated at source) that can then be used when statistical analysis of the raw data is conducted in order to produce the kind of useful information required for the purpose of M&E.

In order to enable inter-operable systems and inter-sectoral analysis, data requires these clear identifiers that include administrative catchment areas, such as District, Constituency, Ward (and possibly Area and Traditional Authority – T/A[28]) and Village and possibly GIS coordinates that will enable analysis by location and mapping of facilities and of output and outcome indicators. Currently there are ad hoc identifiers in use, for schools, for pupils (linked to school of first enrolment), for health facilities and individual health passport booklets (child, woman and general) and for FISP vouchers. The pilot cash transfer schemes, as in Mchinji or Balaka or for adolescent girls in Zomba, do not have a single central registry, recognised as essential for any national social protection scheme. Locational identifiers should allow for future administrative divisions such that a Zomba District identifier of, say, 280 could become 281 and 282 if the District later divided, permitting aggregated comparisons with the earlier undivided District.

The importance of standardised identifiers is critical to integrating systems between the IFMIS and the AMP and the PSIP and the new IPMIS. A working group under E-Government, with participation from sectors, districts, IFMIS/AMP/PSIP and the NSO should agree a system of standardised identifiers as soon as possible and introduce this into all data collection.

5. Enhancing Data Collection, Quality and Processing

5.1. Constraints on Data Quality

Data are currently collected at facility level by service providers and forwarded through Management Information Systems (MIS) to sector ministry headquarters, as well as by communities through Village Development Committees and collated by Area Development Committees (ADCs)[29], in Districts where these are functioning in line with the guidelines, for onward submission to District Planning Departments and through them to District Councils. The administrative data collected has a strong project and programme approach, strongly driven by donor interests. There appear to be issues with the quality of data, and District M&E Officers, who are not trained Statisticians, have to manually collect reports from sector M&E focal points, who have other responsibilities, in order to extract

[28] Given the political tendency for administrative bifurcation to meet local demands, it would be important to include an extra digit in these identifiers to permit possible future bifurcation that allows contrinuity at a higher level with a previous area location e.g. 430 splitting into 431 and 432 for each level of District, Constituency, Ward and T/A. This will allow for continuity of data analysis over time.

[29] The VDC (Village Development Committee) is the umbrella organization covering between 6-12 villages, with all other sub-committees (e.g. Village Health Committee, Village Natural Resource Management Committees, Home Based Care Committee, Project Management Committee, etc) affiliated to it. The Area Development Committee is formed of representatives of each of the VDCs which it covers and it then constitutes an Area Executive Committee, which works with the District Community Development Office. The link between electoral Wards and adminsitrative Areas needs to be explored before determining the lowest level at which data should be diaggregated.

information for their own District reporting and entry into Access or Excel sheets or the District Databanks, where these still exist. The Health MIS has been funded to provide trained Assistant Statisticians from the Statistics Common Service under NSO at District level to lead the HMIS at the interface between front-line health service workers and their administrative registers and the national web-based HMIS. However, quality of data remains a challenge at the technical level. For example, HSAs focus only on under-fives and, since only a few have been trained to carry out MRDT (Malaria Rapid Diagnostic Test) malaria tests, treat all fever as potentially malaria, while passing all over five years to the nearest rural hospital for treatment, which they may not seek due to distance. Thus, on the one hand, malaria among under-fives is likely to be over-reported and for over-fives under-reported. The **EPOS Project** is about to carry out data quality assessment in the four Districts of Mchinji, Dedza, Ntcheu and Balaka over the coming 18 months before rolling out to all Districts.

Box 3: UNICEF Mobile Reporting Experience

UNICEF has been piloting a mobile reporting system in Malawi with Community Victim Support Units and has experienced challenges in operationalizing the system and getting quality data. An evaluation by the UNICEF global innovations unit suggested 5 lessons, applicable to the pilot mobile phone community monitoring of teacher/pupil attendance being supported by the Norwegian Government:

1. Data collection/monitoring should not be the exclusive goal of an ICT system. Data collection should be a result of data entry for a particular purpose.
2. There must be a feedback loop within the ICT system – it is a 'communication' tool implying two-way communication. If one-way communication is envisaged, it is likely to be unsustainable.
3. ICT interventions require strong supervision and managerial oversight.
4. Data entry is most effective with an educated cadre of staff.
5. ICT interventions are designed to improve, not fix, a programme or system.

Ideally therefore, District Education Managers should receive information from and provide feedback to head-teachers, who should also be given incentives to input. Essentially, ICT for pure monitoring tends not to work. There is more buy-in if the intervention supports learning and teaching as well as monitoring. Incentives can be restricted to only those schools and teachers whose performance can be measured through the ICT programme.

Currently, there are perverse incentives in EMIS reporting, where school principals may look for increased resources in terms of budgets and textbooks if enrolment is over-reported. MoEST is at an early stage of developing a system of community monitoring of teacher and pupil attendance and the Norwegian government is looking at supporting such a mechanism through mobile phone reporting. EMIS only takes account of limited aspects of the current school registers held in each school, particularly start of year enrolment and qualified/unqualified teacher deployment. However, the register also contains data on stage learning attainments and on Standard 8 PSLCE (Primary School Leaving Certificate Exam), which are released by MANEB (the Malawi National

Examination Board)[30]. This data, invaluable for analysis of school performance based on learning outcomes compared between schools and districts, is not currently automatically available through use of web-based software generating automated reports as is possible for HMIS, despite being in the paper registers and the use of individual pupil identifiers which will shortly be used in all school records and exams. The introduction of digitised registers incorporating learning outcomes would immediately remove the current perverse incentives for excessive reporting of enrolment. MoEST currently has no knowledge of the total of school-aged children in its catchment area and of those attending schools outside the catchment area or not attending school. This may largely explain the impossible record of net enrolment rates (the percentage of children of a particular age in the catchment area, who are enrolled in the right class for their year) exceeding 100%.

Agricultural data is particularly weak as extension officers are not trained in robust statistical approaches to agricultural data measurement and data collected is not available real-time. Whereas public expectations of health or education outcomes are low, agricultural issues affect every household and the rural economy continuously and are therefore highly political, resulting in many complex incentives for inaccurate reporting. The FAO-MoA Country Programme Framework (CPF) for 2010-2014, Area 2, included strengthening of agricultural statistics through accurate data collection and reporting, and supported NSO with CountrySTAT, but Malawi data on this international website has not been updated recently, although key stakeholders met in July 2014 to seek to update the entries[31]. MoA would want NSO to lead on data collection and management.

5.2. Motivating Data Collection

Preliminary discussions with M&E officers within the MoF and at district level show that, on the positive, there is a real impetus from senior government officials and donors to collect good quality M&E data on a timely basis. Government's commitment has been shown by allocating budget lines for M&E, and ensuring that positions for M&E exist in all sector ministries and at district level. However, it is evident that M&E resources are inadequately allocated; M&E officers (especially at district level) do not have adequate technical support nor have they been adequately trained; District M&E officers (and MISOs) have no career progression and their posts have yet to be established under the Local Government Service Commission; and most sector departments still collect their own M&E data without the involvement of the department of M&E within MoFEPD and their advice on integrating sector M&E systems into the national M&E system. Checks made on databanks and tools used at district level show that District Databanks are likely to be defunct; the systems put in place are not currently fully utilised; have some inconsistencies (for example data is entered in Excel and Access interchangeably); and that data is collected for sectors that are

[30] For 2014, MANEB relaeased that out of 259,251 candidates who sat for this year's Primary School Leaving Certificate of Education examinations, 160,966 have qualified for the award of the Primary School Leaving Certificate of Education and that 67,467 out of the 160,966 candidates who have passed have been selected to various public secondary schools throughout Malawi (i.e. only 26%) - See more at: http://malawi24.com/maneb-releases-jc-pslce-results/#sthash.JEClHgYP.dpuf- See more at: http://malawi24.com/maneb-releases-jc-pslce-results/#sthash.JEClHgYP.dpuf

[31] See the Malawi data on http://www.countrystat.org/home.aspx?c=MWI which states that *CountrySTAT gathers and harmonizes scattered institutional statistical information so that information tables become compatible with each other at the country level and with data at the international level. The main objectives are to facilitate decision-maker's access to information and to bind data sources that are currently spread throughout the different institutions. The CountrySTAT approach is based on the application of data and metadata standards of FAOSTAT and GAUL (Global Administrative Unit Layers). Many countries have shown interest and are adopting it into their national statistical system. Furthermore, CountrySTAT is accompanied by a capacity-building strategy at country level to make the system sustainable in the long-term. CountrySTAT is networking with FAOSTAT and other sister information systems like FENIX.*

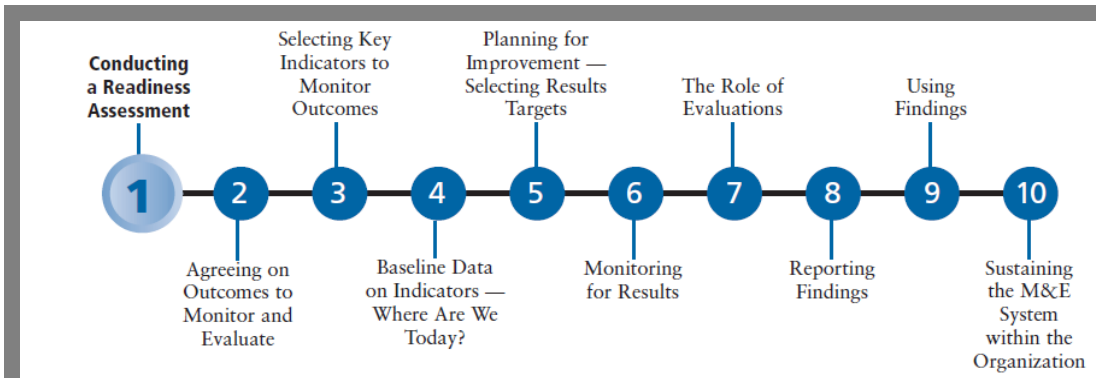
able to provide funding support for M&E. Some support for district level M&E data collection is received from NGOs on an ad-hoc basis.

Similar to District M&E Officers, District MISOs (Management Information System Officers) generally lack career security and progression. The roles of the MISO at District level need to be clearly defined and established as will be done with those of the M&E officers. MISOs administer the MIS at local assembly level and are the first point of contact for support. Only 9 MISOs are currently established and all new recruits are non-established. If the Ministry of Local Government is unwilling to do this, MISOs could be established in the IT common service under E-Government.

Collection of good quality primary data requires a data collection cadre that is mentally and physically ready and motivated to accurately collect what is required. District M&E Officers are not holding established posts and lack career progression; lack transport for field-work (formerly provided with motor-cycles under the JPSME programme); have no access to the PSIP web-base or other; and are peripheral to the District Management Team. An exception to this is in Zomba, where the new DC, on arrival in post, informed all sector department heads that he would not release the following month's budget until the previous month's report had been submitted to the DC through the M&E Officer in order for the M&E Officer to check all data provided. This immediately brings the M&E Officer from the periphery to the Centre.

5.3. Ideal Data Collection

In theory, before M&E data can be collected, the overall plan should be directed by the need to report on results, and should include all the necessary stages of building a good results-based monitoring system[32]. In this assessment we used the framework proposed by the World Bank (Ten Steps to a Results-Based Monitoring and Evaluation System) to check where Malawi is in relationship to the proposed ideals.



Ten Steps to a Results- Based Monitoring and Evaluation System[33]

The consultancy has considered the different data collection and processing activities conducted by the national M&E system at national level and in selected districts. The interest has been to check how data collection practices are influencing existing data, and how in turn, this is impacting available M&E data

[32] See for example, Jody Zall Kusek and Ray C. Rist, "Ten Steps to a Results- Based Monitoring and Evaluation System" World Bank, 2004

[33] Similar ideas are expressed in the UNDG Handbook for Results Based Management (RBM), which has been used as a sourcebook for RBM in Malawi.

and its use by stakeholders. The checklist against which systems in use have been assessed include:

- Systemise data collection and employ standard tools and principles that deliver credible data with known or calculable margins of error: – *only NSO surveys meet these criteria and sector registers cannot be confident of coverage rates as services remain passive*;
- utilise various tools and techniques of data collection that are able to protect both providers of data, as well as collectors, but ensuring basic principles of objectivity, representativeness and adequacy: - *the planned link of Ministry and agency performance data to OPAs is not matched by robust systems that ensure the independence of data collection*;
- formulate and utilise questionnaires, schedules, manuals and equipment that minimise the need to collect unnecessary variables (thereby increasing efficiency) and maintaining focus on intended need for collected data – *the registers at facility level offer opportunity to rationalise relevant data collection for analysis for appropriate planning, Value-for-Money and Effectiveness monitoring*;
- utilise standardised coding systems to ensure that collected data can be integrated with other datasets, and where necessary, be updated. Increasingly, datasets are geo-referenced to enable spatial and traditional statistical analysis – *Malawi lacks a coherent data locational and beneficiary identifier system that can link survey and MIS data and triangulate these with community based data*;
- Provide meta-data about each dataset to enable future use of the same dataset as secondary data – *The NSO website http://www.nsomalawi.mw/data-archives.html provides useful meta-data in line with international standards*.

Overall, Malawi has a range of systems operating in part but not functioning as a whole. Utilisation and demand is weak and quality and regularity of the supply reflects the weak demand.

5.4. Metadata

Good practice in data collection dictates that an MIS builds in a system for managing meta-data[34], which provides for a summary of all data sets available and their contents and would include records of the timeliness and completeness of data collection and reporting and the circumstances in which it was collected. This seems to be largely lacking in current MIS data. For example, education data do not expect to note the presence of food aid distribution or a disease outbreak that could be affecting attendance.

5.5. Surveys and Registers

The NSO is responsible for national statistical surveys, producing more robust data but, due to resource and other constraints, is slower and less predictable, often responding to donor interests that support parts of their scheduled work at the expense of unfunded areas. Effectively, the NSO, mainly, but not exclusively, creates official statistics based on surveys, and the Line Ministries mainly, but not exclusively, create monitoring information based on routine administrative data collection.

[34] Meta data refers to information on a dataset, including what was collected, when, how and other issues that help to explain its quality.

There is an immense pool of data collected at facility level and point of service, including export/import data at border crossings, through registers that are manually maintained. Only a fraction of this data is reported upwards, mostly aggregated, which loses its potential for analysis. Registers range from the National Register of Births, crime registers, tax and revenue registers, maternal/child/immunisation/OPD and other health registers, school registers etc.

5.6. Digitising Registers

Malawi maintains many registers at facility and point of service levels, such as school registers; OPD, maternal and other health registers; FISP register; Birth register; as well as border control registers and import/export registers, etc. In principle, pilots in Malawi have shown that it is simple for the officer (doctor or medical assistant) in charge of, say, a hospital OPD to make a digitised entry of a person's identity and injury or cause for seeking treatment, just as is currently kept manually entered in a book (register) at OPD. This digitised record would then immediately be readable by software at MoH to generate reports, while conserving patient confidentiality. Maintaining manual registers and then extracting and aggregating data into further manual records which are then uploaded into computers, only some of which are web-enabled, is a time-consuming and error-prone inefficient process, totally unnecessary given modern technology and connectivity that has changed Malawi over the past 5 years or so. Now is the time to progressively lower the level of digitisation where possible to the level of registers themselves, including the National Registration Bureau in OPC, responsible for the National Registration & Identification System. This will enable automatic computerised checks on entry errors, reduce transmission errors, increase speed of reporting and enable immediate automated reports of primary analysis of the data. It will also separate the roles of data entry and data analysis and create a secure boundary between these roles through differential access rights.

The digitising of registers can be achieved without complication and through a relatively modest investment in low-cost Smart phones[35] uploaded with sector Apps, with free transmission of reports provided by competitive tender and corporate social responsibility interests of a mobile service provider. Already MoH and MoEST are piloting such approaches using smart-phones. The impact of this investment in enabling a functioning real-time M&E system would be clear value for money in the post-Cashgate environment. The cost of not doing it is prohibitive – the price of Cashgate!

6. Proposed Vision and Strategy for the Malawi Context

6.1. Vision

As a result of discussions held through this assignment, we propose that a Vision for an M&E system for Malawi should be for “an integrated information system of web-based flow of quality data, disaggregated to reveal inequalities and drawing

[35] Capital outlay of $300,000 and 20% replacement costs of $60,000 p.a. would provide 2,000 smart phones at $150, to be used by, say, 300 Agriculture enumerators; 400 PEAs; 1,000 Senior Health Assistants or HSA supervisors and Hospital Department Heads; 300 District Planning Directors, M&E Officers, Water Engineers etc; 50 MRA officers at border crossings; etc. Together with $400,0000 to provide 20 Apps for different sector uses would result in an empowered real-time M&E system for well under $1 million. Appropriate hardware at very low cost might be obtained from Xiaomi from China or from Tecno from Hong Kong, whose primary focus is the emerging African market. Malawi is small but strategic enough to provide companies with loss-leading regional market entry. However, the requirement for a smart device is not as critical if IPMIS is built on the DHIS2 platform as it has an SMS form builder.

on front-line registers and community reports, genrating automated reports openly accessible to central and sector ministries, Parliament, local authorities, the media, academia, civil society and communities for analysis for policy and programme design, resourcing, implementation, monitoring and correction and evaluation of organisational performance".

The emphasis should be on reliable, accessible, timely and relevant disaggregated data and indicators that show progress on important national programmes and projects and their contribution to inclusion and equity. Such data should be reliable - it should show the status quo without bias, and not subject to manipulation or misrepresentation. Key national programme indicators need to be readily accessible to policy makers in government, parliament, private sector and academia, and also to media, civil society watchdogs at all levels from grassroots to central government. Timeliness is an important factor: the ideal being real-time monitoring. Developing relevant key indicators is an art that should be facilitated by experts with participation of a broad spectrum of stakeholders. The Millennium Development Goals, for example, though relatively few, sought to adequately reflect progress towards better livelihoods for the peoples of the world and the post-2015 agenda has been discussed at all levels from communities to the UN General Assembly to agree collaboratively on shared goals.

Malawi's culture and history of patronage and lack of evidence-based policy-making and programme implementation has undermined its efforts to reduce poverty and generate a dynamic, inclusive social and economic system. There has been a vicious circle of lack of demand for evidence leading to a lack of generation of appropriate data, which in turn reinforces the lack of evidence-based decision-making. There have been vested interests benefitting from this lack of evidence. Therefore to break the circle and turn it into a virtuous circle, it is necessary to generate reliable quality data and for communities to demand responses based on the evidence. In order to turn this regressive situation around, there is a need for evidence to be at the heart of the development agenda, not its periphery as occasional reports on progress. With the dramatic change in available technology in Malawi over the past decade, there is now opportunity to follow much of the rest of Africa and to leap-frog the digital divide. The new government offers an opportunity to do things differently and effect equitable social and economic development, rather than benefitting a small elite. There is demand for an effective real-time M&E system that serves the development agenda and the need for accountability and performance. What we propose is therefore needs-driven and technology-enabled. The M&E National Coordinating Committee should lead on this agenda to put M&E at the heart of development and performance and public sector reform and deliver on a strong agenda of change as proposed in the recommendations and the time-bound Implementation Action Plan (Annex 4).

6.2. IDDATA Strategy – Integration, Digitisation, Disaggregatuion. Access, Triangulation & Analysis

In light of the assessment of the state of M&E in Malawi that follows, recognising the blockages in current practice that would prevent achievement of the Vision, the Strategy to achieve this Vision would involve enhancing Integration, Digitisation, Disaggregation, Access, Triangulation and Analysis. Integration is required to enable equity and inter-sectoral analysis, such as on public health

issues of child nutritional status, water and sanitation determinants of water-borne disease morbidity, education correlates of health and economic growth etc. Digitisation of registers will ensure greater reliability of real-time data available to policy makers and also to MoFEPD and MoLGRD for monitoring programmes. Public access will increase accountability to the public and community representatives in Parliament and District Councils and the potential for academic and civil society analysis of investment impact. Triangulation will allow increased community participation in programme monitoring and also drive up the quality of data and provide a foundation for possible performance monitoring and recognition/reward by reducing the possibility for collusion in distorting performance evidence. Providing data available for analysis will help effective evidence-based policy making through sector research departments and academia. Overall, these strategies, with the associated recommendations that will enable these to take place, will contribute to reduced opportunities for corruption in development expenditure and change Malawi's administrative culture from that of patronage to one of evidence-based policy making with increased accountability and citizen engagement and will result in better targeted investment towards poverty reduction. Such objectives fit with Malawi's current environment. The lack of access to data is part of the closed culture of patronage that sustains poor development and the environment in which Cashgate-type corruption can flourish and growth and development be undermined. Yet it is the area that vested interests are likely to resist most strongly.

In particular these five strategies would require:

- Policy:
  - Increasingly based on registers;
  - Progressively add sector MIS reports and CBM analysed data to the central IPMIS web platform;
  - Introduce triangulation of MIS; Surveys; and community based monitoring (CBM);
  - Raise access levels to enable increased data analysis;

- Institutional:
  - Quality improvement of data collection through NSO;
  - E-Government management of IT infrastructure;
  - EPD M&E Division to facilitate implementation of the strategy and system relationship maintenance

- Capacity Development:
  - Civil society capacity building of village, T/A or ward and area development committees;
  - Raise qualifications and status of M&E Officers

- Technology:
  - Progressively computerise to the lowest possible level;
  - Progressively integrate inter-operable systems and reduce silo boundaries by use of shared open-access software/hardware;

6.3. Approach to Achieving an Integrated Functioning M&E System

- Policy:

- Progressively integrate existing and evolving systems, taking note of the improvements that may be required in each;
- Progressively increase access;
- Develop protocols for user and data entry rights that assure integrity and autonomy of the system and wider access to data;
- Establish key headline indicators, for headline monitoring of progress, that can be triangulated from the 3 independent sources of MIS; Surveys; and community based monitoring;
- Develop unified system of identifiers for all facilities, locations and clients, including pupil identifiers;

- Institutional:
  - Create career progression of M&E Officers with established posts under Local Government;
  - Create career progression of MISOs with established posts under Local Government or under E-Government;
  - Promote informal network of IT specialists and professional network of MISOs (Management Information System Officers);
  - Promote professional network for M&E Officers;

- Capacity Development:
  - Phase in Districts over 3 years with 6 in first year and 11 in each of second and third years;
  - Promote community level support for M&E system, including using Kalondolondo, possibly linked to University social and statistics departments and to religious organisations with community reach and to MPs, Councillors and chiefs, for building capacity of communities for community based monitoring and reporting at Village, Area or Ward level;
  - Train for statistical and other analysis to inform policy debates;

- Technology:
  - Progressively lower the level of digitisation to facilities and ADCs and lower if possible; digitise the National Registration & Identification System of the National Registration Bureau in OPC;
  - Innovatively utilise technology to reduce potential for human error and incentives to distort data;
  - Use of qualitative analysis software (QDA Miner and its associated free QDA Miner Lite, NVivo, Atlas, Ti etc) to analyse real-time qualitative reports from communities, at least at the level of ADCs, for computer-generated reports;
  - Progressively increase automated software reports in place of human activated reports, with clear distribution plans for such reports to lead to action;
  - Develop modules for user-friendly dashboards meeting needs of variety of users – planning, monitoring, project and programme, data entry;
  - Enable district data banks to be read directly from a District module on IPMIS;

7. Proposed Data System

7.1. Requirement:

In reviewing the systems currently in use it is clear that there is almost no collaboration on the specifications and requirements for MIS between different actors. What this frequently means in real terms is over-expenditure on quality hardware and expensive software that is then managed by under-resourced staff with inadequate training and incentives.

The MIS cannot be looked at in isolation as for it to be effective, the people and processes around it must be actively involved. As already pointed out above in sections 4.3 and 4.17, the team and processes behind the PSIP provide a good model.

Interoperability between the different MIS has been explored with the best-fit conclusion being that of CSV (comma separated values) exports that can then be easily imported in the other MIS. This, however, still leaves the problem of being able to accurately track data, drilling down to the level required. This may be possible using an automatically generated common identifier (ideally generated at source) that can then be used when statistical analysis of the raw data is conducted in order to produce the kind of useful information required for the purpose of M&E.

The proposed IPMIS would therefore be built around this model, hosted at EPD and replicated to servers at both the Accountant General (IFMIS) and NSO. Technical support and management and training would come from the E-Government IT common service while administration could be carried out by EPD, rather than PED or NSO. Engaging the stakeholders in this manner will address a lot of recurrent issues and, with a phased approach, more can be brought on board as the system is further streamlined. With a properly built and administered back-end, customised tools can be utilised as close to the source of data as possible via simple applications deployed on entry-level and affordable smart mobile devices. The M&E National Coordinating Committee will need to agree what data will be collected in this way and become the basis for automated reports, as is being piloted by HMIS and EMIS and is readily available using DHIS software. The objective will be to collect as much raw data in real-time as possible, then harness Business Intelligence tools incorporated into the MIS to generate useful information that can be automatically populated onto a website portal. In addition it would be important to have a GIS platform to contextualise and communicate information so that the distribution of facilities, services and outcomes could be seen in relation to administrative, demographic and ecological areas. A reporting module can be developed that will permit users to create and export customised reports on subsets of the data held in the system, which would be invaluable for programme design and to enable focus on addressing identified priority needs. The IPMIS portal would present the information in a variety of ways depending on how the person accessing the data prefers to see it. An example would be the District Databank module where primary data captured at source could be aggregated and displayed as reports and graphs for use at the local assembly level, and by councillors and MPs. Similarly, another module would automatically populate MASEDA and provide an easily accessible alternative access option.

7.2. Rationale for a Bespoke M&E System:

Evidence suggests that the procurement of fully functional systems does not always have the desired result. IFMIS is a comprehensive financial suite with the devolved district level Serenic Navigator component capable of handling a lot more than is currently applied.

The evidence also suggests that the custom-built approach creates a strong sense of ownership through participation and empowers the users to be able to make required modifications. Governed by a proper Change Management Procedure this approach can in time yield the desired result in the most cost-effective and sustainable manner.

7.3. A possible System

The DHIS platform (a version of which is already in use at the MoH as HMIS) is ideal. First, the application database is designed ground-up with flexibility in mind. Data structures such as data elements, organisation units, forms and user roles can be defined completely freely through the application user interface. This makes it possible for the system to be adapted to a multitude of locale contexts and use-cases. It supports most major requirements for routine data capture and analysis emerging in country implementations.

Second, due to its modular design, it can be extended with additional software modules. These software modules can live side by side with the core modules and can be integrated into the portal and menu system. This is a powerful feature as it makes it possible to extend the system with extra functionality when needed, typically for country specific requirements as earlier pointed out.

The Web API complies with the rules of the REST architectural style. This implies that:

• The Web API provides a navigable and machine-readable interface to the complete data model. For instance, one can access the full list of data elements, then navigate using the provided hyperlink to a particular data element of interest, then navigate using the provided hyperlink to the list of forms which this data element is part of.

• Data is accessed through a uniform interface (URLs) using a well-known protocol. There are no fancy transport formats or protocols involved - just the well-tested, well-understood HTTP protocol which is the main building block of the Web today. This implies that third-party developers can develop software using the data model and data without knowing the specific technology or having to comply with the specific design constraints.

• All data including meta-data, reports, maps and charts can be retrieved in most formats such as HTML, XML, JSON, PDF and PNG. These formats are widely supported in applications and programming languages and give third-party developers a wide range of implementation options.

• It runs on the Java Virtual Machine, which is widely supported across operating sytems. This platform independence means that the software application can run on any operating system - Windows, Linux, Macintosh etc.

• The DBMS (Database Management System) is also platform independent as it uses the Hibernate database abstraction framework and is compatible with any DBMS supported by Hibernate, such as PostgreSQL, MySQL, H2, MS SQL Server, Oracle and many more.

• Since it is a browser-based application, the only real requirement to interact with the system is a web browser.

• Most importantly, DHIS is open-source, so the source code can be used and adapted by a technical implementer for free. To the knowledge of consultants in ACTS Consultancy and in Development Gateway, DHIS has never yet been used as an enterprise-level M&E system for a central government. However, it has the right core tools and data model and with some extensive modifications, DHIS would offer a good foundational software for the implementation of IPMIS. Malawi would be breaking new ground with an application suited to its requirements, which other countries might wish to emulate.

7.4. The System Connectivity

Connectivity needs to be addressed from the centre. While it is a significant recurrent cost, the efficacy of the IPMIS will hinge on the raw data being uploaded to the Central database in real-time or as close to real-time is feasible. The system should also make a provision for the offline collection of data.

An excellent example is that set by the Zomba District Council. They have set up a central local-access control point at the highest in the CBD. Ubiquiti Networks Rocket airMAX base stations at each of the outlying offices (DHO, DEO, DAO etc) point to this central base tower and have localized access to the main server which is administered by the MISO. The main internet connection is an MTL ADSL line. This is a low entry cost, low recurrent cost form of internet that uses existing copper phone lines to establish a digital data connection. While this setup is currently used exclusively for the Serenic Navigator IFMIS suite, the capacity exists to either host a local variant of the IPMIS database on the same server or utilize the same internet link to access a central IPMIS server in Lilongwe.

The Malawi Internet Exchange (MIX)[36] conserves upstream bandwidth by keeping national traffic entirely local, efficient and secure. It is operated by the Malawi Internet Service Providers Association (MISPA).

According to OpenSignal.com mobile network reliability in Malawi stands at around 64%. Currently, mobile telecommunications services are available to 84% of the population across 74% of Malawi[37]. TNM estimates that mobile coverage of population is 94% and of geographical area is 79%, with two operators together providing 80% coverage to the whole country; TNM and Airtel also share 25 towers and there are 8 towers in TNM's off-grid locations, with 4 expecting grid connection[38]. Mobile capture of data is therefore possible and depending on the complexity of the form being used to capture data, either a standard cell-phone, smart-phone or tablet can be used; the system has a provision to create forms that will receive data from all of these devices.

The bulk purchase of SMS bundles from one of the mobile providers for handsets issued to data capturers would be an efficient and predictable way to ensure the raw data is submitted.

7.5. The System Users

ACL-based access control is critical to the security and integrity of the data on the system. A tiered level of different types of users is required, with the super-user role only assigned to the top administrators. The M&E system should have a

[36] See http://www.mispa.org.mw/mix.html

[37] Wireless Intelligence, 2012 – quoted in a report commissioned by IFC http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/02/TNM-Feasibility-Study.pdf accessed 6 Oct 2014.

[38] See http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/02/TNM-Feasibility-Study.pdf accessed 6 Oct 2014.

public-facing page that ensures the majority of information and reports are open to users across government and in non-governmental organisations, including media and academia.

It is important that the use of technology does not usurp existing authorisation protocols. Validation protocols will ensure that all published data has been authorised by the relevant line ministries prior to being made publicly available.

7.6. The System Hosting

The hardware requirements for the system are not large and it can be co-hosted on already existing hardware at the MoFEPD. To ensure continuity and availability, hosting can be replicated to key servers such as the GWAN and the NSO.

7.7. The System Integration

While almost all the MIS currently in use have the capability to export data into generic csv formats, the more difficult task is finding a way to link data relating to particular projects, recipients or outcomes across the different systems. Retrofitting for this purpose will prove difficult, but not impossible. Moving forward, a means of tracking data across different systems is essential, and this can be achieved by creating a universal identifier that is system generated and used in all the MIS. As a mandatory field for all projects, this ID can then be used to effectively track progress against indicators and also provide insight on how regularly reports are being submitted and how current is the latest information.

7.8. The System Phases

Ideally the system should first have a prototype field test within a simulated environment before being rolled out to a test district. This will help to work out teething problems that would otherwise complicate its wholesale adoption. Full deployment would then be dependent on getting the various human resources and hardware properly synchronized followed by a phased rollout by district councils. The system itself would then go through iterations in order to improve its efficacy. The roll-out could be phased in 4 phases of 6 Districts each every 3 months, ideally over one year following the initial pilot in the 4 RBM Districts of Mchinji, Dedza, Mwanza and Karonga. MGDS and OPA modules should be developed as part of the roll-out to the initial 4 RBM Districts. A new approach to community based monitoring should be developed and piloted in the same four districts over the period January to July 2015, with IPMIS developing a window for the CBM monitoring of agreed indicators.

A key point for any modifications will be a change management process overseen by a change advisory board comprised of key stakeholders. This board could sit once a month to review proposed changes and would be on standby for emergency sittings should the need arise. It should have a Technical Sub-Group, working to the M&E Change Management Board and overseeing the adaptation of DHIS for the IPMIS and its infrastructure.

8. Analysis Promotion

8.1. Interface between M&E and Statistics

The fragmentation of M&E is compounded by its lack of statistical rigour and separation from the Statistical system. On the positive side, an Assistant Statistician posted under the Statistics common service through NSO to the Mchinji District Hospital for HMIS purposes, is working closely with the District M&E Officer in the District M&E Committee, which is developing a District M&E Framework. There would be real opportunities at District level to build capacity for data analysis to inform cross sectoral working and resource allocation to address issues such as diarrhoea or malnutrition if the various data systems were to be web-based and integrated.

Monitoring and Evaluation, by definition, essentially should enable government and its stakeholders to learn from experience on the basis of routinely collecting, analysing and reporting adequate information on its resources, actions, deliverables and their results. The primary function of Malawi's M&E system should be to provide pointers on how to do things better through a better understanding of what works and what does not. The M&E system should bring together stakeholders for information sharing and learning.

In this assessment, we have revisited the relationship between M&E and official and other statistics in Malawi, in recognition of the dependency of M&E on good quality statistics. It is important that stakeholders see this link to enable appropriate investments in public entities that generate statistics as well as those that provide M&E data required for results based management. However, there is currently weak linkage between M&E, in terms of both administrative MIS data and CBM monitoring, and statistics generated from intermittent sample surveys. Annual joint sector wide reviews, particularly in health and education, do attempt to bring together the various sources, but such data is not universally available on a continuous basis. In being used as an accountability mechanism to donors, these annual reviews can undermine democratic accountability through Parliament and District Councils, who should be the primary users of M&E and statistics, along with sector management for the purpose of service improvement.

Statistics based on good quality **raw data** are the input material used to fuel the **monitoring and evaluation** process. Access to appropriate and usable statistics and datasets should be timely, well managed, and transparent.

> *To understand God's thoughts we must study statistics,*
> *for these are the measure of His purpose.*
> ***—Florence Nightingale***

In a paper commissioned by the Paris21 Secretariat[39], Roger Edmund and Timothy Marchant show that "a fully evolved monitoring and evaluation system is much more than simply a means of tracking and measuring performance and outcomes". The focus should be on management for results and M&E should provide evidence that allows for adoption of strategic choices on the basis of past performance. This is the core of Results Based Management.

[39] Official Statistics and Monitoring and Evaluation Systems in Developing Countries: Friends or Foes?
http://www.paris21.org/sites/default/files/3638.pdf

Currently, the supply of quality data is largely dependent on external interests of donors seeking to monitor outputs and outcomes from specific projects and programmes in which they have invested, particularly in health and education and in certain aspects of agricultural production. Where there is donor investment, the M&E system is better developed in terms of hardware, software, staffing, recurrent expenditure, reporting and analysis, often with external consultancy input. When donor support ends, such as the JPSME programme, the system tends to collapse, as with the District Databanks. The NSO calendar of surveys has tended to be responsive to the availability of donor funds for specific surveys, rather than fulfilling a fully costed and budgeted programme of regular and predictable surveys and routine evaluations of programmes. Programmes tend only to be evaluated when donors require this and that in an ad hoc way in relation to the donor support cycle. The patronage nature of resource allocation militates against routine independent evaluations of the major items of the budget, especially the FISP, and reports are frequently delayed by political considerations that undermine any independence. Automated software-generated reports could reduce the political manipulation of data and support a more open system based on objective evidence.

Through a revitalised M&E Reference Group, EP&D with NSO could engage with development partners in agreeing a common stance on M&E and the generation of statistics. This would involve agreement on the principles of M&E and national statistics, such as independence, timeliness, quality, triangulation and accessibility. The M&E Reference Group meetings have highlighted a lack of any such forum where those interested in supporting quality improvement in M&E can promote shared agenda. This could be corrected by the current ad-hoc short-term M&E Reference Group being turned into an M&E Technical Working Group as part of the MGDS implementation, working with the M&E Division and across the sectors.

8.2. Triangulation of Data Sources

Triangulation is a technique from surveying that enables the three-dimensional position (location and height) of a point to be determined from 3 already known points. It is never a loose check on an indicator from another perspective. In terms of development data, it requires 3 distinct and independent sources of data: (i) routine MIS administrative data from service providers; (ii) commissioned and regular statistical sample surveys/census, including IHS, DHS, MICS; (iii) community based monitoring[40]. There need to be formal ways to effectively triangulate these three distinct data generation sources. Brought together, through sharing some key indicators in each sector that are amenable to all data sources (such as measles immunisation; educational level completed, availability of safe drinking water; food crop production and consumption etc), enhances data quality by checks on incomplete or distorted reporting. Surveys provide the most

[40] MIS = Management Information System (of each line department); IHS = Integrated Household Survey; DHS = Demographic & Health Survey; MICS = Multiple Indicator Cluster Survey. The umbrella body, CONGOMA, has been involved in the independent civil society Kalondolondo social accountability programme that has used the scorecard methodology for assessments of Water and Sanitation, the Local Development Fund, Constituency Development Fund, HIV and AIDS (PMTCT and antiretroviral therapy services), Education services and Community Savings and Investment Services. Other civil society groups seek to monitor government performance such as MEJN with its budget reviews and CSEC (Civil Society Education Coalition) formerly CSCQBE with its public expenditure tracking for education, but the World Bank noted*: As Malawi lacks an appropriate transparency policy, a major challenge encountered by CSCQBE is obtaining budget and expenditure data. In many instances public officials refused to provide information or only provided incomplete data. Further, the capacity of CSCQBE members to analyze complex education budget data is often limited.* See http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPUBLICSECTORANDGOVERNANCE/0,,contentMDK:23265534~pagePK:148956~piPK:216618~theSitePK:286305,00.html

accurate data, but they incur the highest delay from collection to analysis and in terms of regularity, although permitting periodic checks on the accuracy of MIS and CBM. CBM and MIS balance any built-in tendencies to mis-report either service failure or excessive claims to service quality. HMIS naturally under-reports maternal deaths which may occur in the community un-noticed by the health service, but these can be reported by the community and be associated with triggering maternal death audits, which would be recorded in HMIS.

When service quality is associated with performance assessments, it is essential that there is independence of reporting that removes the incentive in self-reporting to over-claim performance. In 2008, EPD was considering the possibility of introducing District Statistics Days that would enable communities, civil society, service providers and District Councils to share successes during the past year, compare results with those of other districts and propose solutions for collaboration and improvement. In addition, these public days of triangulation of data, possibly on or near World Statistics Day on 20th October, could be linked to NSO reviewing discrepancies in the three sources between indicators in terms of differences in definitions, denominators, timing etc and proposing corrections for future data collection and improved data quality.

8.3. Indicators

Currently there is no single centralised system of agreement on indicators and categories of disaggregation for which it is essential that data be collected. MGDSII Results Handbook has a Performance Monitoring Table with 81 indicators[41]. The M&E Division has developed tracker tables for the MGDS reviews with an additional number of output indicators. Overall there are about 360 indicators[42]. New projects tend to develop their own indicators, rather than contribute to existing indicator measurement in line with the MDGs and the Malawi Growth & Development Strategy (MGDS). The next MGDS, in line with Post-2015 focus on quality, equity and outcomes, will require new indicators that are suitably disaggregated by sex, age, location and, where appropriate, capable of assessing inclusion of those with disabilities, such as in educational outcomes. Indicators that enable cost-benefit analysis and measures of efficiency in terms of unit cost of outputs and measures of effectiveness in terms of a range of outcomes against a suite of inputs are generally not collected. There has been a large focus on cost of inputs and activities, together with process benchmarks.

The May 2014 report on the "Operating Environment for Program Based Budgeting" noted that there are currently three different types of policy reports are produced in Malawi:

1. MGDS Review Report
2. Joint Sector Review Report; and
3. OPA quarterly and annual reports.

It further notes that multiple and duplicate reporting is unnecessary if there were an integrated overall monitoring and reporting system. In particular, annual MGDS monitoring and reporting should be more strategic and results focused, with less attention to output level information, most notably in reporting on Integrated Rural Development where only one out of twelve indicators looks

[41] Malawi Growth and Development Strategy II (MGDS II) Results Handbook.

[42] MGDS II M&E Tracker Table Annex 2 of MGDS Annual Indicator Baseline & Targets.

beyond outputs, without any indication that rural income and investment as a result of these outputs has increased. There is inconsistency in the data collected and the purpose for which it is required. Some performance indicators in the M&E Matrix and M&E Tracker Table are not reported on in the MGDS Review Report[43].

More needs to be done to rationalise the overall set of indicators with required disaggregation, and the range of automated reports that can be generated by the software. M&E Division should work with Kalondolondo and partners in determining a core set of indicators, primarily around service delivery performance, that communities can monitor in their monthly Village/Ward/Area Development Committee reports. Specifically:

- Development of such indicators should be led by the vision of MGDS, and feed into the overall development agenda for the country. Variations in indicator focus at community level (Village/Ward/Area Development Committee) should be expected and based on local priorities, but should not be at the expense of nationally agreed targets, such as for education (e.g. pass rates), health (e.g. immunisation) and infrastructure development (e.g. distances/time to nearest health facility).
- Community level reporting on indicators should be community based, and serve the primary purpose of keeping service delivery departments to account, and secondarily, to make sure that reporting upwards feeds to the bigger picture. In addition, there should be downward flow of data on budgets and expenditure at facility level.
- Reporting at the community level should be simplified as far as possible, but include a focus on equity and inclusion. Targets should be explained in local terminology and reporting should be sensitive to local settings, including language, literacy and accessibility. For example, remote areas should not be coerced to submit reports at the same rate as those close to towns, although the frequency of reporting could be similar.

8.4. Demand for Data and Analysis

Key Government stakeholders and M&E focal points of development partners have confirmed the elements of the "political, organizational, and cultural factors and contexts" that constrain evidence-based decision making and the current post-election opportunity with "government in a position to move beyond measuring outputs to measuring outcomes" and the "incentives and demands for designing and building a results-based M&E system"[44]. Together with champions in the Presidency and ownership in OPC, this suggests the readiness of Malawi for a significant move forward regarding establishing a coherent and effective M&E system.

While sectors have varying qualities of activity monitoring and data collection, there is little programme evaluation and outcome and equity data is largely left to a choice of survey data from the decadal Census (2008); the 2010 fourth (following 1992, 2000, 2004) Demographic and Health Survey (DHS) reporting to

[43] See Section 1.1.1 of the May 2014 report on the "Operating Environment for Program Based Budgeting", which also points out that :*For example, out of 23 health sector indicators in the Tracker Table only 7 have been reported on in the 2013 MGDS Review Report; out of 10 indicators in the M&E Matrix only 6 are reported on. All health output indicators in the mentioned Report are not in the Tracker Table at all.*

[44] Kusek & Rist, World Bank, 2004 page 40. & 41.

District level; the narrower, but more frequent, 2011 sixth (starting 2005) Welfare Monitoring Survey (WMS) also reporting to District level; the 2010-11 third Integrated Household Survey (IHS), carried out roughly every 6 years. The most widely used assessment, rather than a food production or availability survey, which commands strong public and political interest, is the annual Malawi Vulnerability Assessment Committee (MVAC) report on food security that uses quasi-statistical methods of assessment and informs decisions on food staple imports/exports. The 2005 National Nutrition Survey has not yet been repeated, a serious omission given the nutritional status of many. There has been no repeat either of the 2006 third Multiple Indicator Cluster Survey (MICS), which had interspersed the fuller DHS surveys, although the 2014 MDG Endline Survey of nearly 27,000 households, with over 80% of interviewees being women, is for all intents and purposes a MICS[45]. The final report will issue late 2014, but summary data for 174 indicators, where possible including disaggregation by sex, but lacking any disaggregation by location below the national level, is available for: Child Mortality; Nutrition; Child Health; Water & Sanitation; Reproductive Health; Child Development; Literacy & Education; Child Protection; HIV/AIDS and sexual behaviour; Access to Mass Media and ICT; Subjective Wellbeing; Tobacco and Alcohol Use.

There is a surge in interest for performance data at the heart of government, but demand at District level by Councils is not yet well articulated. Demand for performance data by Parliament has been apparently weak. The sector Parliamentary Committees that are not constitutionally mandated have become weak in their operation once donor support for them ended and the new Parliament has not budgeted for their needs for research analysts and they are further undermined by the allowance culture in Parliament[46]. If data and analysis were to be accessible from web-based MIS and CBM reports and surveys, then Parliamentarians would be empowered to assess programme effectiveness and the cost-benefits of different policy options. Demand for performance information by communities clearly exists, evidenced by their own reporting in some Districts (e.g. Dedza), but it has not been part of public expectations. Media demand for performance evidence is erratic and often negative in intention.

8.5. Incentives & Demand for Performance Information

Institutionally, various parts of government at all levels require good M&E in order to fulfil their responsibilities effectively, but these also overlap. Proposals for an integrated Peformance MIS in government are at advanced stage and all ministries and agencies are required to have an Organisational Performance Agreement (OPA) against which their performance can be monitored by the newly named Performance Enforcement Department in OPC.

The following departments all require similar data that meet their particular requirements, but there is no single data platform that meets their needs: Economic Affairs Division, responsible for macroeconomic forecasts and public expenditure issues, Economic Planning within EP&D ensuring that policy advice is targeted at achieving the strategic objectives of the MGDS; Budget Division,

[45] The MDG Endline Survey obviously places its focus on the MDG indicators and does not cover other areas of indicators relevant for monitoring the MGDS. See http://www.nsomalawi.mw/images/stories/data_on_line/demography/MDG%20Endline/Malawi%20MDG%20Endline%20Survey%20Key%20Findings%20Report%20.pdf

[46] For example, the Parliamentary Health Committee had not met in twomonths from the Opening of Parliament in June 2014. Although an Agriculture and Irrigation Committee exists it is not effective and provides no oversight monitoring of the FISP, the largest single item in the budget.

responsible for the Recurrent Budget and budget ceilings and allocations for the Development Budget; Development Division of Economic Planning and Development (EP&D), responsible for appraisal, preparation and performance of the Public Sector Investment Plan (PSIP) and the development budget ceilings[47]; the Economic Planning Division of EP&D, responsible for ensuring that policy advice is targeted at achieving the strategic objectives of the MGDS; the Monitoring and Evaluation Division of EP&D and the Budget Division also do monitoring visits of programmes and projects and so does the Debt and Aid Division, sometimes jointly, for donor-funded projects; OPC Performance Enforcement Department. There is no one-stop locus for obtaining the required performance data.

Outside sector ministries with their multi-stakeholder sector working groups (of sector specialists, donors, civil society and in some cases private sector) and Cabinet Committees and central ministries of OPC, MoFEPD, MoLGRD and agencies such as the Auditor General's Office and the National Audit Office, there are two key institutions that require evidence – Parliament and its Parliamentary Committees and, at the District level, the District Council and its elected representatives of MPs and Councillors. The election of Ward Councillors, for the first time since 2000, is leading to increased demand for data and analysis at the District level. While there are four Constitutionally mandated Committees of Parliament, Budget, Defence & Security, Legal Affairs and Public Appointments, there are twelve other sectoral interest Committees, including the Women's Caucus, established by Standing Orders, all of which offer oversight of performance in achieving national goals. These Committees are currently very weak and not resourced with funds or capacity to commission relevant research. Without data and analysis, they are unable to fulfil their democratic responsibility to ensure efficiency and effectiveness in programme design and implementation or to enact legislation that will address failures to deliver for all citizens and identify those who are marginalised from the development process.

By default, unelected advocates in civil society and UN agencies tend to identify inequities and represent the interests of those who have the worst outcomes. An effective integrated M&E system open for analysis by academia and civil society and for examination by Parliamentary Committees, as well as the media, could improve resource allocation and drive up efficiency and effectiveness. The same would happen if elected representatives and officials, as well as civil society and media, could access real-time data and carry out analysis of inputs (through sectors, NLGFC and LDF, as well as NGOs), outputs, measured against Customer Service Charters and District Development Plans, and outcomes at the District level.

The final level of demand for data should be that of the public[48]. However, Malawi has low levels of demand, matching the low expectations of health and education provision. NGOs at the local level are also largely unaccountable to the communities they serve and are often co-opted by sector ministries to deliver services on behalf of government. The short route of accountability from

[47] Recurrent and capital budgets are currently planned separately and produce separate reporting, which potentially fragments performance and financial information.

[48] The World Bank Group Aug 2014 Policy Research Working Paper 7015 "Information is Power: experimental evidence on the long-run impact of community based monitoring" on the results of two health service field experiments in Uganda finds that: *Efforts to stimulate beneficiary control, coupled with the provision of report cards on staff performance, resulted in significant improvements in health care delivery and health outcomes in both the short and the longer run. Efforts to stimulate beneficiary control without providing information on performance had no impact on quality of care or health outcomes.*

beneficiaries through local committees and elected representatives to service managers is remarkably weak in Malawi and is not serviced with evidence. Kalondolondo has provided some support over the past 6 years for enhancing the short route of accountability, but it has been seen by some as too negative and critical of performance in areas such as FISP, the use of the Local Development Fund and Education. However, many District officers saw their role as collaborative, particularly when the interface meetings organised by Kalondolondo implementing partners between communities and officials has led to proposing improvements in services and solutions to bottlenecks. Whereas a system of individual performance assessment is unlikely to work in Malawi, there is scope for recognising and enhancing team performance. Similar initiatives in the region seem to be yielding positive results regarding use of M&E to strengthen accountability, as highlighted in the case note below.

Box 4: Organizational Performance Agreements as a Promising Practice for M&E.

The Organizational Performance Agreements (OPA) framework was seen to be a channel that facilitated the gathering of information regarding the performance of public sector departments. The OPA is supposed to be a Compact Agreement between the Chief Secretary and the respective Government agencies based on their mandates and results related to planned targets and resources provided. All public sector agencies are expected to account for resources and results agreed with the OPC through the Chief Secretary. Signing and commitment by controlling officers is at the Ministerial level. District Councils are yet to be brought into the OPA framework, although the Performance Enforcement Department (PED) plans to make them aware of the need for OPC to conduct validation of reported performance of agencies/ministries at facility and community level.

Reports flow on a routine and consistent basis from the agencies to the OPC. This is an example of a ‘’passive’’ (as opposed to a ‘’reactive”) information flow. Provided the quality of the reports can be improved to cover output and outcomes, this mechanism can be a good channel for information flows between the agencies and a central unit responsible for aggregation. Additional measures to improve the quality of such a system would be needed, especially those related to data quality assurance.

The OPA process is currently very internal. Aggregated results should be made publicly accessible, which will itself provide an incentive for improved performance.

Source: State of M&E Study Consultations

8.6. The Weakness of Demand

An academic research project looking at the demand for evidence in policy formulation and programme implementation in the southern Africa region confirmed views expressed by some development partners and reaffirmed in discussions with several Directors of Planning. There is minimal use of already existing data; no disaggregation of data; no analysis of who is benefitting and who is left out; minimal use of existing household survey data; no triangulation of data. Data flows upwards, but not for planning or implementation. There is little real monitoring and evaluation of programmes. Plans for new classrooms or teachers are not based on evidence and textbooks are not distributed according to need based on EMIS records of numbers and FISP is not targeted to areas where the data shows low food production in order to generate equity in outcomes. The Ministry of Education does not use or analyse learning outcomes, although this is the key indicator post-2015 and a baseline is needed, and the Primary School Improvement Project provides school based funding based on enrolment, with no tracking of results. There is no reporting on outputs in relation to inputs or expenditure. Each donor seeks its own indicators and M&E is project orientated and Sector Wide Approaches reflect a collection of projects with annual reviews reporting on each as separate entities. Much of M&E is the product of field staff assessing their own activities.

There is generally a lack of analytical capability, although there is evidence in health of analysis of disease burden and its causes. EMIS only produces data at the aggregate level, inhibiting analysis of the real problems across Standards 1-3. There is no interpretation of data, such as patterns of agricultural production against weather records and mapped onto soil surveys. There is no analysis of the links between toilets and other resources and learning outcomes. Analysis by the World Bank on the effect of cash transfers on girls behaviour and their continuing in school shows how powerful analysis can be, but there is no attempt to link sectors and outcomes, such as agricultural production, food consumption, access to water and sanitation, diarrhoea, nutritional status, cash transfers, school attendance. Data is produced in sector silos and analysis is lacking. Resource allocation is not based on evidence of returns to investment or impact on equity and inclusion. Such a range of analysis, based on robust triangulated data, should be carried out by independent academic or consultancy firms to neutralise the analysis from political interference[49]. There is too much dependence on political interests, rather than bringing in organisations representing beneficiary interests, such as Farmers Organisations or White Ribbon Alliance or FAWEMA or civil society networks such as CISANET, MHEN, CSEC, MEJN. However, even these networks have very limited capacity for analysis and tend simply to report on budget allocations, with no analysis of actual expenditures or outputs and outcomes.

9. M&E Policy and Mandates

[49] Research agenda, based on quality data analysis might include such analysis as: Assessment of innovative approaches to delivering quality learning outcomes after first 3 years of schooling; role of incentives in retaining girls in school; the agricultural, WASH and health determinants of nutritional status of under-fives; access determinants of differential social and economic outcomes; income and GDP returns on investment in quality basic education; impact of community based monitoring on service provider performance; impact of innovative service deelivery on maternal health outcomes.

9.1. Institutional Mandates and Ownership and Capacity for M&E

The M&E institutional set up is critical towards securing a functioning and sustainable M&E system. Our understanding is that institutional aspects include formal rules and procedures guiding the practice of M&E in the country, as well as informal rules that may also be exerting a positive or negative influence on the functioning of the M&E systems in the country.

Box 5: Lessons on Monitoring and Evaluation from the Southern African Region

In 2010, the South African Government instituted and mandated the Department of Monitoring and Evaluation (DPME) located in the President's Office to develop a methodology to monitor the quality of management practices in the national and provincial government departments. A Management Performance Assessment Tool (MPAT) was developed. After an initial slow take up from departments, the tool has grown and is used to assess at least 155 national and provincial departments in South Africa. A baseline measure was established in 2012 and departments have implemented plans to improve their MPAT scores. Various initiatives from the administrative centre departments have been put in place to support departments in their improvements and to review policies based on results from these assessments. Case studies on good practice have also been documented and shared with departments to use to improve their own practices. The MPAT assessments are done annually and the results are presented to National and Provincial Executive structures and released publicly. This has created an immense interest from departments and a commitment by many to ensure improvements are implemented.

Source: Adapted from Visser et al. (2014). Improving the Use of Monitoring and evaluation processes and findings, Conference Report. www.wageningenUR.nl/cdi ("publications").

For Malawi, the Ministry of Finance, Economic Planning and Development (MoFEPD), via the M&E Division, is the custodian of the National M&E Master Plan, although other agencies such as the Performance Enforcement Department in the Office of the President and Cabinet, as well as the Ministry of Local Government and Rural Development (MoLGRD) are important actors, while others (Budget Division, DAD, Development Division) perform project level monitoring tasks. More precisely, MoFEPD, through the economics common service, supports Ministries and sector departments through recruitment and placement of Officers to staff Planning Units that are also expected to perform M&E roles. The Ministry is also expected to coordinate the whole M&E system and provide technical support to Local authorities that are under the purview of the MoLGRD.

However, M&E is also at the heart of the role of the oversight function of OPC and its Performance Enforcement Department as it seeks to ensure rising standards of performance and follows priority projects for government and facilitates removal of implementation hurdles for these, although this suggests possible overlap with EPD's monitoring role. Equally the Budget Division requires quality M&E and ensuring that MGDS goals and priorities are funded and achieved. Parliament's oversight role, particularly through its cross-party sector committees and the Public Accounts Committee also require access to performance data, as do Ministries for their planning purposes and budget negotiations with Ministry of Finance.

The Ministry of Local Government and Rural Development (MoLGRD) is of critical importance in coordinating the M&E roles for the Local authorities, including retaining District M&E Officers and Data Clerks. The Planning Department of the Ministry is responsible for ensuring that the local level M&E activities are functioning and coordinated. Ensuring the functioning of District M&E Coordination Committees is key in this connection. To the extent that the Local Council Secretariat is expected to coordinate the M&E activities at the local level, the District Development Planning and Development units where M&E is housed at the district level are important nodes in guaranteeing the functionality of M&E systems in the country.

However, a review of the current institutional mandates and practices regarding M&E disclose: (a) a weak mandate for MoFEPD, (b) a measure of overlap in roles among Departments in MoFEPD that does not seem to be effective in supporting a functioning M&E system in the public sector, (c) the existence of mandates that are not funded, (d) in general, the M&E function at the ministry and department level seems marginal, with officers in those units used for other functions (mainly planning and budgeting processes).

First, MoFEPD, through the M&E Division, appears to only have an operational mandate of carrying out monitoring and evaluation. It does not have a legal mandate to impose sanctions for non-compliance by sectors and departments. As a consequence, M&E seems to be relegated to a peripheral role regarding public sector accountability and learning. Second, within MoFEPD, the role for routine monitoring of projects appears to be carried out by three different divisions—the M&E Division, the Development Division and the Budget Division—most likely for the same set of PSIP projects[50]. The involvement of the Budget Division in project monitoring appears to have been necessitated by the lack of adequate monitoring information on the performance of projects that are funded. This lack of information reflects weaknesses in the M&E systems and a lack of accountability for M&E mandates throughout the public sector. These failures show themselves in inconsistent reporting by sector ministries and departments implementing the PSIP projects, as well as a relatively long reporting cycle (annual) for reporting, implying difficulties in gauging the status of the PSIP on a quarterly or bi-annual basis. These challenges have been recognized by the Development Division and current efforts are towards enforcing a shorter reporting cycle on PSIP projects by sector departments and ministries. Ways are also being explored to ensure consistency in reporting on agreed performance indicators by ensuring that indicators being reported on reflect approved results and performance standards. Third, at the district level, despite the important role that the District Development Planning units play through District M&Eos, their functioning is severely constrained by consistent under-resourcing (mainly financial) of the M&E functions. Similarly, in most districts, although the DMECCs existed, their functionality is inconsistent, ad hoc, and at times tentative, meeting only when resources to convene meetings are available. There is a need for DMECCs to provide leadership at District level on M&E and, in parallel to the national M&E National Coordinating Committee, to require sector departments at District level to supply data through the DMECC. Fourth, at the sector ministry and department level, M&E seems to take a subsidiary role. Although in the ministries and departments M&E is purported to be an important function, it is only carried out to a limited extent. In yet others, the M&E function appears to be marginalized by

[50] The recent merging of the Ministry of Finance and the Ministry of Economic Planning and Development tends to accentuate the overlap in roles, although this also occurred when the two ministries were separate.

technical departments, with planning units' input only required mostly during budgeting sessions. Most of the officers interviewed report spending less than 30% of their time on M&E.

The preceding text suggests that IPMIS monitoring needs to be firmly with the Development Division, with the M&E Division playing a facilitative and technical support role, while the Budget Division can feed from the M&E results emanating from the Development Division PSIP monitoring. The more specific roles for the M&E Division would be threefold: (a) buttressing the Development Division's role by ensuring that the quality of projects that make it into the PSIP meet the minimum design criteria to permit results monitoring (sound results chains, robust indicators for monitoring results, existence of M&E frameworks, etc), which can be done by undertaking ''quality at entry into PSIP'' assessments; (b) prompting and coordinating evaluation of key sector projects for both learning and accountability purposes; and (c) focus on initiating data quality audits that would add value to the quality of data being collected and reported on for PSIP projects.

In view of the foregoing, mandates need to be clarified for data collection, data consolidation, protocols and management, and analysis. Quality assurance is lacking, although NSO would clearly have the expertise if not the resources to provide this function.

The National Statistics Act 2013 makes provision "*for the better collection, compilation, analysis, publication and dissemination of statistical information*". It also provides "*for the establishment and functions of the National Statistical Office*" and "*for the establishment and functions of the National Statistical System*" and for "*the relationship between the National Statistical Office and other bodies*". The NSO posts Common Service Statisticians (comprising Assistant Statisticians with Diploma entry; Statisticians with graduate entry; Senior and Principal Statisticians) to the Planning Units of sector ministries and also currently, with donor support, Common Service Assistant Statisticians to the District Hospitals for the Health MIS. We found no evidence that the statistical training and capacity for analysis of these deployed Statisticians is being used appropriately by the sectors and Districts. At least in Mchinji, we found that the Assistant Statistician in Health is working closely with the District M&E Officer to strengthen the M&E system through developing a District M&E Framework.

The South African model (see box above) of an empowered Department of Monitoring & Evaluation that effects evaluation of programmes, independent of implementing ministries, is worth considering. NSO could provide quality assurance and key staff could be sent for training in evaluation. Currently EPD lacks the capacity for such evaluation and also lacks the institutional capacity to mount a system of evaluations. The M&E Master Plan needs to be reviewed to take account of the need for a more professional and systematised model of evaluations.

Malawi's national M&E system should be driven by a practical, effective and realistic management information system (MIS) that provides information to enable programmes to be managed efficiently and effectively. Such a system should be sensitive to the prevailing context; especially relating to available resources for M&E (both financial and human); technology; policy environment; and past experiences. For example, at this stage in the use of ICTs in the country, such a system would typically include both paper based data collection systems

at lower levels and computerised systems used for managing local, district and national level M&E data with a progressive shift towards digitisation of manual registers; and a web interface for sharing analysis and tracking agreed indicators. There is now wide experience of real-time monitoring of services, well developed in Uganda in relation to both education and health, and even of impacts of global commodity value changes on the lives of the poor, often using mobile phone technology, such as the UN Global Pulse[51].

Activities within a functional Management Information System should involve data collection and processing; data analysis at all levels; integration of databanks and linkages to other data systems, securing data; and aggregation, sharing and reporting on indicators as given below.

Components of an integrated M&E information system

9.2. Policy & Regulatory Issues

Document review and stakeholder consultations indicate that a policy for M&E for the public sector does not exist. However, the National M&E Master Plan is expected to fulfil that purpose and is the main frame of reference regarding M&E systems in Malawi. The National M&E Master Plan (2006, updated 2012) defines the components that form the national M&E framework in Malawi's public sector, namely, (a) National Development Strategy (NDS) monitoring; (b) poverty, vulnerability and inequality (PVI) monitoring; (c) impact monitoring; (d) development management information systems (DMIS); and (c) communication and advocacy initiative. This is expected to shape the content of the M&E systems in the country.

The M&E Master Plan as currently constituted provides a conceptual framework for the M&E agenda in Malawi. It has been useful in highlighting the need for M&E, as well as forming the basis for concerted efforts towards institutionalizing M&E in the country. The Joint Programme for Strengthening M&E (JPSME) systems in the country implemented between 2006 and 2011, which sought to operationalize the Master Plan, as well as the current DEAP are evidence of the guiding role the Master Plan document has provided. The Master Plan also highlights the need for a consolidated Development Management Information

[51] See http://www.unglobalpulse.org/

System to permit pooling of data from various sources and facilitating access to decision makers, researchers and other that need data.

However, the M&E Master Plan has a number of internal shortfalls, and is affected by contextual factors that limit its influence in shaping the way M&E is conducted in the country. First, the plan does not specify the information requirements that will drive the national public sector M&E system. The reference to the National Development Strategy Monitoring assumes an agreed and robust set of indicators that will drive the need for information in the system. It also assumes the indicators meet performance standards amenable for tracking results. Second, the plan does not define standards for critical elements that would be required in the M&E for the public sector. For instance, the plan does not specify norms for indicators, for evaluation and for use of evaluation results in the public sector, a gap partly compounded by the absence of an evaluation policy in the public sector. Third, implementation of the plan is hamstrung by a weak framework that cannot compel sectors and departments to undertake M&E. There seem to be no sanctions for non-compliance, especially reporting requirements related to MGDS tracking and PSIP reporting.

The gaps identified imply the need to review the M&E Master Plan. In reviewing the plan, particular attention will need to be paid to defining the information requirements based on a core set of indicators from the national development strategies, setting standards for critical elements of M&E in the public sector. This may be achieved by preparing an M&E policy for the public sector, while the Master Plan becomes the vehicle for operationalizing the policy. In addition, addressing contextual factors, such as the MoFEPD's inability to decisively effect the M&E Master plan, implies the need to strengthen the mandate of the Ministry.

The table below summarizes the state of M&E against criteria for functioning M&E systems. Select public sector agencies were reviewed against the criteria. The State of M&E in relation to key issues is described in Annex 2.

Table 3: Criteria and Issues for a Functioning M&E System in Malawi

	Criteria	**Issues**		
#		**National**	**Sector**	**District**
1	*Human Capacity* for M&E systems - establishments vs. filled positions, time spent on M&E activities, skills, etc	MEPD M&E Division coordinates M&E activities. Staffing vacancies against establishment. Staff have attended short courses on M&E. Available staff trained to at least Bachelors degree level. Skills in evaluation and policy analysis seen as a gap, but this can be closed by an outsourcing arrangement.	Planning Departments/units in sector ministries have staff from Economic & Statistical common service. Observed vacancies against establishments. Available staff trained to at least Bachelors degree level	One M&EO and one Data clerk at secretariat Some Departments – health, agriculture have M&E staff (Assistant Statisticians, M&EOs, etc.). Districts have M&EO, data clerk employed under the now phased out Joint Programme Support for strengthening M&E systems in Malawi. Training: social sciences (economics, demography, etc). Positions reported to be non-established
2	*Mandates* for	Clear mandate for M&E	Planning units (from	District Secretariat.

	M&E	Division. OPC PED—for overall public sector performance. M&E Master Plan exists but does not compel public sector agencies to undertake M&E. Access to information bill (2013) has potential to buttress record keeping but has not been passed. NSO Act (2013) provides legal mandate for NSO role in statistics production.	Economic and Statistics common services). Perception that M&E is only a small element of roles officers in the planning units.	Sector Departments. Mainly reporting roles, although some departments (e.g. health, education, agriculture) have data collection and partial aggregation roles.
3	*M&E partnerships* in Malawi	Around MGDS review, but irregular in the past 3-4 years. Possible duplications for projects monitoring among ME Division, Development (PSIP monitoring), Debt and Aid, Budget Division Joint monitoring visits. NSO Act (2013) specifies need for statistics policy design; monitoring and evaluation, and decision making	There are examples of partnership from HIV and AIDS sector, Health SWAp, Agriculture SWAp, Water and Sanitation Joint Sector Reviews .Periodic joint sector reviews are undertaken with partners to look at sector performance. Most sectors collect and report largely within departments/sector ministry.	District M&E Coordination provided for on paper, but not always operational across all districts.
4	*M&E Plans* at the national, sector and district levels	M&E Master Plan. The MGDS results framework provides information requirements for monitoring the MGDS. An accompanying MGDS results framework and toolkit to aid monitoring of the MGDS	Health, Education, Gender (framework being finalized), Ministry of Transport and Public Works (framework developed with EU assistance)	Not evident at district level. Mchinji district was preparing a District M&E framework
5	*Costed M&E workplans* at various levels of operation	M&E Master Plan not costed/Program to operationalize Master Plan not evident	Observed for HIV and AIDS sub-sector. In most sectors M&E activities planned but not always funded	Work plans costed but rarely funded
6	*Periodic thematic studies* that support M&E	Program for thematic studies (e.g.. value for money for selected programs, integration of gender /environment into programmes,) commissioned by MoFEPD not evident. M&E Master Plan lists studies mainly to be carried out by the NSO, but their implementation depends on funding availability.	Program for thematic studies not evident across sectors. Observed for the HIV and AIDS sector where thematic studies are carried out	Program for thematic studies not evident at this level.
7	*Existence of data bases* that are useful to M&E systems	Not evident in M&E Division, Development Division (PSIP data base has M&E component but is not operational), National Statistical Office (MASEDA), Aid Management Platform (MoFEP&D)	Education (EMIS), Health (HMIS)	District data bank mentioned, but not operating for past 3-4 years in 4 of the 5 districts visited. Local Authority HIV and Aids Reporting System now uses excel sheets to enter and collate data for HIV and AIDS programs HMIS and DEMIS prominent at district level
8	*Routine Monitoring* of the key national	MGDS reviews expected to occur annually, but intermittent in the past 2-3 years. Limited	Only 6 out of the 16 sector working groups said	N/A

	policies, sector strategies and programmes	focus on results as some of the indicators tracked are process indicators.	to be functional. In sectors with functioning SWGs and regular Joint sector reviews there is normally an annual review report.- with the Agriculture SWAp recording improvement in structure and content of review and ensuing report..	
9	Supportive supervision and data auditing	Data auditing rarely undertaken by MoFEPD and most sectors. Evidence in HIV and AIDS sub-sector (NAC), National Statistical Office Surveys	Not evident except in health (MoH), HIV and AIDS.	Not evident at district level, except MoH and NAC.
10	*Evaluation and Research* as part of M&E in the country	Previously undertaken PETS , performance audits. The NSO, CRS, CARD, COMREC, NAC, National Commission for Health Research undertake and/or coordinate research. However, Program of Evaluation and Research useful for MGDS monitoring not evident. Evaluation standards[52] not specified in M&E Master Plan. Linkage with national M&E agenda unclear.	Evidence in HIV and AIDS sub-sector (NAC). See column on the left on agencies undertaking research	Not evident at district level
11	*Using M&E information* to improve results	Reported use in budgeting Limited evidence of use of MGDS review and MDG reports Learning forums not evident	Joint Sector and programme Reviews (water and sanitation, health SWAp, LDF) evident but not clear how learning occurs.	Used in budgeting, but rarely for informing programme content

As can be noted from the table above, the underlying institutional structure for the M&E roles is integrated into the Ministries and Departments through Planning Units via the economics and statistics common services. Both of these common services fall under the purview of the MoFEPD. Economic service staff in the M&E Division of the MoFEPD are educated to at least bachelors degree level. Under the statistics common service, in addition to officers, there are data clerks. At the district level, the district secretariat has M&E officers and data clerks employed under the Ministry of Local Government and Rural Development. Except in the District Health Office where National Statistical Office staff are placed, the rest of the sector departments are not linked to the NSO. *Overall, staffing shortages and the need for enhanced skills in M&E was voiced, implying the need for measures to close these capacity gaps.*

The legal framework for M&E is characterized by some legislation, such as the National Statistics Act (2013), but this is confined to the NSO role. Legislation to compel public agencies to keep records, the Access to Information Bill (ATI Bill) of 2013, has been prepared, but is still to be passed. The MoFEPD has responsibility for coordinating M&E activities in the public sector, while the OPC's

[52] International standards include: (a)*Utility*-the utility standards are intended to increase the extent to which program stakeholders find evaluation processes and products valuable in meeting their needs; (b) *Feasibility*- the feasibility standards are intended to increase evaluation effectiveness and efficiency; (c) *Propriety-t*he propriety standards support what is proper, fair, legal, right and just in evaluations; (d) Accuracy-the accuracy standards are intended to increase the dependability and truthfulness of evaluation representations, propositions, and findings, especially those that support interpretations and judgments about quality, and, (e) *Evaluation accountability-t*he evaluation accountability standards encourage adequate documentation of evaluations and a meta-evaluative perspective focused on improvement and accountability for evaluation processes and products.

Performance Enforcement Department is instituted to promote public sector performance. The Budget Division and Debt and Aid Divisions in the MoFEPD also undertake M&E of projects, although this is not their mandated role. The weakness of the MoFEPD's mandate in enforcing M&E is discernible, and also recognized in the M&E Master Plan. The current status implies the need for (a) a strong legal framework to require all public sector agencies to undertake M&E, which can be fulfilled by the ATI Bill if passed, including enforcing registers for administrative data, (b) identification of champion/s to drive M&E in the country.

10. Roles of Key Institutions in the National M&E System

The following Table 4 indicates the roles and responsibilities that would be required for a coherent M&E system across government that would lead to complementarity rather than competition and confusion.

Table 4: Roles & Responsibilities for Coherence in M&E across Government

#	Institution	Role
1	Office of the President and Cabinet (Performance Enforcement Department)	• Overall accountability • Performance enforcement-ensuring M&E results are acted on • Ensure all public sector agencies are implementing their M&E plans
2	Ministry of Finance Economic Planning and Development	• Coordinate overall public sector M&E • Prepare and manage implementation of the M&E policy and Master Plan • Coordinate M&E results dissemination on National Development plan(s) • Set and enforce policy, program and project formulation standards consistent with results based management • Prepare and coordinate implementation of evaluation and thematic studies • Facilitate use of M&E results (lesson learning) • Guarantee funding for M&E in sector ministries, departments and Councils
3	National Statistical Office	• As described in the Statistics Act 2013, Part II • Assist sector ministries create and operationalize statistical registers • Skills enhancement for statistics in the public sector • Prepare and execute surveys based on information needs of the National Development plans and the NSS
4	Ministry of Local Government and Rural Development	• Develop Local Council capacities to collect, aggregate, analyse and disseminate information from the Local Council M&E subsystems • Capacity building for M&E staff in Local Councils • Guarantee funding for M&E plans for Local Councils
5	Sector Ministries/Public sector agencies	• Collect data based on sector priorities and National Development Strategy information requirements • Act as secretariat to Sector Working Groups • Prepare and operationalize

		sector/department M&E frameworks • Prepare and implement sector M&E work plans • Prepare and operationalize sector statistics registers based on NSO standards
6	Department of human resources and Development	• Staff the NSS and Planning units with skilled personnel in statistics and M&E • Create establishments for M&E positions at the Local Council
7	District Councils	• Collect data based on sector priorities and National Development Strategy and District Development information requirements • Act as secretariat to District Monitoring and Evaluation Coordination Committee (DMECC) • Prepare and implement district M&E work plans • Manage district data banks

11. Recommendations

11.1. Overall

11.1.1. M&E National Coordinating Committee

An M&E National Coordinating Committee, chaired at PS level in MoFEPD, should be created with agreed ToRs at PS level from across key Ministries, largely representing the demand side for M&E, with the Chair of OPC's IPAC, the Commissioner of NSO and a representative from each of donors, universities and civil society, with possibly one representative from District level and possibly the addition of champions of M&E identified in this assignment. As the statistics system is a sub-system of the overall M&E system, the M&E National Coordinating Committee would include representation from the NSS agencies that constitute the NSS Steering Committee [§3.2].

11.1.2. M&E National Coordinating Committee Leadership

The M&E National Coordinating Committee should agree a position on each of the Recommendations contained in this report and the proposed Action Plan, within the framework of the Statistics Act, the NSS and the M&E Master Plan as part of its development of a comprehensive plan to strengthen M&E and provide one vision that informs all monitoring and evaluation. However the priority for the M&E National Coordinating Committee would be to deliver on the first year Action Plan, during which the M&E Master Plan could be revised to reflect the realities of achievement in implementation [§3.2 and 6.1].

11.1.3. DMECC Leadership at District level

At the District level, in parallel to the M&E National Coordinating Committee Leadership at national level, empowered District M&E Coordinating Committees should mirror the national requirements on sector ministries for integrated M&E systems and web-based flow of data by requiring sectors to work through the DMECC and link all data to the District M&E system. Any community based

monitoring should in the first instance pass to the DMECC [§9.1]. The development of such an approach should be incremental and begin with the four RBM Districts.

11.1.4. M&E Technical Working Group

The ad hoc short-term M&E Reference Group[53] should be formed into a long-term M&E Technical Working Group as part of the MGDS implementation structure and to help inform and implement the decisions of the M&E National Coordinating Committee. Its membership should include M&E technical staff from across government and development partners, CSOs and academia, possibly meeting quarterly [§8.1].

11.1.5. Vision

The Proposed Vision should be discussed by the ad hoc M&E Reference Group, verified by M&E Division of EPD, approved by the M&E National Coordinating Committee and submitted by the Minister to Cabinet for approval [§6.1].

11.1.6. IDDATA Strategy

The core principles of Integration, Digitisation, Disaggregation, Access, Triangulation & Analysis, inherent in the proposed IDDATA Strategy, should be discussed and endorsed by the M&E Reference Group for approval by the M&E National Coordinating Committee [§6.2 and in respective detail in §4.19/7.7; §5.6; §8.3/8.4/8.6; §3.4/4.1-4.4/4.7/4.10/4.17/4.18; §8.2; §8.4 respectively and Recommendations 11.2.2/11.2.4/11.4.2/11.5.6].

11.1.7. IPMIS

The proposed IPMIS should be discussed by the M&E Reference Group and ToRs for its development and implementation drafted by M&E Division, for approval from the M&E National Coordinating Committee [§4.17].

11.1.8. Publicise State of M&E in Malawi

The M&E Division of MoFEPD should prepare a leaflet and Press Release on the main findings of the State of M&E Report as part of building the public constituency for the role of evidence in Malawi's development agenda. The M&E Division should also print a number of copies of the report for further dissemination and place the report on their website and that of NSO [§1.4; 1.5; 2].

11.2. Recommendations on Systems & their Integration:

11.2.1. Independent M&E System

In clearing up the poor governance represented by Cashgate, Government should commit to a robust M&E system that has independent integrity beyond political or administrative influence and bring donors to the table to discuss a better way forward in line with Busan. Further, donors themselves need to develop a common position on M&E, form a joint group and appoint a lead for M&E (eg UN, DFID, Norway), who should actively bring partners together to continue joint discussions and take part in the M&E Technical Working Group. A rotating chair along the lines of the Troika Group will enhance shared ownership [§2; 8.1].

11.2.2. Transparent & Accessible M&E

Policy discussion is required as to which websites should contain links to the proposed real-time M&E database, with the presumption always towards open

[53] The M&E Reference Group is an ad hoc temporary grouping, drawing in government, development partner, CSOs and academia stakeholders, that has acted as guidance for this consultancy. It is suggested that it can continue in the short-term to steer the recommendations of this report until these are owned by the proposed M&E Task Force and the M&E Division in EPD and the Reference Group dissolves or becomes one of the MGDS Technical Working Groups.

government, transparency and the right to information, in order to reduce the cover for poor performance [§4.1-4.4/4.7/4.10/4.17/4.18].

11.2.3. Key Set of Indicators

The M&E National Coordinating Committee (with technical support from the ad hoc M&E Reference Group and seeking advice from each sector and central ministries/departments of OPC and Development and Budget Divisions, as well as MoLGRD and NLGFC and Chairs of Parliamentary Committees) should be involved in developing and then approving a key set of manageable, appropriately disaggregated, MGDS indicators that will then feed into MGDS/post-2015 agenda monitoring. Other indicators may be collected for sectoral management purposes, but not be part of the national indicator set [§3.3; 6.1; 8.3].

11.2.4. Agreed Disaggregated Indicators for Equity Analysis

The M&E Reference Group should develop a core sub-set of the above key indicators, focusing on outputs and outcomes, which can be disaggregated sufficiently to identify the social categories that have the worst outcomes, which would then enable investments to be focused accordingly. The current focus on using agreed indicators based on the MGDSII information requirements is commendable, but emphasis needs to be placed on continued disaggregation of data by sex, wealth ranking and geographical location, including, where possible, District, Traditional Authority (T/A) and Ward levels [§3.3; 6.1; 8.3].

11.2.5. Community Monitored Indicators

M&E Division should work with Kalondolondo and/or other partners in determining a core set of indicators to be approved by the M&E National Coordinating Committee, primarily around service delivery performance, that communities can monitor in their monthly Village/Ward/Area Development Committee reports [§4.13].

11.2.6. Automated Indicator Reports

In line with the significance of automated reports for M&E integrity [e.g. see §1.2 page 12; 4.7; 4.10 on HMIS capacity; 5.1; 5.6; 6.1; 6.3; 7.1; 8.1; 8.3], the M&E National Coordinating Committee, advised by the M&E Division, should agree with sector ministries in advance the core set of headline indicators, based on agreed national development strategy (e.g. MGDS II) or global strategy (post-2015 agenda) or indeed sector strategy to which Malawi has committed, which will be collected and entered real-time at source for generation of automated reports at national and District levels [§ 7.1].

11.2.7. IPMIS Automated Reports

In line with recommendation 11.2.6, the IPMIS platform software should be developed that can generate automated reports across sectors, drawing on the DHIS2 software used in HMIS. This should further incorporate the agreed set of MGDS and OPA indicators [§3.3; 6.1; 8.3; 4.17; 7.1].

11.2.8. Annual Sector Reviews Based on Agreed Disaggregated Indicators

Annual Joint Sector Reviews should be strengthened by including comprehensive sector review studies, in addition to current arrangements that rely strongly on preparation of sector reports by ministry staff [§3.3/4.13/8.3].

11.2.9. Indicators for Cost-Benefit Analysis

Each sector should be required to develop agreed indicators for cost-benefit analysis of investments and measures of efficiency in terms of unit cost of outputs as well as measures of effectiveness in terms of a range of outcomes against a suite of inputs.

If PBB goes ahead, each Programme should be required to have at least one such indicator [§8.3/8.4].

11.2.10. Programme Evaluation Unit and Plan

There should be a dedicated unit with trained capacity and institutional capability to effect evaluation of programmes, independent of implementing ministries. NSO could provide statistical quality assurance and key staff could be sent for training in evaluation so that they can competently manage independent evaluations. The empowered Programme Evaluation Unit, possibly as part of the Poverty Monitoring Unit, should report through the M&E Division to the PS Economic Planning and Development in MoFEPD. Evaluations, within an overall Evaluation Plan, should be commissioned from independent external evaluators by the Programme Evaluation Unit, with advice from reformed SWGs and from MoFEPD's Development and Budget Divisions and OPC, that enable the links between policies and programmes to be tested against impact on lives. Every evaluation should require the responsible programme or policy owner to produce a post-evaluation improvement plan and accompanying monitoring agenda for the improvement plan. Each SWG should develop an M&E plan and have this reviewed by the M&E Division as part of the overall M&E Master Plan. [See §3.3 on Opportunities].

11.2.11. Government M&E Fund

Government should develop a costed plan to boost M&E capacities in line with recommendations in this report. More donors should then be invited to commit funds to support the plan based on one shared vision and one plan. Such funds could initially be pooled through the UN, in line with the DEAP, and complementing ring-fenced government contributions for M&E. The central M&E Fund could require each District to ring-fence a District M&E Fund of pooled resources from the sectors and from MoLGRD, which would support the District M&E Coordinating Committees [§3.1 & 3.4]. [see page 13].

11.2.12. IPMIS; MASEDA; MNADA

The relationship between the central systems should be as follows:

1. IPMIS – a one-stop source of all current data and reports with links to sector MIS holding current reporting from digitised Registers [§4.17];
2. MASEDA - drawing down the statistics from the most recent surveys and the previous year's MIS end-of-year indicator summaries [§4.7]; and
3. MNADA - the repository for all historic data and special studies, etc. [§4.8].

11.2.13. Digitised Register Basis for IPMIS

IPMIS, based on aspects of both PSIP and DHIS2 software, should be developed to fulfil a role of an integrated web-based source of real-time data that can be regularly updated from increasingly digitised Registers and link with all other MIS, including current reports being continuously generated by CBM and by sector MIS and drawn from registers at point of delivery of services, in particular the National Register of Births, business registers, border crossing import-export registers, market information, FISP voucher and cash transfer registers, crop estimates and production etc. [§1.2/4.2 and 4.10 on HMIS/EMIS pilots and potential across many sectors and §5.1/5.5/5.6/4.17].

11.2.14. Adapted DHIS Software for IPMIS

The open-source DHIS should be adapted and modified by a technical implementer at no cost to provide the foundational software for IPMIS. There should be a cross-sector technical working group steering the implementation and working as a sub-

group of the wider Change Management Board. [see §7.8 and Recommendation 11.2.17]

11.2.15. Standardised Identifiers

A working group under E-Government, with participation from sectors, districts, IFMIS/AMP/PSIP and the NSO should agree a system of standardised identifiers as soon as possible and introduce this into all data collection [§ 4.19; 4.10; 5.1; 5.3; 6.3; 7.1; 7.7].

11.2.16. Testing & Roll-Out of IPMIS

The new IPMIS system should first have a prototype field test within a simulated environment, before being rolled out to a test district, in order to work out teething problems that would otherwise complicate its wholesale adoption. Full deployment would then be dependent on getting the various human resources and hardware properly synchronized followed by a phased rollout by district councils. The system itself would then go through iterations in order to improve its efficacy, with initial roll-out in the 4 RBM Districts and subsequently every 3 months to a further 6 Districts over the following year. MGDS and OPA modules should be developed as part of the roll-out to the initial 4 RBM Districts [§7.8].

11.2.17. IPMIS Change Management Board

An IPMIS change management process overseen by a change advisory board comprised of key stakeholders should be established. This board could sit once a month to review proposed changes and would be on standby for emergency sittings should the need arise. It should include a Technical Working sub-group that oversees the technical adaptation of DHIS for the IPMIS [§ 7.2; 7.8]. The Change Management Board should be chaired in rotation by M&E Division, by PED and by E-Government to ensure effective collaboration. The Board should decide where to meet that best can provide secretariat functions.

11.2.18. PSIP Effectiveness

While IPMIS is being established, PSIP should improve the quality and breadth of its M&E reporting on projects, including MIS and community based monitoring, and make this available for all stakeholders to view in order to reduce the need for duplication of monitoring by others such as Budget Division [§4.3].

11.2.19. IFMIS and AMP Integration

IFMIS and AMP need to be integrated along the lines recommended in the Budget integration Assessment report of 2014[54], with clear identifiers for Projects, data harmonization and importation of the development budget from the IFMIS to the AMP, including the importation of stand-alone government-financed development projects, as well as government contributions to foreign aid projects, and expenditures of on-budget projects. AMP's GIS mapping tool should be activated to permit effective analysis based on sector, MGDS etc and linked through the standardised GIS identifiers to output and outcome indicators generated at facility and district level [§4.2].

11.2.20. IFMIS; AMP; IPMIS; and NGO Data

IFMIS and AMP should be linked with the IPMIS and progressively paralleled by a roll-out of open-access District resource envelope databases that include all District NGO, donor-funded special sector projects and Recurrent, Development and Revenue budgets and disbursements at District level and provide facility-level budgets and expenditure open to the public. These could draw on entries in the AMP

[54] See Recommendations on page 19 of the Draft Final Report on Budget Integration Assessment in Malawi, 11 June 2014.

with appropriate disaggregation to District level. Protocols on reporting should be developed between development partners and NGOs to ensure that resource allocations are not double counted, where NGOs receive in-country funds from donors for district level implementation [§4.2 and 4.17].

11.2.21. MASEDA Repository of Latest Surveys

MASEDA should be provided with an adequate budget and be revitalised with a good internet connection to hold the most recent survey statistics and annual sector and MGDS indicators. This should build on the agreed rationalisation of indicators that provides a core set of manageable, appropriately disaggregated, indicators, which can be regularly updated from key IPMIS reports. Sector reports should be submitted to MASEDA in agreed formats [§4.7].

11.2.22. MNADA Repository for Historic Data

MNADA should be revitalised as the one-stop repository for all historic statistics, including the historic monthly reports generated by CBM and by sector MIS and drawn from registers at point of delivery of services, in particular the National Register of Births, business registers, border crossing import-export registers, market information, FISP voucher and cash transfer registers, crop estimates and production etc. [§4.8].

11.2.23. Sector MIS Link to IPMIS

All sector systems, especially in health, education, agriculture and water, should provide for automated software generated reports, with entry access rights reserved for data collectors, in order to prevent political or administrative distortion of hard evidence [see Recommendations and links under 11.2.6 & 11.2.7 above]. MIS data needs to be made open access and linked to the IPMIS [See Recommendations and links under 11.1.5 and 11.2.2 above; §4.10; 4.17]

11.2.24. Activating HMIS Automated Reports

In particular, the web-based DHIS software used by HMIS, should now be fully activated to generate automated reports, metadata and headlines on the key reportable diseases in order to enable increased accountability and performance in the health sector [HMIS section under §4.10].

11.2.25. Web-Based Databanks within IPMIS

All District and Sector Databanks should be web-based and open access either within or linked to IPMIS, providing secure back-ups from potential hardware failure. If the infrastructure is part of the national IPMIS, then Districts can piggy-back on the national system without additional cost [§4.14; 4.17].

11.2.26. Web-based Community Based Monitoring linked to IPMIS

Kalondolondo, if it accepts a reformed approach that empowers local communities, should develop an open-access web-based databank where its community based monitoring reports should be housed and automated summary reports generated using NVivo, QDA Miner and its associated free QDA Miner Lite or other software[55] capable of aiding qualitative data analysis to analyse key themes across the country,

[55] A summary of such software can be found at: http://en.wikipedia.org/wiki/Computer-assisted_qualitative_data_analysis_software which shows the range of qualitative data analysis software available. NVivo is the most widely used, but at not insignificant cost affecting number of users – See http://www.qsrinternational.com/quick-order_listing.aspx. There would be a need to invest time for learning, but once mastered, users are likely to refuse to do any analysis without it. If there is to be a decision to use this software, before investing in both the software and the training, GoM should approach QSR for partnership to discuss a reduced price but also increased support. Prior to a decision, there can be a 30-day free trial of the current Version 10, although negotiations might involve seeking an older version that cannot do complex analysis that is not required. NVivo's potential can be seen from an overview of the Christchurch, New Zealand post-earthquake consultations on http://www.qsrinternational.com/solutions_case-studies_detail.aspx?view=181. QDA Miner full version 4.1is produced by Provalis Research and its older QDA Miner Lite V1.3 is a free Windows version for limited analysis of textual data – See: http://provalisresearch.com/products/qualitative-data-analysis-software/freeware/

with a link created for automatic uploads of its reports also to PSIP [§4.13; 8.2; 8.3; 8.5].

11.3. Recommendations on Capacity Building:

11.3.1. M&E Officers as Established Posts with Career Path

District M&E Officers should urgently be made established posts and provided with clear career path through Senior, Principal and Chief to Director level, similar to the Common Service Economists in Planning Officer roles and Statisticians under NSO. This implies a review of the current functional roles of the Local Government Services, or indeed, the central level common services, culminating in Establishment Warrants reflecting a career progression for the District M&E Officers [§5.2].

11.3.2. Statistical Qualifications & Recognition for M&E Officers

M&E Officers, at Sector and especially at District level, should be offered support to complete a distance-learning Diploma in Statistical Analysis from Chancellor College, requiring a supervised practical example of statistical analysis relevant for their work, and be recognised as such in their title and through a grade promotion [§3.5; 9.1].

11.3.3. MISOs as Established Posts with Career Path

District MISOs should urgently be made established posts under MoLGRD and provided with clear career path through Senior, Principal and Chief to Director level, through the E-Government Common Service [§5.2].

11.3.4. MoLGRD Responsibility for Establishing District M&E

MoLGRD should immediately ensure that all District M&E Officers and Data Clerks are made established posts and that District M&E Coordinating Committees are functional and implementing a District M&E Framework [§5.2].

11.3.5. M&E Officers central to District Management

District Commissioners should require each department head to submit their monthly plans through the District M&E Officer who should validate the data on coverage of programmes etc before the next month's funds are released. District M&E Coordinating Committees (DMECCs) should be required to meet monthly and submit regular reports to the MoLGRD [see §5.2 for example and §4.12; 4.14; 9.1].

11.3.6. Negotiating Connectivity with Private Sector

E-Government should enter tough innovative and competitive negotiations with private sector ICT service providers to provide government access, at minimal cost, to reliable mobile data networks, such as 3G. Incentives for such terms could be tax holidays or provision of limited period interest payments on those investments that are in advance of demand [See f.n. 25 under §4.17].

11.3.7. Mobile Phone Apps

M&E Division and E-Government, with support from the UNDP administered DEAP, which is the main vehicle for support to M&E, should urgently commission ToRs for supply of mobile phone technology and customising of Apps for digitising an agreed set of registers, backed by a clear training schedule [§5.6].

11.3.8. NSO Role in Data Quality Assurance

NSO should provide continuous data quality assessment across all sectors and ensure that this is increasingly based on use of registers and entered on a real time basis. More specifically, it should institute data quality audits, given it already has staff in the various sectors ministries under its common service [§9.1].

11.3.9. VDC and ADC Roles in Community Based Monitoring

The VDCs and ADCs (See §6.1), conceived as decentralized structures, should have their roles and mandates reviewed, with the possibility of empowering them to undertake additional data collection, service delivery monitoring and reporting roles beyond their original objective of community planning. These can be supported by the Area Executive Committee and the District Community Development Office of the Local Council. They would then constitute the implementing, monitoring and reporting bodies at community level [§4.13].

11.3.10. Kalondolondo Facilitation of Community Based Monitoring

Kalondolondo should be reformed to provide a more community-driven approach and possibly linked to University social and statistics departments and to religious organisations with community reach and to MPs, Councillors and chiefs, in order to provide capacity support to Ward/Area Development Committees and through them to VDCs for community based monitoring and use of Scorecards and to provide support for making W/ADC reports and data available electronically in English and for quality control and analysis of issues through NVivo or other software and generating automated real-time reports on a monthly basis [§4.13]. The new approach to community based monitoring should be developed and piloted in the same four RBM districts of Mchinji, Dedza, Mwanza and Karonga over the period January to July 2015, with IPMIS developing a window for the CBM monitoring of agreed indicators [§7.8].

11.3.11. Government Support for NGO Activity & Budget Reporting

Currently, NGOs are required to report to CONGOMA, including financial reports, but without a standard template, which could be aligned with that required for uploading to AMP in order to avoid excessive reporting. While the process, tools and infrastructure are in place, following initial training of NGOs in uploading data to AMP on NGO activity and funding, DAD should be given the political support and budget to enable on-going training and resources that will allow NGOs to provide data entry on their activities and funding, while ensuring that development partners and NGOs have an agreed protocol that will avoid double entry [§4.2].

11.4. Recommendations on Demand and Analysis

11.4.1. Automated Software-Generated Reports

The range of automated software generated reports should be increased and all made publicly available without restriction. In order to increase academic, civil society and government policy analysts, access to disaggregated data below the level of automated reports should be granted without challenge beyond identifying the user and requiring source acknowledgment. The M&E National Coordinating Committee should be empowered to agree with sector ministries in advance those few key incontrovertible indicators which will be collected and entered real-time at source for generation of automated reports at national and District levels [See §4.17 and related Recommendations 11.1.5; 11.2.2/23/25/26 on access and 11.2.6/7/23/24 on automated reports, above].

11.4.2. Inter-Sectoral Analysis

The lack of inter-sectoral analysis that informs policy and programming is a major weakness of the demand-side for M&E in Malawi. Inter-sectoral analysis should be promoted by M&E Division, including through specially commissioned thematic studies carried out by academics that are supportive of M&E at the national and District levels in order to highlight the package of investments and sequencing necessary to produce changed outcomes most effectively [See in particular §6.2; 8.1; 8.4; 8.5; 8.6 and elsewhere such as §1.1; 2; 3.2; 4.13; 4.16; 5.1 and Recommendation 11.4.1 above].

11.4.3. Cost-Benefit Analysis

M&E Division should commission analysis on cost-benefit of investments and effective resource allocation that delivers greatest development impact [see §8.3].

11.4.4. Accessible OPA Performance Assessments

OPA Performance Assessments should be made publicly accessible [See §8.3 and Box 3 on Malawi's OPA's and Box 4 on South Africa's equivalent].

11.5. Recommendations on Policy & Mandates

11.5.1. Re-thinking and Re-vitalising M&E Skills

The results of this study show that the reform of M&E in Malawi will need some organizational re-thinking – within individual institutions such as the MoFEPD, at the central level as well as at the district level. There are obvious skills and attitude requirements at all levels in order to elevate M&E from the current perception as an administrative to a more technical function, requiring highly developed M&E skills for those that staff the M&E units [See new Government's commitments to public sector reform under Context §2 and §3.4].

11.5.2. Prioritising M&E within Ministries

If the M&E system is to serve its purpose as a results based management tool, the M&E function needs to be elevated from its current peripheral role to a more central one by locating it under the direct control of the professional management that is also well versed in M&E and appreciates the importance and will actually prioritize M&E within each institution [See §3.2 and related Recommendations 11.1.1/2].

11.5.3. National Monitoring and Evaluation Policy

The M&E Reference Group, with technical support, should draft a "National Monitoring and Evaluation Policy", based on core principles such as data credibility, quality assurance, independence, transparency and access, to be approved by the M&E National Coordinating Committee and backed by legislation and the public sector reform agenda [§3.2; 6.2 and 8.1].

11.5.4. M&E Mandates

Mandates within the Divisions of MoFEPD and OPC need to be reviewed and clear responsibilities laid out, removing anomalies, such as placing PSIP under Development Division and ensuring that all M&E is facilitated by the M&E Division, where IPMIS development should be managed. Mandates need to be clarified for data collection, data consolidation, protocols and management, quality assurance and analysis [§9; 10].

11.5.5. M&E Policy and Revision of M&E Master Plan

As part of developing the new MGDS, the M&E National Coordinating Committee, with technical support as required, should prepare, as an integral part of the MGDS, an M&E Policy and Plan with clear targets for achieving a system of M&E that is central to an evidence-based development agenda of inclusion and equity. The policy should specify M&E requirements and standards. In the same connection, the M&E Master Plan should be reviewed and revised in view of gaps identified under this study, including addressing formal evaluation capacity. The Master Plan will enable operationalization of the M&E Policy [§3.2; 9; 10]

11.5.6. Legislative Support for Access to M&E

Advocate within the public sector reform agenda for a strong legal or administrative framework, including within the current public sector reform, to require all public sector agencies to undertake M&E and make its results accessible, which can be fulfilled in part by inclusion in pending legislation such as the Access to information Bill (2013) [§2 page 17; 3.4; 9.2].

11.5.7. MISO and M&E Associations and Champions

There is need to identify champions within the public sector to drive M&E in the country for accountability and learning. Strengthening of the performance M&E function needs capable people, with a degree of specialization and mindful of their key role. This is not the case due to the administrative approach to the M&E function resulting in the relatively low status of M&E staff. In order to facilitate a significant change of mindset, government with support from programmes like DEAP, should facilitate networking among M&E professionals to create a community of practice that has as its goal the professionalization of the M&E sector. Efforts to form an M&E association for Malawi are still at a nascent stage, and must be encouraged although they must be rooted in organic and self-sustaining efforts by Malawian professionals interested in M&E. There should also be an informal MISO Association for mutual support and exchange of ideas [§6.3].

11.5.8. M&E as Part of Public Sector Reform

As part of reinforcing M&E within the broader agenda of results based management, efforts should be directed at enhancing the professionalization of the top civil service management, as the decisive force in any reform effort. M&E and results management should be included in leadership and management training. If such programmes do not exist or are not regularly delivered, the situation must be addressed as part of the public sector reform. Programmes such as the DEAP must work with the public sector reform initiatives so that the support for capacity building for M&E is not isolated and ad hoc support provided for the duration of the project. Instead it must be embedded into a national training system for technical and managerial staff at all levels (central as well as districts) [§2 page 17; §3.4].

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13. LIST OF DOCUMENTS REVIEWED

(not including some unpublished internal reports0

13.1. Policy

Revised M&E Master Plan, 2012

GIZ Flow of Data Report

National Statistics Act 2013

National Statistical System Strategic Plan 2013 - 2017

National Statistical Office Strategic Plan

Strengthening Institutional Capacity for Development Effectiveness and Accountability Programme

MGDS Comprehensive Review

DAS review

MGDS II Results Framework

Malawi Growth and Development Strategy II (MGDS II) Results Handbook

MGDS II M&E Tracker Table Annex 2 of MGDS Annual Indicator Baseline & Targets

Malawi Post-2015 Development Agenda - National Consultations on post MDG agenda – 2013

NSS Strategic Plan

CABS 2013-14 PAF

Government PFM Plan

Department of E-Government Strategic Plan 2012/2013 – 2015/2016

13.2. Technical

Study on the demand and supply of evaluation in Malawi

Wild, L. & Harris, D., Nov 2011. Political Economy of Scorecards – Malawi. ODI

World Bank 2006. Citizen Oversight through Social Accountability – Malawi Social Action Fund & the Comprehensive Community Scorecard Process. PREM Findings #265

Assessment report on the functionality of DDBS

Capacity assessments for RBM

Study on the Demand for and Supply of Evaluation in Malawi (Kumwenda and Latib, 2013), Study Commissioned by DFID

PSIP Appraisal Manual

PBB pilot documentation (situation analysis report, draft manual)

Chet Chaulagai et al, 2005. Design and implementation of a health management information system in Malawi: issues, innovations and results. http://heapol.oxfordjournals.org/content/20/6/375.full.pdf

13.3. Published Reviews

CSEC PETS education Malawi 2011-12;

MDG Endline Survey. See http://www.nsomalawi.mw/images/stories/data_on_line/demography/MDG%20Endline/Malawi%20MDG%20Endline%20Survey%20Key%20Findings%20Report%20.pdf

MHEN (Malawi Health Equity Network), 2008. Service Delivery Satisfaction Survey Report;

IMF Malawi Country Report No. 14/37, Feb 2014. http://www.imf.org/external/pubs/ft/scr/2014/cr1437.pdf accessed 23 Aug 2014.

IFPRI's "Malawi's Farm Input Subsidy Programme – where do we go from here?" Policy Note 18, March 2014
http://www.ifpri.org/sites/default/files/publications/massppn18.pdf

Malawi Growth and Development Strategy Annual Reports

MDGs Annual Reports

MDGs report critic

JPSME Evaluation report

USAID. A Guide to Education Project Design, Evaluation and Implementation Based on Experiences from EQUIP2 Projects in Malawi, Uganda, and Zambia Education Management Information Systems

Public Expenditure Reviews (2013)

13.4. Unpublished Reports

ODI PETS Assessment Nov 2009

Budget Integration Assessment, Development Gateway, UNDP, 11 June 2014

13.5. Unpublished Data

District school returns on teachers and enrolment for EMIS

NAC data

13.6. Unpublished Records

Various monthly Area Development Committee reports

13.7. International Literature on M&E

(Various documents, published and unpublished)

Kusek, J. Z. & Rist, R. C. (2004). Ten Steps to a Results-Based Monitoring and Evaluation System – a handbook for development practitioners. World Bank.

OECD. June 2002. Glossary of Key Terms in Evaluation and Results Based Management. http://www.oecd.org/derec/dacnetwork/35336188.pdf

Official Statistics and Monitoring and Evaluation Systems in Developing Countries: Friends or Foes? http://www.paris21.org/sites/default/files/3638.pdf

UNDG: Handbook on Monitoring and Evaluating for Results, 2010

UNDG Handbook for Results Based Management (RBM)

Wireless Intelligence, 2012 – quoted in a report commissioned by IFC http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/02/TNM-Feasibility-Study.pdf

Annex 1 – Chart of Accounts[56]

Code Segment	Number of Digits	Meaning
Vote	3	Budget organization receiving the funds, e.g. "Ministry of Health"
Type	1	Recurrent, Revenue, Advance, or Development
Cost Centre	3	Vote-specific sub-organization, e.g. "Dedza District Hospital"
Division	2	Vote-specific sub code.
Donor	2	Organization or country financing the project.
Project	3	Vote-specific code uniquely identifying each active project.
Program	5	National Government program to which the project is contributing.
Activity	6	Unique code which gives the activity, objective, and output for the spending.
Chapter	1	Type of spending, e.g. "Expense", "Acquisition", etc.
Sub-Chapter	2	More specific breakdown of the type of spending, e.g. “Acquisition of Fixed Assets”
Sub-Item	4	Specific item which is being expended for, e.g. "Stationary"

Annex 2 – State of M&E in Malawi regarding Key Issues

Regarding M&E partnerships: there are initiatives that have been put in place, but which need to be more forcefully implemented. Sector Working Groups (SWGs) have been instituted, but most remain non-functional. Only six of the 13 SWGs were reported to be functional. The Sector Wide Approach programmes (e.g. Health, HIV and AIDS, Agriculture, Education) are another mechanism to facilitate participatory M&E. Joint sector reviews were also reported in the Water and Sanitation sector. This implies the need for strengthening these mechanisms, by among others ensuring structured reviews rather than a gathering of information by planning units in sector departments and reporting on sector indicators.

M&E Plans: The assessment noted that M&E Plans were available at the national and sector levels, but less evident at the district level. The M&E Master Plan and the MGDS results handbook provide the frame of reference for M&E at the national level by specifying elements of the national M&E system, as well as information requirements for monitoring the MGDS II. M&E frameworks were also reported to exist in the sectors (Health, Education, Transport and Public Works). Except for Mchinji district that was finalising the development of a localized M&E framework, the rest of the districts visited did not have frameworks. However, lack of funding for the plans seems to be the main constraining element to operationalizing the plans.

[56] From Budget Integration Assessment, June 2014, Appendix A.

Costed M&E workplans at various levels of operation: All agencies consulted reported having M&E work plans, largely based on annual work plans and strategic plans. However, a binding constraint was that these plans are not usually carried out as funds are not made available for M&E activities, despite budgeting for them. This was voiced as a key challenge across sectors and districts. This suggests that acknowledgement of the importance of M&E at agency level is token. Protecting the M&E budgets by tying them to a set of key M&E activities may assist in ensuring that essential M&E activities useful for the sectors and district are undertaken.

Periodic thematic surveys that support M&E. Thematic surveys such as on the performance of programmes and policies are key for M&E. Within the public sector, the HIV and AIDS sub-sector is a good example of an agency that undertakes thematic surveys that feed into the M&E system. However, this did not appear to be uniform across the sectors. In addition, in the MoFEPD, it was not clear whether thematic studies are commissioned with the sole purpose of learning. *This implies the need for integrating these into the plans for M&E in the country.*

Existence of databases that are useful to M&E systems: There were a number of databases that were observed, although their utility was confined to decisions within the sectors and rarely for performing analysis to provide insights into key trends for learning or accountability. These included the Health Management Information System in the MoH, the Education Management Information System, the Malawi Social Economic Database, the PSIP database and the Aid Management Platform. At the district level, District Databanks were mentioned, but, with one exception, these were not functional. This implies the need for considering linking up the databases and making them web-based, as well as investing in guaranteeing that the district databank is functional.

Routine Monitoring of key national policies, sector strategies and programmes: The MGDS review that is expected to occur every year was the most cited example of routine monitoring of policies, although, as noted above, sectors are also expected to undertake monitoring of sector strategies and policies. The MGDS review was said to be useful in providing updates on progress towards key sector indicators, but not necessarily the effectiveness of policies. With the post-2015 agenda likely to focus on outcomes of development initiatives, this implies the need to create measures that would enable the Government to track both the effectiveness and effects of policies, strategies and programs.

Supportive supervision and data auditing. The Ministry of Health and education were said to undertake supervision missions to ensure data that are collected are of acceptable quality. The NSO also embedded in its operations a data quality assurance mechanism. However, formal data quality audits were not common, with the exception of the National AIDS Commission (NAC) that carries out routine data quality audits. Given that the quality of data was cited as one of the key challenges affecting M&E, institutionalizing data quality audits at sector level is key. *This implies the need to develop capacities both at the MoFEPD and sectors to be able to undertake data quality audits in order to secure quality of M&E data at various levels.*

Evaluation and Research as part of M&E in the country. Among the key institutions undertaking research in the country are the Centre for Social Research and the Centre for Agriculture Research and Development (CARD). These are linked to the public sector academic institutions. The National Statistical Office also carries out research on request from interested parties, provided it does not compete with its routine agenda of surveys. The National AIDS Commission also organizes research and dissemination sessions for the sub-sector. However, it is unclear whether the research undertaken is linked with the M&E agenda in the country and is used for national level learning.

Using M&E information to improve results. The ultimate aim of the M&E agenda is to secure the utilization of information from the M&E systems for accountability and learning. The M&E Masterplan recognizes this need and has provided for a communication strategy to ensure M&E results are disseminated. Currently, the signature products from the national M&E system are the MGDS Review reports and the Millennium Development Goal Reports. As noted above, some sectors and sub-sectors also undertake dissemination of research and M&E results. Reporting enforced through the Organization Performance Agreement (OPA) approach ensure accountability for use of resources, but remain inward looking and not available to the general public. Learning for program and policy improvement is an aspiration of the M&E Master Plan, but operationalization has remained elusive. Nevertheless, if champions of utilization can be identified, and the utilization agenda actively pursued, there are prospects for improved use of monitoring and evaluation results. The case from South Africa illustrates how a clear framework for using M&E results for accountability can be effected.

Annex 3 – Answers to some of the Questions Raised at Inception

The assessment asked critical questions on:

Q: Who determines data requirements and content for M&E data at national level; within sectors; at district level; and within communities?

A: *Donors for the programmes they support. There is a disconnect between budgeting and disbursements, which are not being monitored for outputs and outcomes. Communities are eager to contribute to M&E and they largely do that, but their reports are not being systematically analysed or aggregated.*

Q: Who (institutions, cadres) is collecting M&E data for the national system? What is the quality of data being collected?

A: *Essentially line ministries, with variable quality from very poor in most sectors and inadequate in education and agriculture to reasonable quality in health.*

Q: What are the levels of complementarity/duplication; and integration/segmentation; in national Data collection systems?

A: *More segmentation than duplication. Each sector doing its own thing. Need to rationalise.*

Q: At what levels are M&E data analysed? What drives this analysis? What purpose is served and how is M&E data utilised?

A: *Piecemeal analysis to serve specific needs. Even MICS, DHS etc minimally utilise national systems, and thus there is no clear linkage between e.g. DHS and MGDS.*

Q: How is monitoring data that is collected by programme and project implementers independently verified?
A: *In general, not done.*

Q: What motivates cadres to collect data of good quality? Who checks data that is collected?
A: *This is one of the main problems with the system. It is not about technology, rather, it is about institutional systems that are not working. Technology alone will solve that. If the systems were working, even a paper-based system would yield the required results, although technology can help to ensure data is transmitted transparently from the lowest to the highest level. A genuine sustained intention to use data and analysis across Government and a willingness to respond to communities would transform the quality and flow of data. The key challenges are:*

- *Unclear leadership and direction;*
- *Poor institutional support and structures for M&E;*
- *Inadequate capacity;*
- *Poor financing structure.*

Q: What challenges are faced by data collectors?
A: *Lack of support in terms of resources, recognition, feedback and utilisation of their work in terms of responsive service provision.*

To explore the relationship between M&E and statistics, the consultancy analysed the role government statisticians in NSO have in delivering official statistics, against the growing focus on monitoring and evaluation indicators. Specific questions include:

Q: How should NSO position itself if it must respond to and retain credibility and meet the support of government's and donors' demand for statistics that are the relevant building blocks for results based M&E.

A: *NSO needs voice. NSO location under MoF is not giving NSO the necessary clout. NSO should actively (not reactively as is the case) determine M&E data needs and sell this to government and donors. The NSS and the Statistics Act gives NSO the mandate but it is not utilizing that. For example, NSO has a mandate to demand the major say in donor-funded national surveys, but currently NSO waits to be given a role e.g. in the Malaria survey where NSO largely played a minor role*.

Q: Which main indicators are demanded by key sectors and how can NSO deliver on the NSS to ensure that the relevant statistics are routinely and timely collected?

A: *The M&E National Coordinating Committee (Government, donors, universities and CSOs) should be involved in developing a key set of indicators that will then feed into MGDS and MDG monitoring*.

Annex 4 – Implementation Action Plan

The following suggested Action Plan should be reviewed and revised by the M&E Reference Group before final adoption.

		Nov 2014 – Jan 2015	Feb – April 2015	May – July 2015	Aug – Oct 2015
MoFEPD					
	Produce a leaflet and Press Release on M&E				
	Integrate IFMIS & AMP				
	AMP opened to NGO reports				
	Commission inter-sectoral & cost-benefit analyses				
	Develop a national M&E Policy & revise the Master Plan				
M&E Reference Group					
	Review Report Recommendations				
	DPs appoint M&E lead				
	M&E Reference Group reformed as an M&E Technical Working Group				
	Draft ToRs for IPMIS design using DHIS software				
	Advise on Indicator Rationalisation				
	Develop Equity Indicators				
	Agree indicators for automated reports				
	Oversee identification of cost-benefit indicators				
	Advise on Registers to be digitised				
	Advise on drafting a national M&E Policy				
	Support establishment of M&E and MISO Associations				
M&E National Coordinating Committee					
	ToRs drafted by M&E Division				
	Approve Report Recommendations				
	Approve Vision & Strategy				
	Approve IPMIS design				
	Establish IPMIS change management board				
	Commission IPMIS Implementation				
	Commission Indicator Rationalisation				
	Review M&E mandates within MoFEPD & OPC				
	Oversee negotiations for Smart-phones & Apps				
	Approve CBM component integration into IPMIS				
	Approve CBM indicators to be monitored				
	Review mandates of VDCs & ADCs for M&E role				
	Establish Evaluation Unit & Plan				
	Develop plan to boost M&E capability; seek funds				
	Approve Registers to be digitised				
	Establish Standardised Identifier Working Group				
	MNADA & MASEDA resourced with budget				
	HMIS instructed to activate automated reports				
	Establish District M&E Officers & career paths				
	Agree national Univ Statistical Analysis Diploma				
	Competitive negotiation of low cost connectivity				
	Approve the National M&E Policy & Master Plan				
	Influence administrative & legal frameworks for M&E as part of public sector reform				

IPMIS Implementation					
	Design commissioned				
	Implementation				
	IPMIS prototype field test				
	Establish human and hardware capacity for IPMIS				
	Roll-out to 7 Districts every 3 months				
Community Based Monitoring					
	Design CBM component and Obtain Funds				
	Implement CBM, institutional capacity and piloting				
	Establish web-based CBM databank				